

HUMOR APPRECIATION AS A MEANS OF PREDICTING
CREATIVE INDIVIDUALS

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CHAPTER I

INTRODUCTION

Theoretical Background

Humor is a multi-dimensional topic which has evaded scientific explanations for centuries. However, humor has certain qualities that lend themselves to investigation of the human personality. Previous studies have confirmed that individuals are consistent in their preferences for certain kinds of humor in relation to the mental set. Humor itself is a dynamic of the individual. The indirectness of humor makes it a tool that could be used to probe the deeper dynamics of the human personality.

In tracing the etymology of humor to Sanskrit, one finds the original meaning being ". . . he sprinkles, he moistens," as in urination (63). Over the centuries, its psychological connotations developed with the concept of the four chief body fluids, blood, phlegm, yellow bile, and black bile, as the determinants of temperament. The laugh phenomenon of spasmodic utterance of inarticulate sounds, facial distortion, and other combinations of bodily phenomena has been a topic of interest of philosophers and psychologists for centuries, as they have endeavored to try

to describe and classify the situations and the mental states with which it is associated.

In adopting a phylogenetical approach, laughter is referred to as a strict manifestation of the human instinct by Drever (15), Eastman (16), McDougall (41), McComas (40), and Kimmis (31). Kallen (30) adopts Freud's point of view that the origins of smiling and laughing started in the feeding situations. Darwin (12) and Yerkes (67) readily attribute laughter to the anthropoid ape and the chimpanzee. But Crile (9), continuing the phylogenetic approach, concludes that the origins of laughter paralleled a recapitulation of ancestral struggles against the attacks of biting and clawing foes. This approach explains the occasional use of the term "erotogenic" in relation to the "ticklish" zones, indicating a recognition of the sexual element with the erotic giggle associated directly or symbolically with sexual aggression. The phylogenetic approach gradually merges into theories that stress the general situations of victory or superiority, as exemplified by Rapp (49, p. 82), who suggests that all forms of humor are ultimately derived from prototypic "laughter of triumph in a primitive physical duel."

McDougall (41), showing little concern over the arguments related to the phylogenic origin, states that laughter is a biological device which protects the individual from excessive pity and sympathy to which the individual would otherwise be exposed because of his capacity for empathy.

Such an interpretation then would make laughter simply a device to facilitate ego protection by means of reaction formation, with one responding to pain rather than pleasure. Also, such a theory would suggest a close relationship between the emotions of mirth and sadness. Physiological experiments have tended to confirm the close relationship between laughing and weeping. Rapp (50, p. 24) says

Physiological experimentation (see Weinstein and Sender) seem to indicate that the thalamus and adjacent parts of the brain constitute a center for both laughing and weeping; and that the mechanism which controls these feelings is located in the hypothalamus.

In Freud's (22) terms, humorous situations, like any kind of play, always imply the working of the "pleasure principle" or an absence of the grimmer aspects of "reality." It is this relative divorce from reality which tends to make humor follow the laws of the "primary" rather than those of the "secondary" process, and which makes its workings similar in so many ways (including resort to such mechanism as displacement, condensation, overdetermination, etc.) to the workings of the unconscious as manifested, for instance, in dreams and neurotic symptoms; hence, the essential "normality" and healthiness of humor--a point which has been stressed by several psychoanalytic writers. But this was a conclusion made many years after his original work on humor. Freud's earlier theory is based firmly upon the work of Spencer (56), who first stated the theory of surplus energy

as a source of smiling and laughing in 1860. Pleasure or some form of pleasure is dycamogenic, and the energy thus created seeks an outlet. Spencer suggests that in humans "it is through the organs of speech that feeling passes into movement with the greatest frequency" (56, p. 460).

Freud (21, p. 228) also considers the appreciation of humor "one of the highest psychological achievements," the pleasure derived from humor arising from an economy in the expenditure of affect, humor being a defense process of highest degree and therefore the psychological correlative of the flight reflex and performing the task of preventing the generation of unpleasure from internal sources. But to Freud humor is individual pleasure with no need for overt communication of the humor. Twenty-three years after his book on wit (22), he expresses a more concise theory of humor in psychoanalytic terms. In humor, it is suggested, the ego adopts the point of view of the superego, and from this more exalted standpoint can look down upon the ego's normal anxieties and embarrassments with a certain lofty and stoic detachment. The role of the superego in the humorous case is a kindly one, enabling the ego to become "purged of guilt and conflict. It treats the ego rather as a benevolent adult might console a child in the minor catastrophes which loom so large in early life but take on less formidable proportions in the light of more mature experience.

Harms (26) expands humor from Freud's psychic explanations into a broader social context by saying that humor is "always" an expression of social intercourse. This is particularly interesting in connection with aggressive and sexual jokes. When the joke is told in a group, there is a sharing of guilt permitting the relaxation of repression, perhaps in analogy to the common overcoming of inhibitions between sex partners.

Ludorici (38, p. 74), using a singular theory based on Thomas Hobbe's definition of laughter as a sudden glory arising from some eminency in ourselves by comparison with the infirmity of others or with our own, gives thirty-six social situations liable to the production of laughter as "the expression of superior adaption."

In opposition to this view, Valentine (59, pp. 247-269), in his study based on systematic personal observations as well as on a survey of the literature, finds no less than fifteen different situations which elicit laughter in young children, for all of which analogues can be found in adult life. These are (1) expression of delight, (2) response to the laughter or smile of another, (3) sight of a bright or pleasing object, (4) tickling or jogging, (5) mild shock or surprise, (6) repetition, as in the "peep-bo" game, (7) the incongruous, (8) mere sight of face in the mirror, (9) teasing, (10) accomplishment of some new form of activity, (11) mild discomfiture of another, (12) laughter in the

social play, (13) laughter to make another laugh, especially after doing something naughty, (14) incongruity in words or ideas, as in puns, and (15) laughter at mere coincidences. Later Valentine reduces the number to seven categories, maintaining that no single explanation is adequate.

Humor and creativity have been linked by some investigators, Koestler (33) suggesting that a successful witticism is a creative act, and Torrance (58) implying that clowning or the use of humor is one of several effective adaptive techniques which the creative person uses to fend off, to some degree, group pressures toward conformity.

The three qualities mentioned have more in common. For example, the quality of getting along with others is accomplished by the use of humor, as Torrance (58) has pointed out which makes humor and wit important to the predominant goal of "getting along with others." The third quality logically follows, since peer acceptance is so important in this age range, emotional stability being directly tied to peer relation stability.

Earlier a gestalt interpretation of the formation of the joke was given in relation to creativity. Rollo May (44) gives a parallel in describing the creative force:

The idea, the new form which suddenly becomes present, comes in order to complete a hitherto incomplete gestalt with which we are struggling in conscious awareness. One can quite accurately speak of this unfinished pattern, this unformed form, as constituting the "call" which my unconscious answers.

How might the traits of creativity and humor appreciation be interwoven? Rogers (53, pp. 75-76) states that three qualities pervade the creative person: openness to experience, extensionality; an internal locus of evaluation (i.e., something created is something self-satisfying); and the ability to toy with new elements and concepts. These same qualities may be descriptive of the joke theme in that the theme of the joke is open to meanings other than the concrete or obvious, the joke is made to be self-satisfying, and the joke is the toying of new elements and new concepts in new relationships (i.e., the play is upon words and/or upon situations).

Maslow's (43) formulations of defense and growth seem to follow the analogy when he implies that creative people risk the production of new forms, risk conjoining elements that are customarily thought of as independent and dissimilar, and risk going off into new directions. Again, the joke is the conjoining of new elements and forms over the old and conventional; it is the attachment of new meaning (repressed) to old symbols where the meaning is shot off in a different direction.

The masks of laughter and weeping have been traditional symbols in the creative arts for centuries, so comedy has had a long association with the arts. To Bergson (4), comedy is the middle ground connecting the real and the imagined, art and life. He expands, saying that in ordinary life the individual is concerned with the concretely practical, while

the artist pursues more profound realities without reference to more practical affairs. Hence, the caricaturist, a specialized artist, is a person of creative ability. The caricature produced is based ultimately upon image (homeopathic) magic, whereby the distortion of features is intended to injure the person who is caricatured, suggest Kirs and Gombrick (32). Such aggression is sublimated and refined, coming into being only when a certain psychic mastery of the cruder forms of aggression has been obtained. Socially, the cartoon could only be accepted after the belief in image magic had declined to a point where it no longer evoked fear among the people.

An interesting comparison of artistic creation, wit, and daydreaming is drawn by Reik (51), when he points out that the daydreamer, unlike the poet or the wit, is ashamed of his fantasies, whereas the artist and the wit, through their social functions, have had their expressions purged of guilt.

The art form, Reik suggests, somehow stands for sublimation of the repressed wishes--a notion which is independently elaborated and carried somewhat further by Ehrenzweig (18, 19) in papers dealing with the general problem of unconscious form creation in art. According to this latter author,

. . . the aesthetic tendency in our surface perception, which tends to perceive or create the

aesthetically "best" gestalt, has the dynamic tendency of counteracting the crudely sexual or "angenital" tendency in depth perception. In virtue of overdetermination two projection processes occur simultaneously in different layers of our mind. Our depth mind, obeying the archaic pangenital urge, projects a sexual meaning into any form perceived, while our surface minds counteract this projection by projecting, in its turn, an aesthetic (good) gestalt into the external world (19, p. 88).

This kind of perception is at work in the appreciation of art forms generally as well as in caricature, and wit is, Ehrenzweig suggests, fundamentally of much the same nature as the "constancy principle" that in adult waking perception enables us to recognize the same "thing" in spite of great sensory variations in shape, size, color, brightness, etc. But while in waking perception this principle

. . . serves a very rational purpose of identifying real things in spite of their varying aspects, the recognition of similarity in a caricature, and the multiple thing perceptions of the child or of the dreamer, use this precious ability for an irrational form play (19, p. 97).

It is this irrational form play that is largely operative in wit and humor. In modern art, as in wit, the conscious gestalt principle is often baffled, and in both cases laughter may be imagined to result from discharge of the energy which, owing to the absence of gestalt formation, is dammed up and can find no outlet at the purely conscious level. Nevertheless, both art and wit represent a kind of confession, and this fact determines the attitude of the artist and wit towards the reception of their creation by others. A favorable reception is reassuring, and in the case

of witticism may enable the wit to join in the laughter. Such a reception shows that love and social approval have not been sacrificed by the veiled display of sexual or aggressive tendencies. If the audience approves of the form (art or wit), it is taken to approve also of the unconscious tendencies underlying it, and the pleasure of approval is added to the narcissistic pleasure of artistic or humorous form in which they have been clothed.

In the scope of general theories, there is a wide consensus that humor performs a useful social function, although there is some disagreement as to the fundamental nature of this function. These disagreements, however, might perhaps be largely reconciled if considered as applying to different aspects or kinds of humor. Bergson sees in laughter a corrective of harmful automatisms by making us aware of their absurdity--and therefore perhaps a factor conducive to social progress. Others, by their accent on relief or relaxation, point rather to a certain conservatism in the attitude induced by humor, inasmuch as laughter indicates that there is no need for serious effort or readjustment. Thus, McComas (40) regards laughter as, in its origin, a signal announcing good news, and Hayworth (27) similarly looks upon it as a social signal to the group that it might relax, while Baillie (3), Wallis (50), and, with a slightly different emphasis, Bliss (5) hold that it serves as a social corrective by preserving mental stability and social unity in the

face of the incongruous, the unexpected, or the socially disruptive. All, however, seem to agree that laughter, although part of the human biological equipment, is yet highly susceptible to conditioning and is thus capable of responding to, and in its turn facilitating, social change. With regard to such change, there seems still to be a lack of adequate study of the social implications of the things we laugh at. Such detailed studies might be very interesting. Myerson (45) points out that we are often roused to mirth by the real or supposed manifestations of mental disease, whereas bodily illness tends to arouse our sympathy or some other serious emotion rather than our ridicule. Frankl (20), Wilson (64), and Carpenter (7) have emphasized humor as having immense potentialities for good if it can be aroused in connection with social situations, the evil of which springs from our taking them too seriously (e.g., superstitions, out-of-date taboos, and, above all, intergroup hatreds and suspicions). Laughter, as Carpenter has put it, may sometimes be "glory in sanity," when it can induce our superego to take a view of reality unclouded by our irrational anxieties and animosities, and our ethical and social prejudices. Wilson declares that "humor may do more than a League of Nations to keep peace in the world" (64, p. 632). Frankl (20, p. 68) says, "Humor was another of the soul's weapons in the fight for self-preservation. It is well known that humor, more than anything else in the human makeup, can

afford an aloofness and ability to rise." Insofar as we shall have learned to laugh at the right things, we shall have freed ourselves from an immense burden of anxiety, confusion, cruelty, and suffering, and shall have taken a significant step towards attaining that godlike clarity of vision that will enable use to distinguish what is truly good from what is truly evil.

Since Freud's (21) classic book, Jokes and Their Relation to the Unconscious, the experimental method has shed much light on the multifaceted phenomenon of laughter and humor; however, little has been done toward explaining its ultimate nature. Experimentation has generally taken the form of the presentation of "humorous" stimuli, auditory or visual, the subject being asked to rank the items in order of funniness, or to give them marks in accordance with a predetermined scale.

It is popularly held that those who readily understand the comic situation possess a "sense of humor." This leads to a very pertinent question: can the sense of humor be measured and are there also ascertainable differences in the kinds of humor which appeal to different kinds or types of individuals? Cattell (8) suggests the following foundation to the substantiality of humor test: (a) individuals are consistent in their preferences for certain kinds of humor in relation to their mental set; (b) humor itself is a dynamic

a tool that could be used to probe deeper dynamics of personality.

Related Literature

In experimental observations of the role of laughter in the very young, some interesting records have been noted. For instance, the correlation between infants who smile early and those who laugh early has been found to be .80 by Washburn (61), while Ding and Jersild (14) have found similar results among preschool children. Piddington (48), reviewing the situations in which laughter is evoked in the young, notes two consistencies: (1) that laughter is always aroused in pleasant and interesting situations, and (2) that there is no urgent need for mobilization of specific bodily responses, this latter point being heavily stressed. In another study, Brackett (6), examining social interactions, has found a significant correlation of .75 between a child's presence in situations where other children laugh and frequency of the child's own laughter, while only .33 is noted for crying. Of specific interest is the fact that the children who rank high for liability to laughter prefer other children with the same tendency.

Laing (34), in checking the growth stages of humor development, has found the unusual to arouse laughter at an earlier age than the discomfiture of others. These two responses are well developed before anything approaching wit

is recognizable, and that wit in its rudiments is visual most often in social situations.

Taking the social situation to the primary group, mother and child, Grotjahn (25) has found that babies who lose their mothers and do not get new ones grimly follow one of two courses. Either the child develops schizophrenic psychosis in later life, or it simply gives up and dies. "Their facial expression in the first three months of life is correctly interpreted by the observer and their fate can be predicted" (25, p. 71). Generally, the first recordable smile varies from one week to two or three months, the first laugh from about three weeks to six months or more.

Reviewing other social factors that affect the appreciation of humor, Martin (42) has found that "fun fatigue" and "fun accumulation" occur in experiments where whole series of jokes are presented to a group. His findings demonstrate that the voluntary inhibition of laughter greatly reduces the purely mental appreciation of the comic.

Other studies appear to concentrate on singular aspects of the humorous stimulus and the individual personality traits involved in the reaction to humor. Hollingworth (29) has found that on repetition there are "waxing" and "waning" jokes. The former, in which the humorous effect actually increases with repetition, includes most frequently jokes that are objective, naive, or deal with self-induced calamity;

the latter include puns, sharp retorts, witty word play, and occupational jokes.

Desai (13) has shown in his extensive experiments on the subject of humor that surprise tends to intensify any emotion that follows it, thus enhancing the effect of the ludicrous, as it does that of the fearful, the repellent, and the irritating. Surprise, moreover, has something special in common with laughter, inasmuch as it suspends (at least momentarily) any pre-existing activity, pending some necessary readjustment. When surprise does not give rise to laughter directly but only as a secondary reaction to some emotion which precedes it (and which was the first reaction to the "surprising" stimulus), the laughter tends to be of the kind that is associated with some sense of inferiority or embarrassment, corresponding to the realization that the preceding emotion was unnecessary or inappropriate.

Eysenck (19) has obtained results that he claims to be in substantial agreement with those of the previously mentioned investigation and has discovered that there is little or no "conformity" in the sense of general agreement as to the relative humor values of various individual likes or different kinds of humorous material (cartoons, limericks, verses, etc.)--a result in accordance with that of some other investigators, such as Stump (57), Heim (28), and Omwake (47).

There are several characteristics that correlate with reduction in the appreciation of humor:

1. Overt anxiety groups express less mirth to cartoon stimulus than other psychotics groups (24, 36, 46).

2. Normals who are placed in social positions to make the self feel inadequate prefer humor where subject of the joke is depicted as inadequate (65).

3. There is an inverse relationship between ego strength and sex humor appreciation (11).

4. Subjects with constricted patterns on the TAT react with increased indifference and dislike to cartoons (54).

Concerning the question of humor appreciation and its relation to intelligence, Webb (62) has discovered that estimates of intelligence are liable to be unduly influenced in a favorable direction by the possession of a sense of humor. Omwake (46), Bracket (6), Ding and Jersild (14), and Landis and Ross (35) have concluded that intelligence in its turn is not a deciding factor in the appreciation of humor. Elizabeth Andrews (1) has developed three tests of imagination (e.g., originality of reactions to visual stimuli), and has administered them to a sample of preschool children. The correlation coefficients between the children's intelligence test scores and their scores on the three tests of imagination are .15, .02, and .03. McCloy and Mier (39) have administered to seventy-nine school children a test of "re-creative imagination," requiring the subjects to respond to the symbolism in abstract paintings, and correlated the

quality of their responses with their I.Q. scores. The correlation is .22.

Most investigators who deal with the question of who have relevant data have found that intelligence and humor are not highly correlated in a normal, fairly homogeneous population. For example, Cunningham (10) has found that the relationship between cartoon appreciation and intelligence is less than .30 in her study.

Getzels and Jackson (23), in their classic study, have found that children, being highly creative but only moderately high in I.Q., value and use humor more than children with high I.Q.'s only. In congruence, Welch (64) has administered to forty-eight college students a test requiring the reconstruction of ideas into new and original patterns, and has correlated the originality of their responses with their performance on the Wonderlic Intelligence Test. The correlation is .27.

One of the outstanding factors reported by the Getzels and Jackson "exploration with gifted students" is that on the Outstanding Traits Test the personality trait of "here is the student with the best sense of humor in the school" was ranked third out of the thirteen personality traits on this self-ideal most-sought rankings by creative adolescent students.

The only qualities they gave a higher rank are "getting along with others" ranked highest by

all students regardless of other personality characteristics and "emotional stability" (23, p. 39).

In opposition to this high appreciation of the sense of humor by the creative students are the high I.Q. students who rank the sense of humor as the ninth quality of outstanding traits.

Getzels and Jackson further state (23, p. 37) that

The prominence of sense of humor in the self-ideal of the creative adolescent as compared with the high I.Q. adolescent is very striking, . . . But the saliency of humor for the high creatives is not only a matter of self-report or choice-of wishful thinking, perhaps as might be possible on an instrument like the Outstanding Traits Test. Humor pervades all their free-response protocols. . . .

Following the lead of the studies of Koestler, the studies of Getzels and Jackson, and the studies of Torrance, Smith and White (55) have used airmen to test the hypothesis that wit and creativity are positively related. Smith and White have found that the sociometric wit and creativity give a positive correlation of .17. They consider this to be a significant correlation.

Such information leads one to wonder whether this appreciation of humor is characteristic of other adult creatives. Also, can the humor factor be a significant factor in the prediction of creative individuals?

As a consequence of the theory and experimental evidence associated with the relationship between humor and creativity, the following hypothesis is formulated for further study:

there is a significantly positive relationship between humor appreciation and creative ability.

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CHAPTER II

RESEARCH METHODS

Subjects

The subjects were students taking summer courses ranging from introductory psychology to graduate level psychology, and so were related on the basis of convenience. The mean age was 24.7 years with a standard deviation of 7.9 years. There were 75 males and 55 females, yielding a total N of 130.

Materials

The Mirth Response Test (hitherto referred to as the MRT) was originally devised by Redlich, Levine, and Sohler, as a psychodiagnostic technique (1). "The MRT in its present form consists of 20 cartoons by well known cartoonists which were originally published in popular magazines. Permission for the use of the cartoons was granted by the magazines and the cartoonists" (1, p. 3). Interest reliabilities ranged from .81 to .96. The MRT cartoons were mounted on eight inch by ten inch cards. The humor of the cartoons was chosen on the basis of the four basic popular themes: (1) aggression, (2) sex, (3) dependency, and (4) incongruity (see manual in Appendix). A modification was made in the scoring procedure by devising a six-point rating scale instead of the standard procedure which is utilized more for uncovering areas of

psychological conflict. Scale points "very poor," "poor," and "below average" were scored 0, 1, and 2, respectively. Scale points "above average," "good," and "very good" were scored 3, 4, and 5, respectively. The full scale range was 0 to 100. Also the method of presentation was revised for group testing purposes by projecting the cartoons on a screen enlarged to four feet by five feet. A standard opaque projector was used (see Appendix).

The Outstanding Personality Trait Test, (hitherto referred to as OPT) was the same OPT test as the one used by Getzels and Jackson (2) except that the word student was changed to person and the prepositional phrase in this school was deleted. Validity and reliabilities were strictly according to face value (see Appendix). The rationale of the OPT was that as the individual ranked the thirteen personality traits from most like to be like to least like to be like in order from one to thirteen, he was projecting a value system based on the individual idealized personality traits. The traits having values closer to one were the most valued traits, and the traits having values approaching thirteen had the least value to the individual. Only "Person M," "Here is the person with the best sense of humor," was used in this study. This trait had a scale value of one to thirteen and a theoretical mean of 6.5. Scores rising from 6.5 to 1 indicated favor for the personality trait of humor. Scores falling from 6.5 to 13 indicated that the individual

considered the trait of humor to be unimportant. This scale was used in the Getzels and Jackson study of high intelligence students with lower creative performance versus high creative students with lower intellectual performance. With these students the high creatives ranked "Person M" (Student M in their study) third while the high I.Q.'s ranked the same trait ninth (2). (See Appendix.)

The AC Test of Creative Ability (hitherto referred to as ACTC), Short Form A, was a paper-and-pen/pencil test designed to measure the quantity and the uniqueness of the ideas an individual can produce. The short form (Parts I, II, and V) was selected, because it showed consistently good discrimination between the criterion groups in the various validation studies described in the test manual. Only the Quantity scores for Parts I, II, and V were used, since studies showed very little loss of significant information. The correlations between the Quantity and Uniqueness scores obtained from the same part of the test were all above +.80 and were significant at the .01 level of confidence. The manual reported a reliability coefficient by the Kuder-Richardson estimate of internal consistency of .922 for the total test. Several tests of validity were used, lending credence to the test as outlined in the manual (see Appendix).

Parts I, II, and V were administered in forty-five minutes of testing time (see Appendix). A description of each part is as follows:

Part I: A twenty-minute test containing five possible situations. The subject listed as many possible consequences of each situation as he could. This part yielded both a quantity and a uniqueness score.

Part II: A ten-minute test of general reasoning ability containing five unusual and not necessarily true statements. The subject listed as many reasons as possible to explain the truth of the statements. This part yielded a quantity and a uniqueness score.

Part V: A fifteen-minute test of originality, containing a list of five common objects. The subject gave as many possible uses as he could think of for each object. This part yielded a quantity and a uniqueness score.

Normalized standard scores were provided with the following characteristics:

1. With negligible exceptions, the total range on the test would fall between 0 and 100 with a mean or average standard score of 50. Since only 3 out of 1,000 cases would fall at the extreme of the scale, i.e., below 20 or above 80, for practical purposes the range was regarded as from 20 to 80 with a mean of 50.

2. The distribution of the normalized standard score would always have the same normal shape, and the standard deviation of this distribution would always be 10.

Procedure

The MRT was modified for group use by projecting the cartoons to the size of four feet by five feet on a screen. A warm-up trial was used for Ss to become familiar with the cartoons. Each cartoon was presented for ten seconds with a three-second interval. On the second trial, Ss were to rate each cartoon according to the rating scale provided.

The following instructions were used for the MRT:

Fill in your name, age, and sex. Lay your pencils down and turn your rating scale over.

Twenty cartoons will be presented on the screen in two sessions. During the first presentation you are to make no marks, or overt responses, but otherwise enjoy each cartoon. When the cartoons are ready to be presented the second time, turn the paper over and rate each cartoon according to the six-point scale. You are merely to circle one of six numbers in the row with the proper cartoon. This is your evaluation of each cartoon.

The MRT was administered as described above. When the MRT was completed, the ACTC was administered. The standard procedure for administration as described in the ACTC manual and on the front of the ACTC test booklet was used (see Appendix). Following the completion of the ACTC, the OPT was administered according to the procedure prescribed at the top of the OPT test (see Appendix).

On the basis of scores on the preceding tests of humor and creativity by the sample, the following divisions were made to study the extremes of the sample: high humor group (24 Ss--12 males and 12 females--having the highest scores

on the Mirth Response Test scale); low humor group (24 Ss--12 males and 12 females--having the lowest scores on the Mirth Response Test scale). Two groups were then formed according to their creativity scores as follows: high creative group (24 Ss--12 males and 12 females--having the highest score on the AC Test of Creative Ability); low creative group (24 Ss--12 males and 12 females--having the lowest scores on the AC Test of Creative Ability).

Statistical Design

The working hypothesis was tested by stating the null hypothesis for sample and each sub-population. Pearson's coefficient of correlation, Fisher's t , and "F" test were the statistical tools used for analysis. The $P = .05$ level of significance was used for all tests of significance.

First, the entire sample was considered according to five variables: (1) MRT scores, (2) OPT scores, (3) ACTC scores, (4) age, and (5) sex. Correlations were conducted between these variables and tests of significances were applied. The sample was then divided into four sub-populations, Groups I and II and Groups A and B, each matched on sex. Groups I and II represented high and low-averaged MRT scores, respectively. Groups A and B represented high and low creative ability, respectively, as defined by the ACTC. Each group was analyzed in the same method as the sample using correlations t and "F" tests systematically between and within each group.

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CHAPTER III

RESULTS

Introduction

The results are discussed in four parts:

1. The sample, all Ss, their mean scores on the four variables MRT, OPT, ACTC, and age are given. Table I gives the means and variances for the 130 Ss and the five variables. Table II gives the correlations for these variables plus the sex variable.

2. A contrast and comparison is then drawn between the high humor group, H-Hs, and the low humor group, L-Hs, on the four variables of MRT, OPT, ACTC and age. Table III gives the means and standard deviations for the H-Hs and the L-Hs group, their mean differences and t ratio on the four variables, MRT, OPT, ACTC and age. Table IV gives the correlations between these variables.

3. A contrast and comparison is then drawn between the high creative group, H-Cs, and the low creatives, L-Cs, on the same four variables, MRT, OPT, ACTC and age. Table V gives the means and standard deviations for the H-Cs and L-Cs, their mean differences and t ratio. Table VI gives the correlations between these variables for each group.

4. The final contrast and comparison is between the H-Hs and the H-Cs, using the same four variables, MRT, OPT, ACTC, and age. Table VII gives the means and standard deviations for the H-Hs and H-Cs, their mean differences and t ratios. Table VIII gives the correlation between the four variables within each group.

Sample

Sample description.--The distribution for all 130 Ss on the MRT, OPT and ACTC is bell-shaped. The age variable is skewed to the right. The mean score for all Ss on the MRT is 53.15 with a standard deviation of 10.75. The mean ranking of person M on the OPT is 7.35 with a standard deviation of 2.77. The mean standardized score on the ACTC is 56.22 with a standard deviation of 9.72.

TABLE I

MEANS AND VARIANCE FOR TOTAL SAMPLE (N = 130)

Variables	Means	S.D.
MRT	53.1461	10.7468
OPT	7.3461	2.7671
ACTC	56.2230	9.7240
Age	24.6538	7.8551

Appropriate coefficients of correlation are compared between each of the two predictive measures of humor

appreciation (MRT and OPT) and the creativity measure (ACTC) as made relevant to the tenability of the hypothesis. It may be observed in Table II that the coefficients of correlation between the MRT and the ACTC and between the OPT and the ACTC are .11 and .03, respectively. It may also be observed that the correlation between the two predictive variables, MRT and OPT, is not significant, .12. Also it may be observed that the coefficient of correlation between age and the MRT, the ACTC, and the OPT is .09, .04, and $-.05$, respectively. Each correlation is insignificant.

TABLE II
COEFFICIENTS OF CORRELATION FOR TOTAL
SAMPLE (N = 130) *

	MRT	OPT	ACTC	Age	Sex
MRT	. .				
OPT	.12	. .			
ACTC	-.11	.03	. .		
Age	.09	.04	-.05	. .	
Sex	-.03	.14	-.14	.04	. .

*None of the coefficients were significantly different from a population coefficient of zero.

H-Hs versus L-Hs

Comparative means and measure of variance.--Observation of Table III shows a mean difference of 30.5 points on the breaking variable, MRT, the significance of which is beyond

P < .01 level. However, it is observed that the mean differences on the OPT, ACTC and age variables are -.7083, -1.0417 and .5833, respectively, all of which are insignificant differences. Therefore, no tenability is shown for the hypothesis.

TABLE III
H-Hs VERSUS L-Hs MEANS, MEAN DIFFERENCES,
VARIANCE AND t RATIO

Tests and Age	H-Hs		L-Hs		Mean Difference	t Ratio	Level of Significance
	Means	S.D.	Means	S.D.			
MRT	68.46	6.4	37.69	6.0	30.50	16.6561	P < .01
OPT	6.33	2.8	7.04	2.8	- .71	- .8602	NS
ACTC	56.08	10.8	57.13	11.5	- 1.04	- .3169	NS
Age	24.96	8.9	24.38	10.3	.58	.2056	NS

In observation of Table IV, it is found that the two predictive variables (MRT and OPT) show an insignificant positive relationship in each group H-Hs = .05 and L-Hs = .13. Appropriate coefficients of correlation were compared between each of the two predictive measures of humor appreciation (MRT and OPT) and the creativity measure, ACTC, as made relevant to the tenability of the hypothesis. It may be observed that the coefficients of correlation between the MRT and the ACTC and between the OPT and the ACTC are .30 and -.22 respectively for the H-Hs and -.07 and .17 respectively for

the L-Hs. Although no correlation is significant, the .30 of the H-Hs is the most powerful statistical evidence in support of the hypothesis. In comparing the age variable, some interesting results are shown in that fairly strong positive direction is shown for the H-Hs on the MRT and ACTC while the direction is reversed for the L-Hs on the MRT and ACTC.

TABLE IV
COEFFICIENTS OF CORRELATIONS FOR H-Hs AND L-Hs*

	H-Hs			L-Hs		
	MRT	OPT	ACTC	MRT	OPT	ACTC
OPT	.05			.13		
ACTC	.30	-.22		-.07	.17	
Age	.42	-.03	.27	-.18	.20	-.10

*N for each group = 24 (12 males and 12 females).

H-Cs versus L-Cs

In Table V it may be seen that there is a mean of 27.04 points on the breaking variable, ACTC, which is significant well beyond the $P < .01$ level. It is exhibited that the mean differences on the MRT, OPT and Age variables are -4.42, -.04, and -1.96, respectively, demonstrating nonsignificant differences, unfavorable evidence for the tenability of the hypothesis.

TABLE V
H-Cs AND L-Cs MEAN AND VARIANCE*

Tests and Age	H-Cs		L-Cs		H-Cs versus L-Cs		
	Mean	S.D.	Mean	S.D.	Mean Difference	t Ratio	Level of Significance
MRT	51.54	14.24	55.96	7.30	- 4.42	- 1.3237	NS
OPT	7.79	2.27	7.83	3.04	- .04	- .0526	NS
ACTC	70.29	4.64	43.25	5.15	27.04	18.7068	P < .01
Age	23.67	6.22	25.63	12.41	1.96	- .6767	NS

*N for each group = 24 (12 Males and 12 females).

In Table VI, it is demonstrated that between the two predictive variables (MRT and OPT) an insignificant positive relationship of .33 and .25 is shown for the H-Cs and the L-Cs, respectively. However, this relationship is stronger for the H and L-Cs than for the H and L-Hs. Appropriate coefficients of correlation are compared between each of the two predictive measures of humor appreciation (MRT and OPT) and the creativity measure (ACTC) as made relevant to the tenability of the hypothesis. Examination shows that the coefficients of correlation between the MRT and ACTC and between the OPT and ACTC are -.04 and -.17 respectively for the H-Cs and .27 and -.10 respectively for the L-Cs. No correlation is significant, and it is noted that three of the four correlations are negative, which renders untenable

the hypothesis under consideration. In comparing and contrasting the age variable, it is observed that the H-Cs correlations of coefficients of the MRT, OPT, and ACTC are .55, .42 and -.40, respectively, while the L-Cs correlation coefficients are -.09, .04 and .01, respectively. This may be interpreted as follows for the H-Cs: as the age increases humor appreciation is sought and used more, while the reverse is true for creativity. No significant relationship is found for the L-Cs and the age variable.

TABLE VI
COEFFICIENTS OF CORRELATIONS FOR H-Cs AND L-Cs*

	H-Cs			L-Cs		
	MRT	OPT	ACTC	MRT	OPT	ACTC
OPT	.33			.25		
ACTC	-.04	-.17		.27	-.10	
Age	.55	.42	-.40	-.09	.04	.01

*N for each group = 24 (12 males and 12 females).

H-Hs versus H-Cs

It is through comparison of the high groups that the strength of the hypothesis is hoped to be supported in the most significant manner; however, the hypothesis is not supported, as is exemplified by Table VII and VIII. In Table VII, it may be discovered that the mean difference of the predictive variables (MRT and OPT) for the H-Hs and

H-Cs are 6.92 and -1.46 respectively. The mean difference for the creativity variable is -14.21. Ideally, there should be no significant differences between these variables for tenability of the hypothesis.

TABLE VII

H-Hs AND H-Cs MEANS AND VARIANCE*

Tests and Age	H-Hs		H-Cs		H-Hs <u>versus</u> H-Cs		
	Means	S.D.	Means	S.D.	Mean Difference	<u>t</u> Ratio	Level of Significance
MRT	68.46	6.42	51.54	14.24	+ 6.92	5.1938	P < .01
OPT	6.33	2.75	7.79	2.27	- 1.46	-1.9609	NS
ACTC	56.08	10.77	70.29	4.64	-14.21	-5.8086	P < .01
Age	24.96	8.86	23.67	6.22	+ 1.29	.5720	NS

*N for each group = 24 (12 males and 12 females).

Appropriate coefficients of correlation are compared between each of the two predictive measures of humor appreciation (MRT and OPT), and the creativity measure (ACTC) as made relevant to the tenability of the hypothesis. In Table VIII the coefficients of correlation between the MRT and the ACTC and between the OPT and the ACTC for the H-Hs and the H-Cs are, respectively, .30, -.04 and -.22, -.17. With no correlation being significant, the tenability of the hypothesis that there will be a significantly positive relationship between humor appreciation and creative ability is not supported.

Age proves to be the only correlation to approach significance in both groups; the reason at this point is speculative but should prove interesting for further research.

TABLE VIII
COMPARISONS OF CORRELATIONS OF H-Hs AND H-Cs

	MRT		OPT		Age	
	H-Hs	H-Cs	H-Hs	H-Cs	H-Hs	H-Cs
ACTC	.30	-.04	-.22	-.17	.27	-.40
Age	.42	.55	-.03	.42		
OPT	.05	.33				

The results of this study do not agree with the conclusions of the Smith and White study and the Getzels and Jackson study, which have been the cornerstones of this investigation. Re-evaluation of these studies indicates possible faulty conclusions. First, Smith and White begin their discussion section by stating that "The correlation between wit and creativity supports the first hypothesis, and Koestler's (1961) description of a witticism as a 'creative act'" (1). This conclusion is based, by Smith and White, on the following results:

1. "Creativity and wit sociometrics were significantly correlated, $r = +.17$ ($P < .05$) (p. 132).
2. "A correlation of $+0.14$ between the joke tally and creativity was not significant (1, p. 132).

3. "There were no significant differences between non-sarcastic wits and nonwits on creativity (1, p. 133).

4. "The sarcastic wits themselves were higher on creativity scores . . ." (1, p. 132).

The validity of the conclusion weakens when the basic facts of the study are isolated and exposed. Two of the four instances give information in support of the wit as being a creative person with the qualification that the wit be a sarcastic wit. But contrary results are also presented in results two and three where the profuseness of attempted witticism by the individual or when sarcasm is omitted from the witticism. The stated conclusion of Smith and White breaks down for lack of strength. Further doubt is cast by analysis of "construction" and "words" of the conclusion of Smith and White. Wit which "refers to the ability to perceive the incongruous and to express it in quick, sharp, spontaneous, often sarcastic remarks that delight or entertain," (2, p. 1679) is construed to compare with witticism which is simply "a witty remark" (2, p. 1680). To draw the analysis into clarity, wit, which is an ability, is substituted for witticism, an action (wit = witticism = creative act). By definition, this logic and usage is faulty because wit is not equal to witticism. In fact, the findings of the Smith and White study are either related to different subject matter than those under investigation in this thesis, or

when their findings are related, it is congruent to the findings of this thesis.

Considering the Getzels and Jackson study, an interesting possible description is found. It will be remembered that the OPT has been taken from the Getzels and Jackson study except that "Person" has been substituted for "student" and prepositional phrases like "in this school" have been deleted to make the test applicable to the sample population. As innocent as these substitutions may seem, they could very well be critical. The OPT test may have been in reality a sociogram in the Getzels and Jackson study instead of a simple ranking of preferred traits as the study implied. In actuality, when the child is asked to rate a trait, he may not think of the trait or of his possessing it but of another person who accentuates the trait and with whom the child identifies. For example, Bob might say to himself, "Everybody likes John. John is funny. I would like to be like John so I want to have the best sense of humor." This is extremely pertinent when the group tested is well solidified over a long standing period as in the sample of Getzels and Jackson. What the child is really doing is picking friends, not idealized traits. The high I.Q.'s and the high creatives could very easily have different orientation toward certain friends. In a more transient population, like a college population, the same mental process may exist, but the reference group may be so varied that no consistency in

reference groups can exist except, perhaps, for figures that are national or international in scope. The importance of these possible facts, in combination with the test results, indicates that the OPT simply is inadequately or misleadingly interpreted as used in the Getzels and Jackson study.

Suggestions for further study should include a method for correcting any systematic bias that might occur if Ss tend consistently to score things as favorable or unfavorable. In this vein, a more suitable means of recording a humorous reaction could be used. If a method could be devised to measure a humor reaction directly physically, then the control problem of ranking bias would possibly be erased. The physical measurement of humor appreciation is conceivable, but such endeavor goes beyond the scope of simple neurology and this thesis.

Conclusion

In making a full battery of correlations, none of the variables are significantly correlated. However, some obscure trends may be observed. Starting with the number one variable, humor appreciations (MRT) show a positive relationship to the number two variable, "the person with the best sense of humor" (OPT), which indicates some relationship between identifying with humorous people and expressions of appreciation to humorous stimulus. In comparing humor (MRT) to creativity (ACTC), an inverted relationship exists. This is

questionably inconsistent with the conclusions of the Getzels and Jackson (3) and Smith and White (1) studies. But re-evaluation of these studies has cast serious doubts on the validity of their conclusions. Smith and White have erred by using faulty semantic differentiation when drawing a conclusion from their results. Doubt also is cast on the Getzels and Jackson inferences from the OPT, the results being incorrectly defined in relation to the conclusions drawn. These two doubts have been shown to be significant questions in the Getzels and Jackson study using the OPT and also in the Smith and White study. The hypothesis as formulated has not aspired to the levels of statistical significance, partially because the overt implications of the Getzels and Jackson studies and the Smith and White studies are misleading and/or inapplicable to this study, this statement also inferring that the tools of investigation would therefore not be transferable because this would be a shift in contextual usage of the instruments.

On the whole, humor appreciation and age have very little relationship in the age range of 17 to 50, supporting the idea that humor appreciation is indifferent to age and is a consistent personality trait. Such consistency makes humor appreciation amenable to personality study. However, creatives cannot be predicted by their responses to the MRT or the OPT or any combination of the MRT and OPT to age.

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CHAPTER IV

SUMMARY

A review of the literature reveals a deficiency of knowledge in regard to the relationship of creativity and humor. The working hypothesis, as stated in Chapter I, as a means of evaluation of the results is that there is a significantly positive relationship between humor appreciation and creative ability.

The experimental sample consisted of 130 students, 75 males and 55 females enrolled in the first six weeks of summer school. Ss ranged from master's level to freshman level. Each S rated 20 cartoons on a six-point scale of humor. An average score was obtained giving the MRT score. Ss obtained a creative ability raw score from the ACTC which was converted to a standard score according to the ACTC manual's conversion tables. Ss obtained an affinity for humorous personality trait scores from the OPT. Age and sex were attributed to each S for statistical analysis.

Two procedures of investigating the relationship between humor appreciation, creative ability and other variables were utilized. Procedure I consisted of determining the coefficients of correlation between humor appreciation and other variables under investigation. Procedure II consisted

of composing a high humor appreciation group from the sample and comparing it to the high and low creative group and the low humor group in regard to the variables under investigation.

Results of the Statistical Analysis

The hypothesis has not been supported. Doubt has been cast on the studies purporting to support such a hypothesis, and faulty logic and inferences have been found to exist in these studies.

APPENDIX A
THE
MIRTH RESPONSE
TEST

FORM I

MANUAL FOR ADMINISTERING AND
SCORING THE TEST

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In an earlier paper () a preliminary report on the development of a projective technique employing humor was described. Cartoons from popular magazines were used to explore personality dynamics and the results of over eighty cases were reported. The inferences and interpretations were founded upon postulates derived from Freud's theory of humor ().

Since the publication of the first paper a number of further studies have been reported.(). Other studies are expected to be published soon. A body of data has now been accumulated with the test which indicates its usefulness as a research and projective tool.

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Working Postulates

Freud assumed that the positive humor response was associated with a release of repressed wishes, in which defenses were momentarily rendered unnecessary, the saving in energy required for such defenses being the critical factor in the response. The formal elements of the humor stimulus, such as incongruity, condensation, reversal of meanings, serve to disguise the inhibited wishes to the extent that they can be expressed safely.

On the basis of Freud's theory we have derived three working postulates about the relationship between the humor stimulus and the humor response. These postulates are:

1. When a stimulus elicits a "positive" i.e. humorous response, anxiety about some need has been aroused and suddenly reduced.

2. When a humor stimulus is responded to with indifference, minimal or no anxiety has been aroused either (a) because there is no basic conflict about the needs involved in the humor stimulus, i.e., the needs are ego-syntonic, or (b) the needs are so deeply repressed or controlled that they cannot be activated sufficiently for anxiety to be aroused.

3. When a humor stimulus evokes a "negative" i.e. nonhumorous response, such as disgust, shame, guilt, horror, then anxiety about some need has been aroused, and this anxiety has not been reduced or dissipated.

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A corollary postulate is: when a humor stimulus evokes an intense response, either positive or negative, the need involved is nuclear in the personality.

We have recently formulated four additional hypotheses to supplement the others. There are:

1. A mirth response to a humorous stimulus is associated with a reduction in anxiety.
2. The greater the amount of anxiety that is reduced the greater will be the mirth response.
3. If the anxiety evoked by a humorous stimulus is too great, there will be no mirth response, but, on the contrary, an unreduced anxiety reaction.
4. If the anxiety evoked by a humorous stimulus is too low or is absent then the anxiety reductions will be minimal and there will be relatively little mirth.

The Test

The Mirth Response Test in its present form consists of 20 cartoons by well known cartoonists which were originally published in popular magazines. Permission for the use of the cartoons was granted by the magazines and the cartoonists. The cartoons, blown up to 8"x 10" and mounted, were chosen on basis of certain themes which were considered to be of general importance. Four theme areas in particular were sought:

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1. aggression against figures and institutions like authority, social class, spouse, parent, employer, religion, law, doctors, and marriage;
2. sex -- including such figures as sexually aggressive as well as passive men and women, impotence, scepophilia, and immorality;
3. dependency -- by such figures as children, inadequate men, sick men, and women; and
4. incongruity - themes dealing with the impossible or the unexpected.

Interpretation of the Test Data

On the basis of certain aspects of the test responses it is possible to make meaningful inferences about the subject. Such inferences follow both from our hypotheses about the nature of the humor process and from principles commonly applied in projective tests to assess the significance of response faults. For example, it is assumed that failure to comprehend a cartoon, where there is reason to believe that the subject is intellectually capable of understanding it, may reflect conflict and anxiety about the cartoon. Again, where a cartoon is basically understood, but the aggressive features of it are mitigated in the interpretation, it is assumed that there exists conflict and anxiety over the theme. Verbalizations of dislike and disparagement, expressions of impotence or doubt, reservations about the interpretation, distortions of details not compatible with

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intellectual level, stress on the role of one or another of the cartoon characters, all these are taken into account in arriving at some understanding of the dynamics of the personality of the subject.

-6-

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DIRECTIONS FOR THE ADMINISTRATION OF THE
MIRTH RESPONSE TEST (MRT)

There are three parts to the MRT:

1. Free Expression
2. Sorting
3. Interpretation and Inquiry

1. FREE EXPRESSION

The set of 20 cartoons are presented to the subject with the instructions to look them over one by one in order to get familiar with the stimuli. The subject is encouraged to make himself comfortable and to enjoy the cartoons. No questions are asked by the examiner during this presumably casual review of the cards.

The examiner is seated comfortably near the patient and notes the spontaneous responses of the subject to each cartoon as it is turned over face down on the table. These notations are made in a simple code as inconspicuously as possible although no attempt is made to hide what is done. A record is first made of the time spent by the subject in examining each cartoon. Notation is then made of the overt Mirth Response in terms of:

1. Facial expression -- smile (kind), frowns, grimaces, etc.

--2--

2. Audible sounds -- laughter (kind), expressions of displeasure or disgust, etc.

3. Comments made spontaneously.

The subject is usually aware of the activity of the examiner but under normal circumstances he quickly becomes engrossed in the cartoons and pays little attention to the examiner. In those unusual cases where there is excessive concern with what the examiner is doing and it is found that it interferes seriously with the spontaneity of the Mirth Response the Examiner can discontinue these notations but make use of this information in the evaluation. The Mirth Response may also be noted in the second part of the test for similar purposes.

2. SORTING

After O has looked at all the cartoons, he is asked to sort them into three separate piles: (1) those he likes (L); (2) those to which he is indifferent (I); (3) those he dislikes (D).

He is then asked to select the three cartoons he liked the best among the (L) group, and the three he disliked the most among the (D) group.

3. INTERPRETATION AND INQUIRY

In this last step a non-directive inquiry is conducted into the subject's reactions and understanding of each cartoon in sequence. Questions like these are asked:

-10-

1. Tell me about the cartoon. What is the joke?
2. What is supposed to be funny about it?
3. What is funny or unfunny about it to you?
4. What is there about the cartoon that you like or dislike?
5. Why did you choose this cartoon as the most liked or the most disliked?
6. In conducting this inquiry, the following things are looked for:
 1. Free associations to the cartoon
 2. Comprehension of the theme and the joke
 3. Distortions of content such as mitigation, denial, or exaggeration or insertion of aggressive or sexual content.
 4. Cartoon figures with whom O identifies and toward whom he feels hostile.
 5. Allusions to basic drives - conscious and unconscious attitudes about sex, aggression, passivity, masculine and feminine strivings, etc.
 6. Verbalization - adequacy of expression, equivocation, qualification, pedantry, use of language, etc.
 7. Social status identifications, attitudes towards social

-11-

institutions, authority, religion, etc.

8. Scotomata in perception, misinterpretations mis-comprehensions, etc.
9. Relation between intellectual function and emotional control. Coincidence of verbalized attitudes and Mirth Response. Example: Is subject overcritical of the cartoon yet laughing at it?
10. Types of cartoons in which anxiety is manifest.

Finally, the subject is asked to evaluate his own sense of humor. What kinds of things he finds funny. What kinds he finds not funny. How he expresses his mirth. And last of all, he is asked to tell his favorite joke, and if he can't remember any, a humorous incident, or any joke that first comes to mind.

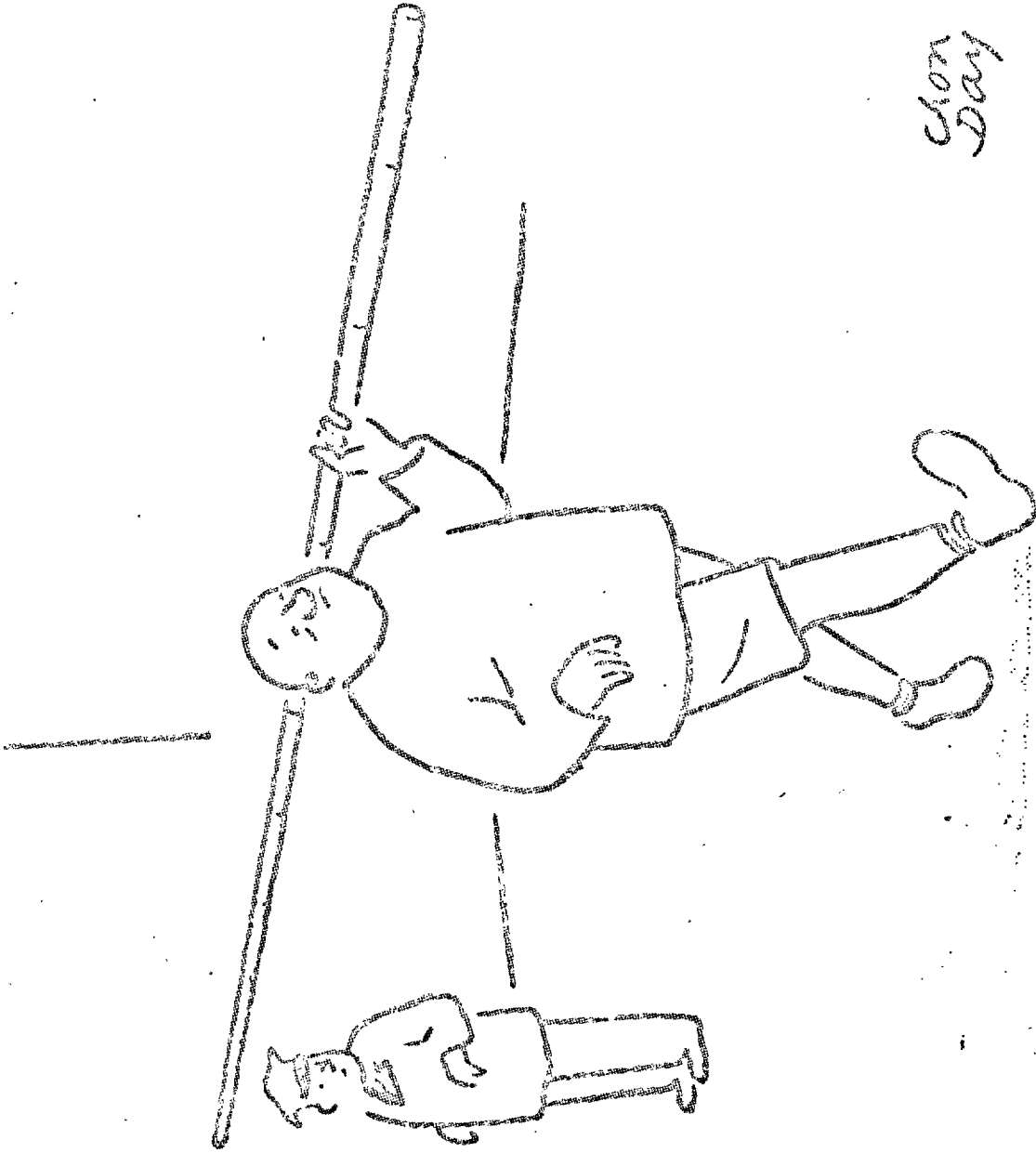
APPENDIX B

MBT FL. 5-10g Scale

Name _____ Course Number _____
 Age _____ Course Period _____
 Sex _____

Cartoon Numbers	Very Poor	Poor	Below Average	Above Average	Good	Very Good
#1	0	1	2	3	4	5
#2	0	1	2	3	4	5
#3	0	1	2	3	4	5
#4	0	1	2	3	4	5
#5	0	1	2	3	4	5
#6	0	1	2	3	4	5
#7	0	1	2	3	4	5
#8	0	1	2	3	4	5
#9	0	1	2	3	4	5
#10	0	1	2	3	4	5
#11	0	1	2	3	4	5
#12	0	1	2	3	4	5
#13	0	1	2	3	4	5
#14	0	1	2	3	4	5
#15	0	1	2	3	4	5
#16	0	1	2	3	4	5
#17	0	1	2	3	4	5
#18	0	1	2	3	4	5
#19	0	1	2	3	4	5
#20	0	1	2	3	4	5

Chon Day



#1





"Which one would you choose, Mad?"

Courtesy of True, the Name Magazine.



“I don't know where you're going, but I'm going to find you.”

© 1954 by [illegible]



"On wall, it won't be long 'til he's old and neglected like me!"



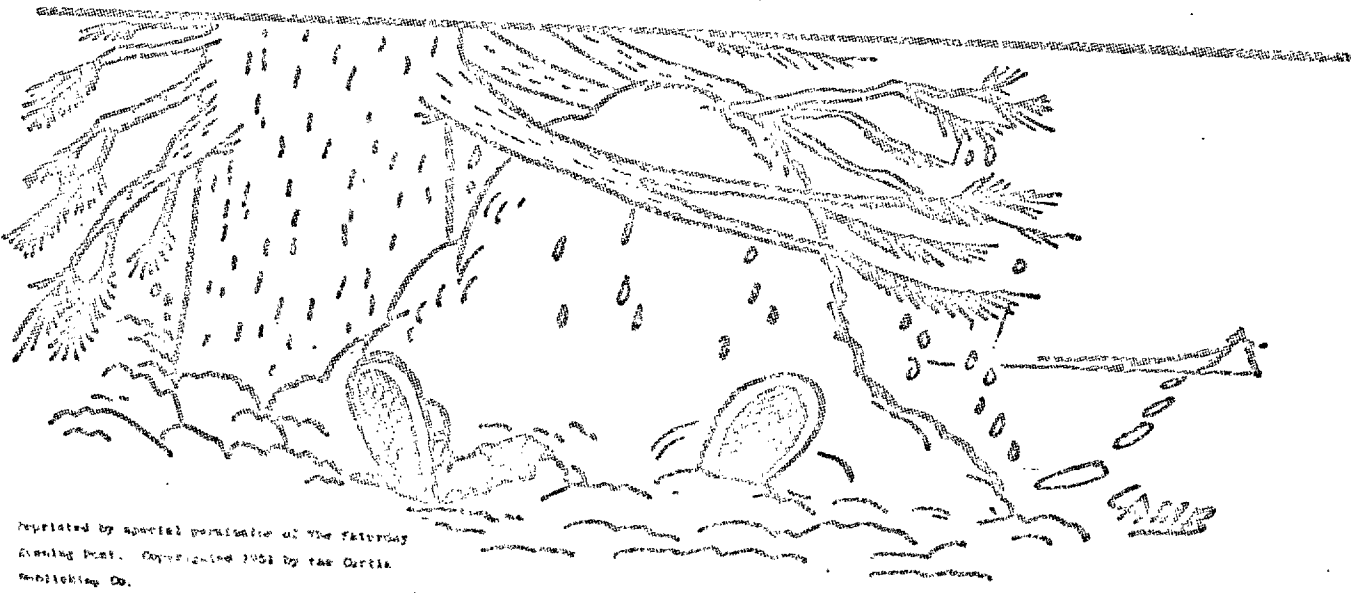
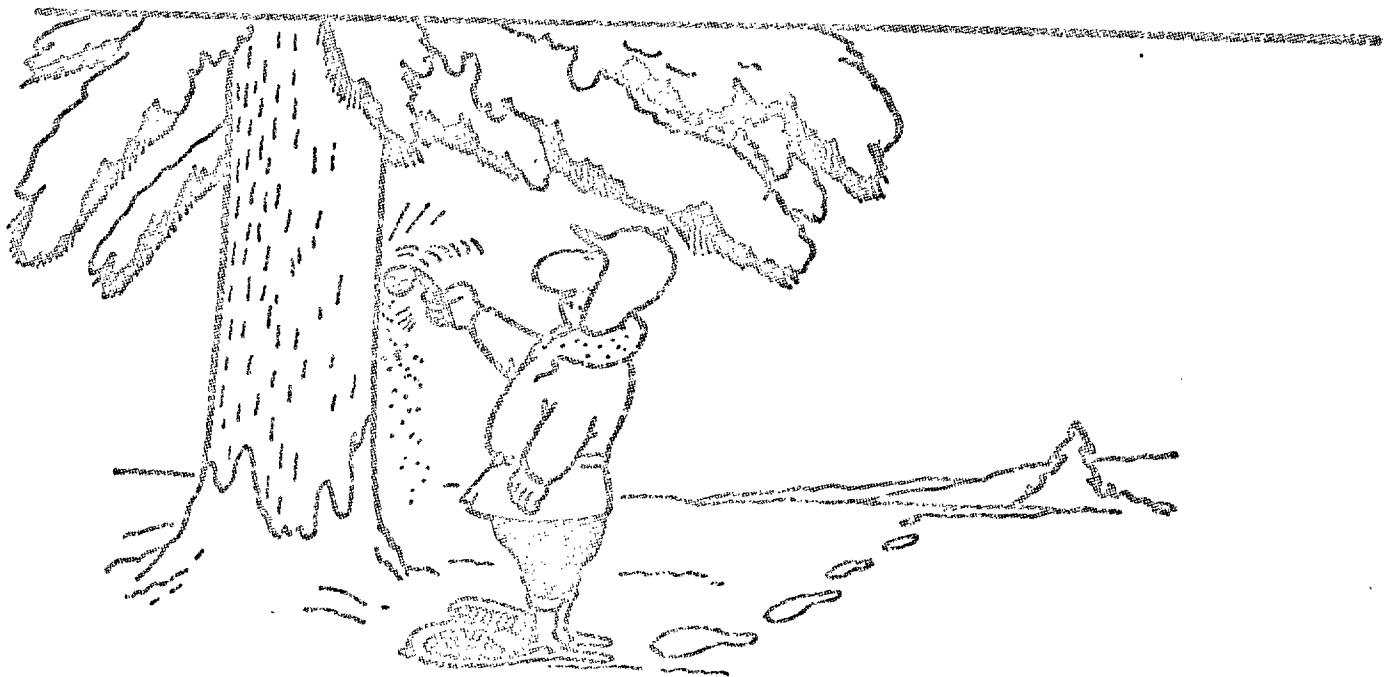
Courtesy of TIME, the Year's Magazine.

“Outside of a slight neurosis, Miss Hewitt, you’re in perfect shape . . . & that’s all.”

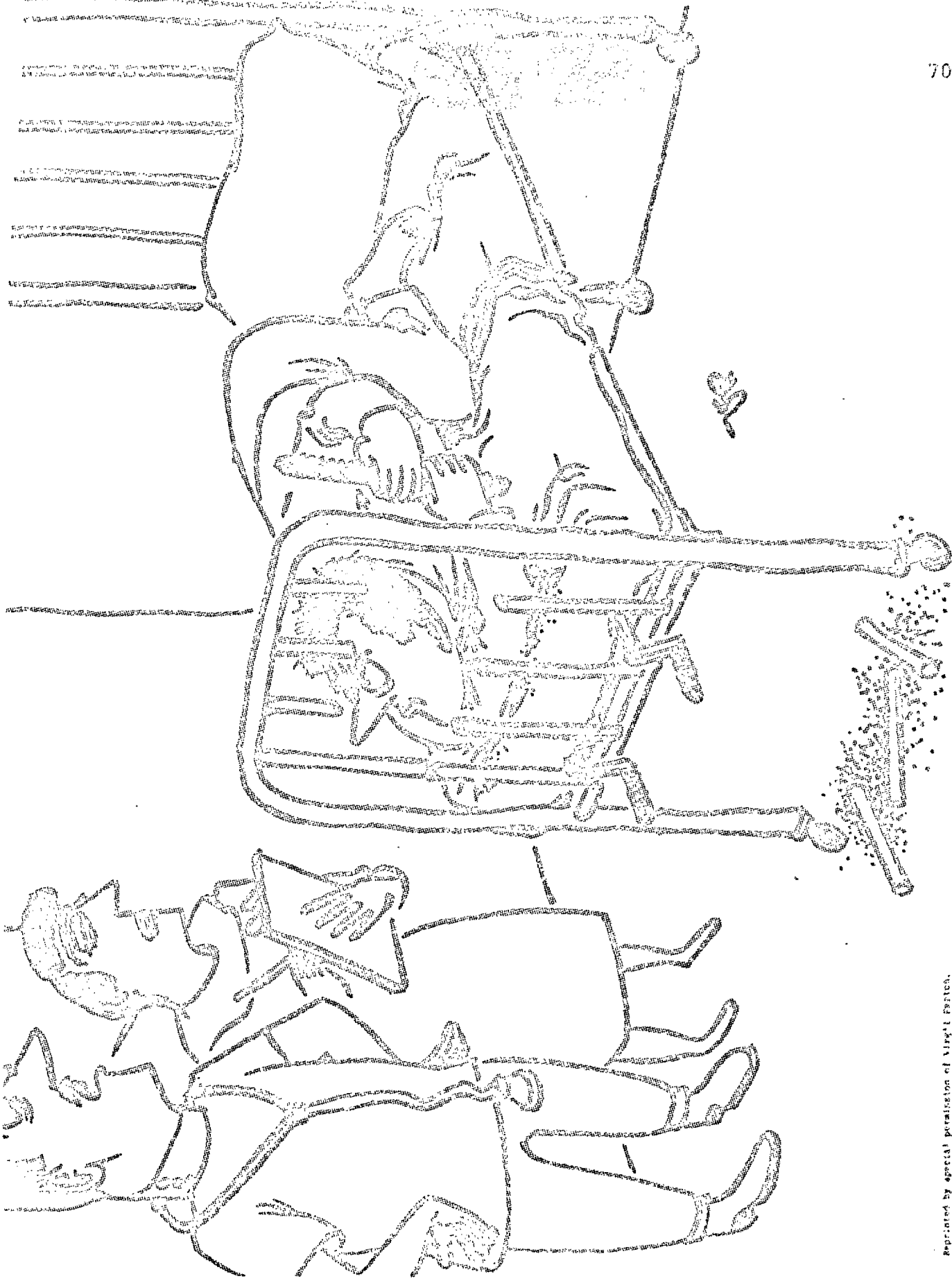


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"Welcome to the Brooklyn Riviera, Mrs. Finnigan!"



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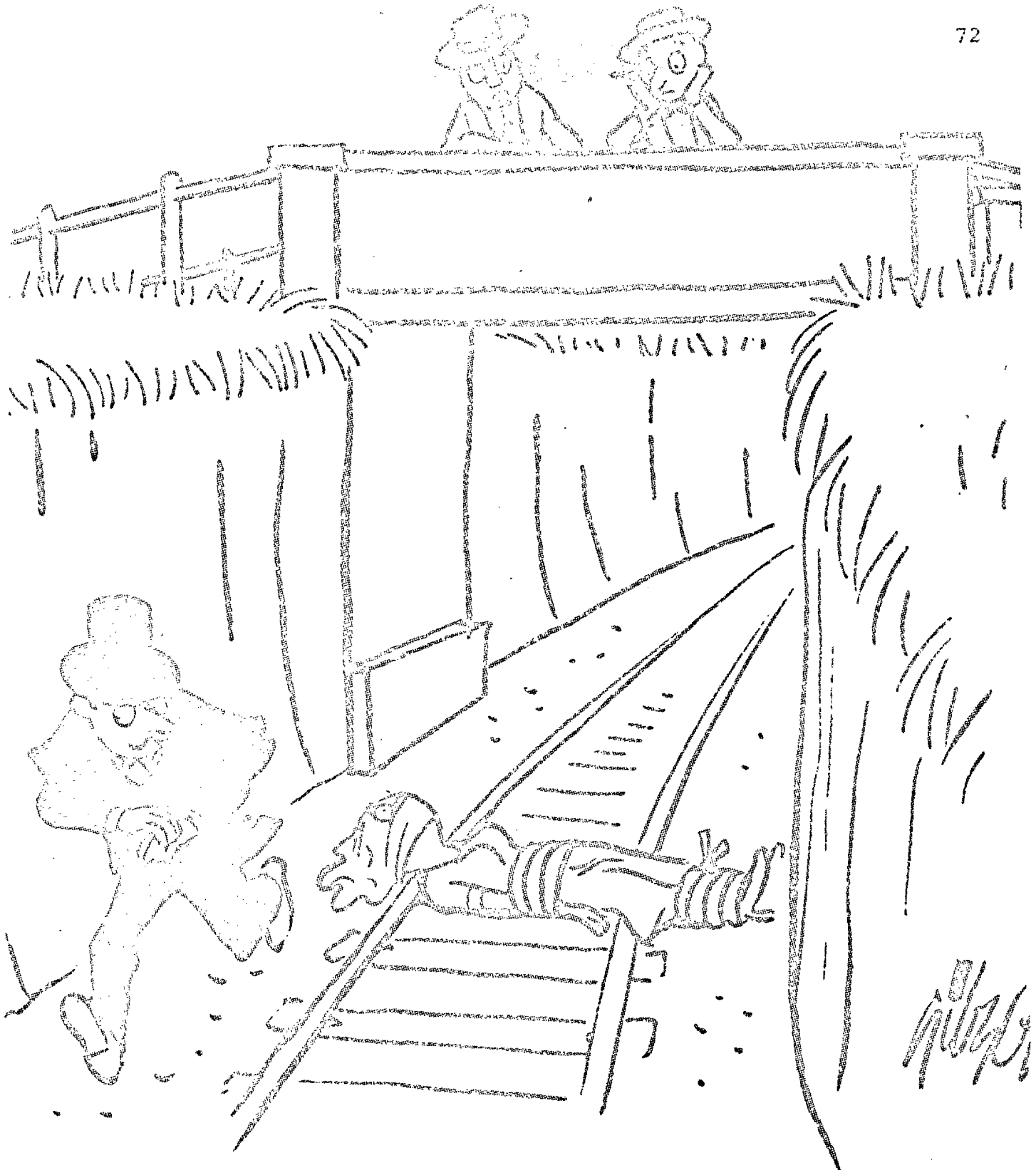


Reprinted by special permission of Virgil Fatica.

"Don't you want to stay till you're well, Mr. Scaggs?"



"You know something, Dad? We're both in love with the same woman"



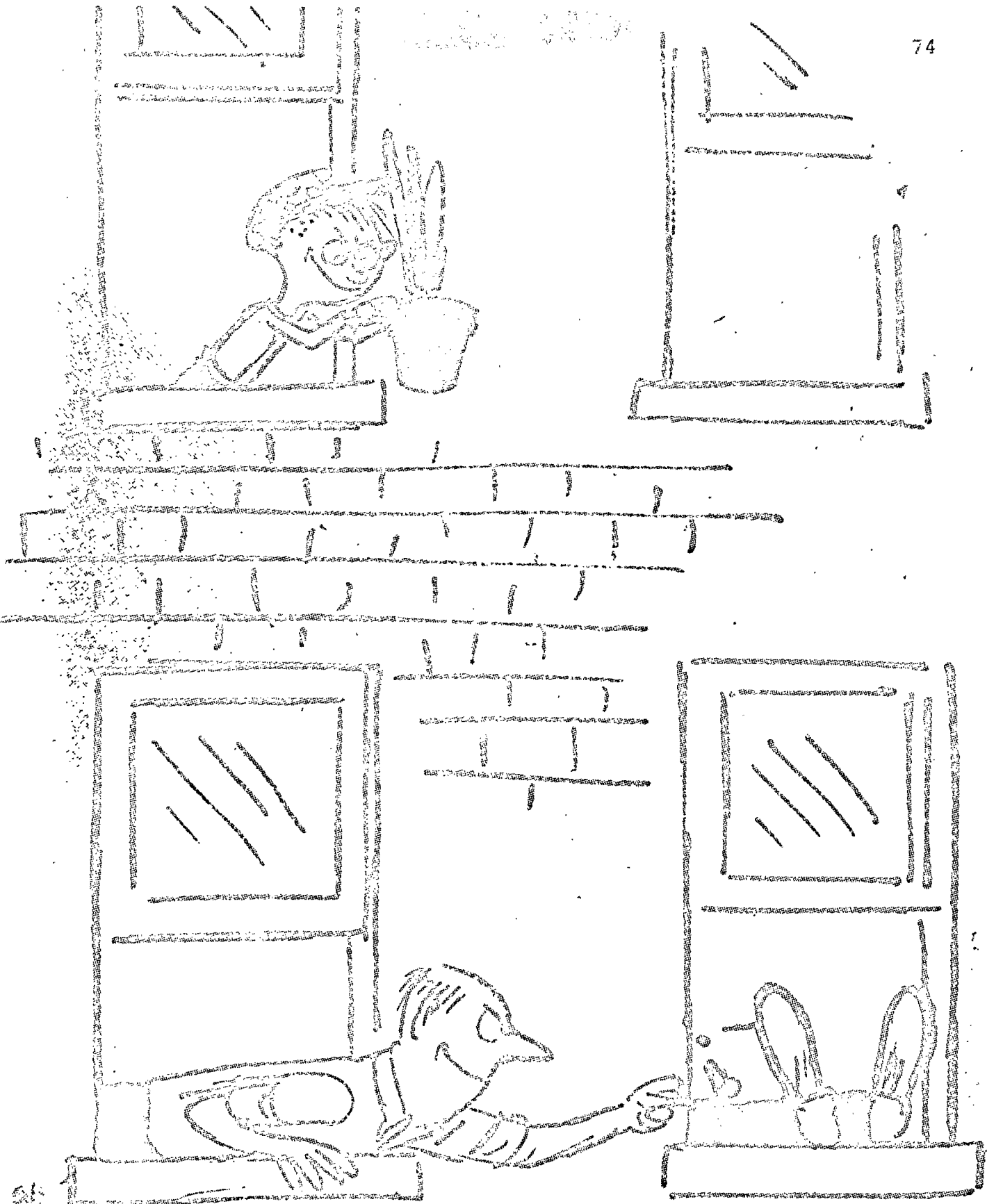
'Now there's something you don't see often these days!'

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Post. Copyright 1933 by the Curtis
and Co.



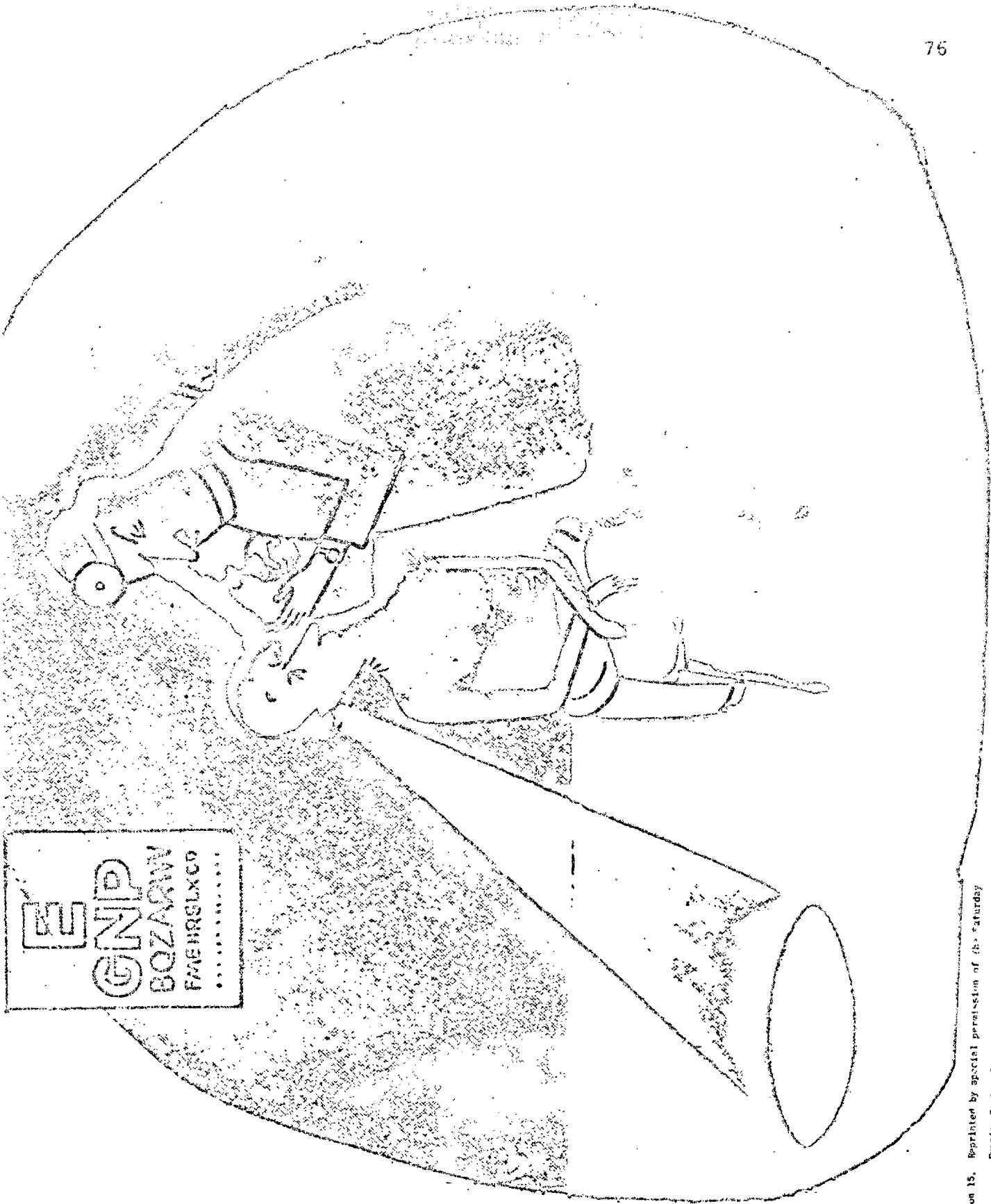
Cartoon 17. Reprinted by special permission of Frank Beasen.

“Does this mean we don’t get dessert?”



Cartoon 13, Reprinted from Argosy, copyrighted 1950 by Popular Publications, Inc.

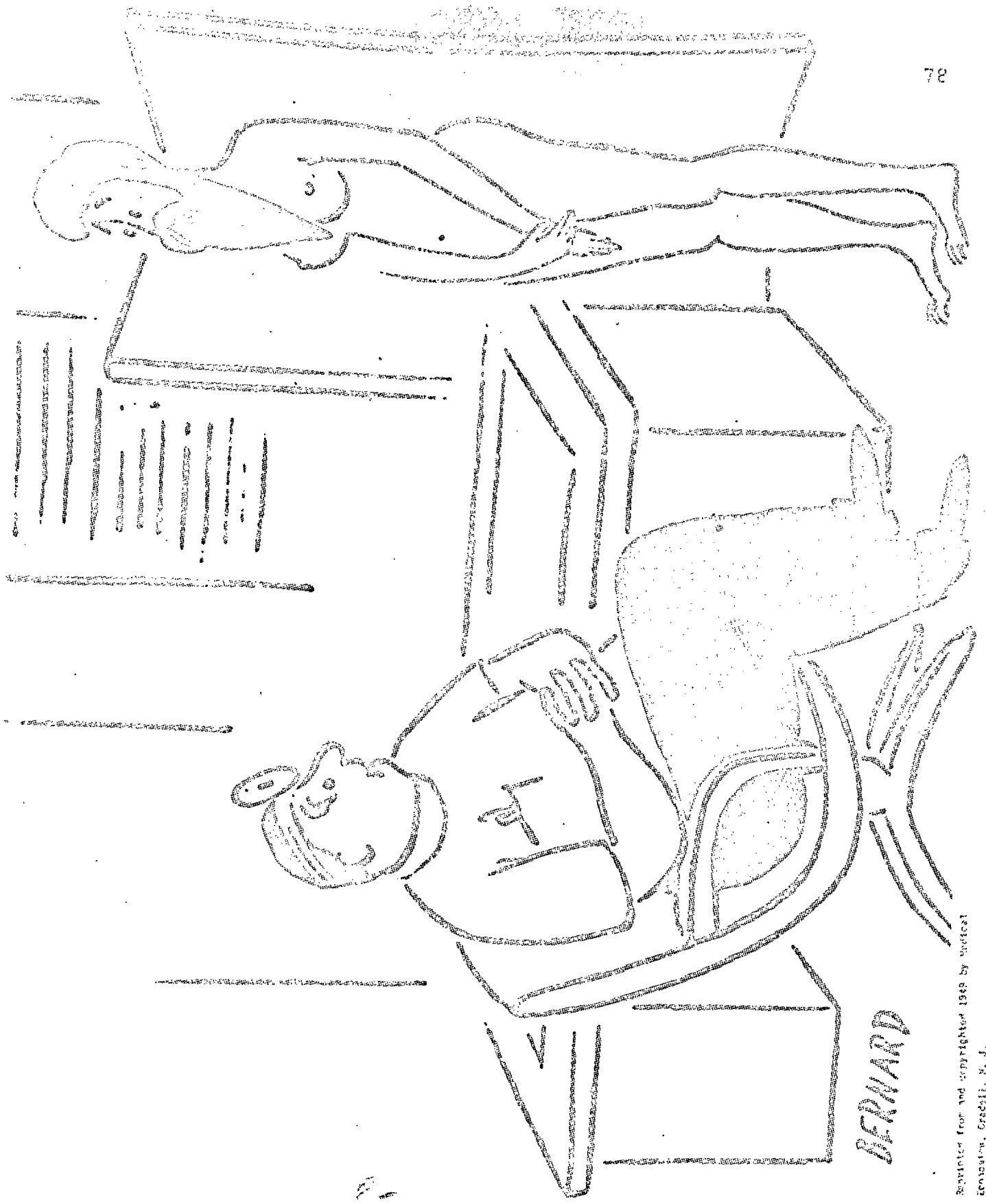




Cartoon 15. Reprinted by special permission of the Saturday Evening Post. Copyrighted 1931 by Gertie. (Mikheev 3).



16. Courtesy of True, the 90's Boozie.



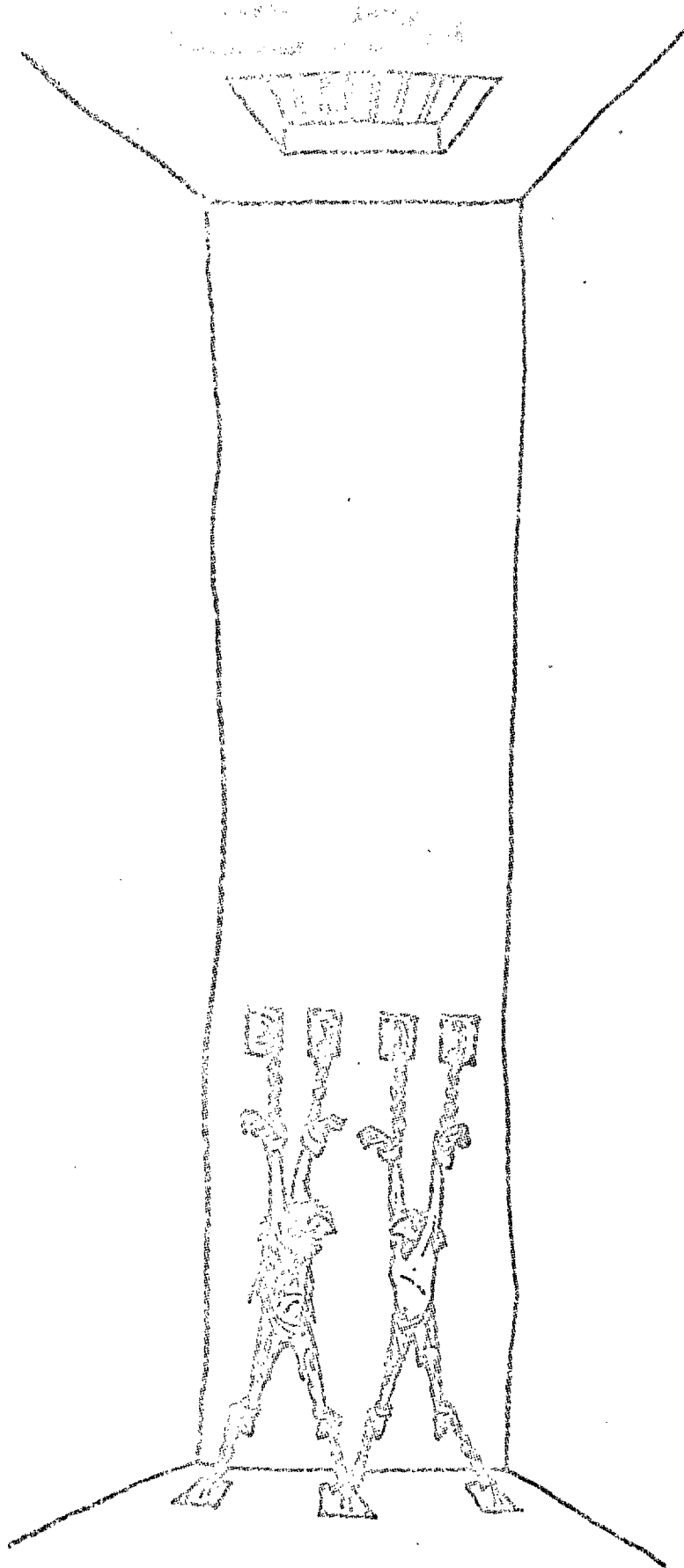
BERNARD

can't. Reprinted from and copyrighted 1989 by Universal
Education. Credit: M. J.

"Well, anyway, at least your parents in the video above."



"Can't you ever be serious, George?"



"Now, here's my plan . . ."



Reprinted from *Tommy*, May, 1948
Copyright by *Tommy*, Inc., 1948

"Why, Tommy—you're early!"

APPENDIX D

Rank these persons on the degree which you would like to be like them.

Write the number 1 in the box for the person you could most like to be like, the number 2 in the box for the one you could next most like to be like, and so on.

Write the number 13 in the box for the person you would least like to be like.

When you have finished, there should be thirteen different numbers on the page.

Person A. Here is the person who is best at getting along with other people.

Person B. Here is the person with the most pep and energy of any one.

Person C. Here is the person with the most outstanding traits of character (like honesty and trustworthiness.)

Person D. Here is the healthiest person.

Person E. Here is the person who is best able to look at things in a new way and to discover new ideas.

Person F. Here is the best looking person.

Person G. Here is the person who gets the highest score on an intelligence test.

Person H. Here is the most emotionally stable, that is, the one who is happy most of the time and doesn't get easily upset over little things.

Person I. Here is the person who knows best what he wants and works steadily toward getting it.

Person J. Here is the person who gets the highest marks in his subjects.

Person K. Here is the person with the widest range of interest.

Person L. Here is an outstanding athlete.

Person M. Here is the person with the best sense of humor.

	A
	B
	C
	D
	E
	F
	G
	H
	I
	J
	K
	L
	M

AC TEST OF CREATIVE ABILITY

(Revised Short Form A)

Please fill in: No. _____

Name _____

Age _____ Sex _____ Date _____

Occupation _____

used by AC Spark Plug Division - General Motors Corporation

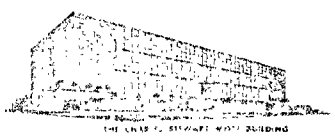
Directions:

In this booklet there are three parts of a test of creative ability. You will take the test one part at a time, beginning when the examiner gives the signal and stopping when the examiner says "Stop!" The length of time allowed for each part of the test is given at the top of the page where that part begins. Pace yourself so that you have enough time to try all of the problems in each part. Do not spend all of your time on one or two problems.

If you are writing when the signal to stop is given, you will be allowed time to complete the item on which you are working.

**DO NOT TURN THIS PAGE UNTIL
YOU GET THE SIGNAL.**

TMVP-731-R1
2-7-2006



PARTIAL -- 20 MINUTES

Below are listed five situations. Some of them are usual occurrences, others not so common. After each situation, indicate as many possible consequences as you can. You may supply any information or details that you wish. In other words, think of all the things that might happen as a result of the situation.

A. Two men, their arms loaded with packages, are approaching each other along two sides of a building. The sidewalk is icy, and it is certain that the men will bump into each other at the corner of the building.

- | | |
|----------|-----------|
| 1. _____ | 8. _____ |
| 2. _____ | 9. _____ |
| 3. _____ | 10. _____ |
| 4. _____ | 11. _____ |
| 5. _____ | 12. _____ |
| 6. _____ | 13. _____ |
| 7. _____ | 14. _____ |

B. In a large industrial plant, paychecks are issued on Friday. One Thursday, the addressograph machine which is normally used to address the paychecks breaks down. It becomes obvious that no checks can be issued on the regular pay day.

- | | |
|----------|-----------|
| 1. _____ | 8. _____ |
| 2. _____ | 9. _____ |
| 3. _____ | 10. _____ |
| 4. _____ | 11. _____ |
| 5. _____ | 12. _____ |
| 6. _____ | 13. _____ |
| 7. _____ | 14. _____ |

PART II -- 10 MINUTES

Below are listed five statements which you are to assume are true. Give as many reasons or explanations as you can to account for the truth of these statements.

A. Students who suffer from allergies (hay fever, asthma, etc.) generally rate five to ten percent higher in intelligence tests than non-allergic students.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

B. April is the month when the fewest accidents of any kind occur in the U. S.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

- C. Late at night a small fire breaks out in one of the closets of a man's house. Although the fire does not spread, all of his clothes are destroyed. It is certain that he cannot obtain any clothing until the next day.

1. _____	8. _____
2. _____	9. _____
3. _____	10. _____
4. _____	11. _____
5. _____	12. _____
6. _____	13. _____
7. _____	14. _____

- D. In a final assembly department normally employing sixteen women inspectors, only seven come to work on a given day. The job is sufficiently complex to make it impossible to obtain replacements for that day.

1. _____	8. _____
2. _____	9. _____
3. _____	10. _____
4. _____	11. _____
5. _____	12. _____
6. _____	13. _____
7. _____	14. _____

- E. At a large drawbridge over a navigation channel, two small boys have tampered with the electrical system which lowers traffic gates when the bridge is going to be raised. A ship is approaching the drawbridge; automobile traffic is heavy. It is apparent that the bridge tender will raise the bridge without realizing that the gates are out of order.

1. _____	8. _____
2. _____	9. _____
3. _____	10. _____
4. _____	11. _____
5. _____	12. _____
6. _____	13. _____
7. _____	14. _____

C. There is a significantly smaller percentage of fat men in jail than any other physical type.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

D. There is a larger percentage of suicides on very bright days than on gloomy or cloudy days.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

E. Great quantities of antlers are shed each year by members of the deer family, but few such antlers are ever found.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

PART III -- 15 MINUTES

Below are listed five common objects. List all the possible uses to which these objects might be put (both uses that you have seen and uses that you can imagine).

A. A rubber tire

- | | |
|----------|-----------|
| 1. _____ | 8. _____ |
| 2. _____ | 9. _____ |
| 3. _____ | 10. _____ |
| 4. _____ | 11. _____ |
| 5. _____ | 12. _____ |
| 6. _____ | 13. _____ |
| 7. _____ | 14. _____ |

B. A red brick

- | | |
|----------|-----------|
| 1. _____ | 8. _____ |
| 2. _____ | 9. _____ |
| 3. _____ | 10. _____ |
| 4. _____ | 11. _____ |
| 5. _____ | 12. _____ |
| 6. _____ | 13. _____ |
| 7. _____ | 14. _____ |

SCORE SHEET

AC TEST OF CREATIVE ABILITY
(Revised Short Form A)

Part	Raw Score	Standard Score
I		
II		
III		
T O T A L	Add Standard Scores for Parts I, II, & III	
		Standard Score

C. A wooden ruler

- | | |
|----------|-----------|
| 1. _____ | 8. _____ |
| 2. _____ | 9. _____ |
| 3. _____ | 10. _____ |
| 4. _____ | 11. _____ |
| 5. _____ | 12. _____ |
| 6. _____ | 13. _____ |
| 7. _____ | 14. _____ |

D. A hammer

- | | |
|----------|-----------|
| 1. _____ | 8. _____ |
| 2. _____ | 9. _____ |
| 3. _____ | 10. _____ |
| 4. _____ | 11. _____ |
| 5. _____ | 12. _____ |
| 6. _____ | 13. _____ |
| 7. _____ | 14. _____ |

E. A wire coat hanger

- | | |
|----------|-----------|
| 1. _____ | 8. _____ |
| 2. _____ | 9. _____ |
| 3. _____ | 10. _____ |
| 4. _____ | 11. _____ |
| 5. _____ | 12. _____ |
| 6. _____ | 13. _____ |
| 7. _____ | 14. _____ |

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