AN INVESTIGATION OF THE PSYCHOLOGICAL CORRELATES OF WEIGHT

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C O N T E N T S

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A B S T R A C T

The purpose of this study is to explore the relationship between weight and field dependence - independence, internal-external control and future time perspective, so that some recommendations could be given to improve weight reduction techniques. It is hypothesized that as weight increases field dependency would increase, external locus of control would increase and future time perspective would decrease. To measure the first two dimensions, already developed scales were used, namely Witkin's GEFT and Rotter's I - E Scale. To measure future time perspective on the other hand, the future section of the Time Questionnaire which is originally developed to measure the suicide potential of depressive patients was modified to measure the future projection of the obese. Senior students of two Technical High Schools for Girls were the subject group.

A regression analysis was calculated between weight index and field dependence - independence, internal - external locus of control and future time perspective. According to the results, no significant relationship was found between any of the variables.

These results confirm the other findings which suggest that behavioral characteristics of individuals are not determined by their weight levels contrary to Schachter's findings which indicate that obese individuals have certain kinds of behavioral characteristics, that is stimulus boundedr

I N T R O D U C T I O N

Obesity has been studied from the biological, social and psychological points of view and has been treated as either a medical, social or psychological disorder. Medically, it is to be a serious healh problem, and it affects morbidity and mortility rates. The death rate from a variety of diseases is found to be significantly higher among obese persons. They suffer mostly from cardiovascular diseases, and also adult onset diabetes and hypertension are highly correlated with obesity (Stunkard, 1975). These are the main medical complications which obesity is associated with.

From a social perspective, overeating may be considered as a behavior acquired through learning. Garn et al. (1976) and Hartz et al. (1976) pointed out that living together with an obese person is influencial in changing the eating habits of normal weight individuals (Garn et al., 1979). This suggests that those who come from an obese family are more likely to be obese and in turn to raise obese children. This would increase the incidence of obesity in society.

Psychologically, there is a high correlation between obesity and certain kinds of emotional disturbance. Those of the obese who have emotional problems have a disturbed body image and feel that their bodies are absurd, strange, disgusti and that others view them with contempt. This feeling leads to disturbed social functioning. Altough this does not imply that

all the obese have such feelings about their body, overweight individuals who have been obese since their childhood are more likely to develop such emotional disturbances.

Since obesity has proven to be a problem in many aspects the definition of obesity and attempts to understand and contro this disorder have occupied researchers as well as clinicians. Obesity generally defined as a condition characterized by excessive accumulation of fat in the body (Stunkard, 1975). Significant obesity is considered to be present when the observed weight is more than 20% above the ideal weight for the given height (Foreyt, 1977). Naturally, each individual is unique in terms of his bony structure, musculature and the distribution of fat. But, still the most widely used method of assessment of obesity is the application of height-weight tables. In these tables, weights are given for each year of age from 15 to 55 and up for each sex and for certain height levels. They were based on average weights of some 200,000 men and women of the specified ages and heights. These studies were done by life insurance companies but the precision of these tables is questionable because the measurements are taken with subjects wearing their street clothes including shoes (Mayer, 1968).

In recent years, obesity has become so threatening to people's health that many approaches to the treatment of obesit from traditional medical and pychotherapeutic treatments to different behavioral techniques have been suggested and applied. Though, it is generally agreed that behavioral techniques are more effective than any other, none of the treatments has yielded complete success (Foreyt, 1977); and investigators are still searching for a more promising

technique in treating obesity. It is observed that by means of this or the other technique, the obese can lose some weight but very fewww of them can maintain their desired weight. So, one of the main issues in the treatment of obesity is the maintainence of the reduced weight.

Since it is so difficult for obese people to maintain their weight loss, some research attention needs to be focused on this issue, namely what it is about the obese that makes it difficult for them to keep their weight loss.

One way of investigating why the obse fail to maintain weight loss is to see if some characteristics of their psychological functioning creates this problem. It is the purpose of this research to look for some clues to this problem in pychological peculiarities of obese individuals. For example, the obese have certain characteristics and eating behaviors of their own. Compared to their normal counterparts, they are more stimulus bound, that is they are more responsive to external cues (Schachter, 1974). Also, they are thought to be field dependent (Danielson, 1981; Greene, 1976; Karp and Pardes,1965 cited in Schachter, 1971); to have an external locus of control (Barrios et al., 1977; Geller et al., 1981; Garmanious and Locue, 1975; Held and Snow, 1972; Kessler, 1978 Rodin, 1981; Wampler et al., 1980), and they may have poor future time perspective.

In the present study, the aim is to compare obese and normal subjects on the dimensions of field dependence - independence, internal - external locus of control and future time perspective. It is expected that with the help of the results

obtained from this study, in terms of these three dimensions some recommendations can be presented in orden to improve available treatment methods.

First, a literature review of obesity will be presented. Under the heading of etiology of obesity genetic factors, socia views, developmental and psychological viewswill be discussed. Then, the treatment of obesity and various approaches to it will be described. Then, psychological characteristics of the obese, mainly stimulus boundedness, field dependence, internal external locus of control, and future time perspective concepts will be discussed in some detail. Finally, the rationale of the study and implications of the literature for hypotheses will be discussed and the hypotheses will be given.

REVIEW of the LITERATURE

Etiology of Obesity

The answer to the question of what causes obesity seems simple at first glance: more calories taken in than expended. But this statement leads to another question which makes the problem more complex. Why do some people take more calories than they are meant to spend and others don't? Obesity, then may be viewed as the "end product of a disturbance in energy balance, or the regulation of body weight"(Stunkard, 1975, p.770). This disturbance may be due to genetic, social, developmental or psychological factors. Also, lessened physical activities or brain damage may cause obesity. This leads to a common belief that obesity is of multifactorial etiology. In this section genetic, social, developmental and pychological

factors involved in the etiology of obesity will be discussed.

a) Genetic Approaches to Obesity There is a lot of evidence that fatness follows the family line. Davenport (1925) observed the family line similarities in obese subjects. Later, Angel (1949) interviewed a group of obese women who reported a great number of obese parents and siblings. Withers (1964) found similar results (all cited in Garn, Rabinow and Bailey, 1979). Garn and Clark (1976) looked at the correlation of obesity between children and their parents and found that if one of the parents is obese his or her children are generally obese. If both parents are obese, then the children become fatter and fatter through adolescence and at age 17, these children avarage 3 times as much overweight as teh children of the lean (Garn, Rabinow and Bailey,1979). However, the familial nature of fatness does not always confirm the genetic explanation of obesity. Findings by Garn et al. (1976) and Hartz et al. (1976) show that genetically unrelated individua living together come to resemble each other in fatness. It is also found that husbands and wives turn out be similar to eachother infatness yet are genetically unrelated pairs. Adopte children from agencies or orphanages,if they are adopted early become similar to adoptative parents and adoptive siblings in terms of fatness for reasons other than shared genes (Garn, Rabinow and Bailey, 1979). Fat people are even reported by Mason (1970) to have obese pets (Garn, Rabinow and Bailey, 1979). Therefore, genetic explanations of obesity do not seem to be very satisfactory and it is neccessary to consider the operation of other factors, too.

b) Social Views of Obesity Demographic factors such as age, sex, ard SES are also thought to play a role in the development of obesity (Silverstone, 1969; Stunkard, 1975). Women over 40 years of age, coming from lower SES are found to be most at risk in the community. This finding can be explained as follows with regard to age, most people tend to gain weight as they gr older due to a reduction of energy expenditure without a reduction of caloric intake. The higher prevalence of obesity among women has been reported because of high rate of mortility among men after age of fifty (Stunkard, 1975). When SES is taken into consideration, there are considerable social pressures acting on individuals in the upper SES which force them to take remedial action --that is to diet-- whereas such social pressures are probably much weaker among the lower social class, hence the increased prevalence of obesity in this group (Silverstone, 1969).

General living conditions in the world today may also be responsible for obesity. On the one hand, high calorie foods are easly obtainable and on the other, the daily pattern of life is so sedentary that very little physical activity is perfomed (Baird in Baird and Howard, 1969).

c) Developmental and Psychological Views of Obesity Along the developmental line, obesity may be caused by a variety of factors. " Developmental obesity " is described by Bruch (in Mayer, 1968) as a common form of obesity seen during childhoo She says that, in many obese children in whom obesity is not due to purely physiological factors, emotional development centers around eating. Usually such children grow up in a family setting in which they are used by one or the other parents (sometimes by both) as objects fulfilling their

needs and compensating for failure or frustration in their own lives. The child is overprotected and ovenfed, and as a result he develops the habit of overeating and eats whenever he is under stress.

From a psychoanalytic point of view, it is generally accepted that, " To be loved is to be fed " (Masserman, 1941 cited in Lehman, 1949, p.461). Consequently, the child may reject food as a reaction to rejection of the mother or he can use food as a vehicle to get attention. Parents' attentior can be attracted either by refusing food or by overeating, thus staying fat and refusing to follow a diet (Bruch, cited in Lehman, 1949). Overeating may also indicate a direct demand for love. To be fed is associated with being loved, being taken care of, being helped and being dependent as an infant (Alexander, 1941 cited in Lehman, 1949). Abraham (1927) and Alexander (1941) state that overeating may take the place of gratification for many needs. Therefore, those children who are not given sufficient love, seek comfort in the pleasure of eating when they are frustrated and unhappy (Lehman, 1949). They take food as the only source of satisfaction and as a means of coping with difficult and unpleasant situations (Bruch, 1940 cited in Lehman, 1949).

As a result of these factors in the development sequence, obesity may emerge as a pychological disturbance later in life. Disturbances such as general anxiety, lack of emotional satisfaction, an increased drive for oral satisfaction, a defense against depression, a true addiction to food, and sexual conflict situations are some of the psychological causes of obesity (Stunkard cited in Silverstone, 1969). On the other hand, being obese may cause psychological

problems. For example, many obese people have a disturbed body image, that is they see themselves as being absurd, strange and disgusting. Those in whom obesity begins earlier are much more likely to have considerable psychological problems. The more anxious the patients get, the more they eat. Such eating to decrease anxiety, then leads to guilt about overeating which in turn leads to more eating and thus forms a vicious cycle. These are the patients who develop the so called ' binge eating ' and ' night eating syndrome ' (Stunkard cited in Silverstone, 1969).

However, despite the above discussions, no significant difference was found between obese and non-obese subjects in overall psychiatric status in one study. Similar findings were obtained from the observations of Mc Cance (1961) and Shipman and Plesset (1963) who pointed out that patients attending obesity clinics do not differ psychologically from patients attending hospitals for other reasons (Baird and Howard, 1969).

The Treatment of Obesity

The treatment of obesity has been a widespread concern for the past 50 years. Since obesity is generally seen as a consequence of a positive balance of energy consumed over energy expended, weight reduction may be seen as a simple task. The treatment of obesity is accordingly derived from the notion that the amount of food eaten should be reduced with an increas in energy expenditure accompanying it. Most of the reduction techniques take this task as their goal, only their means are different.

In spite of the fact that weight reduction is a simple task, most obese persons fail to reduce. Stunkard states " most obese persons will not enter outpatient treatment, of those who do, most will not lose a significant amount of weight, and of those who do lose weight, most will regain it " (Stunkard, 1975, p.780). The comman belief is that obesity is a chronic condition and it is resistant to treatment. Still, there are many treatment techniques and investigators are trying to develop new ones. The different techniques that have been employed to treat obesity may be grouped into 4 categories: medical treatment, conventional psychotherapy, behavior therapy and group therapy.

a) Medical Treatments Medical treatments involve diet, fastin medication and exercises.

Dieting is one of the basic techniques in reducing weigh Various lists containing low calorie foods and the amount of food that is to be eaten in a given interval have been developed. The obese have a tendency to follow nowel and bizzare diets of which there are plenty in recent years. However, the monotony of following a diet and eating only a limited amount may cause the person to stop the diet. As a result, he would eat even more and return to his former weight.

On the other hand, it has been demonstrated that obese animals (Eichelman, 1971 and Sechzer et al., 1963 cited in Schachter, 1974) and obese humans (Schachter, 1974) are considerably more sensitive to pain and they are more active in pain avoidance than normals. This sensitivity to pain and the tendency to avoid it may be another reason why the obese

quit dieting. It would be harder for them to stand hunger pains and to stop themselves when foods are easily accessible.

Fasting is another technique which causes rapid weight loss. If their environments are adequate, many obese individual find fasting easy to tolerate. This may be explained by the external cue hypothesis (Schachter, 1971). This hypothesis states that, since their eating behaviors are determined by environmental factors rather than their physiological needs, that is hunger, it would be easy for them to fast if food is not easily accessible. After two or three days without food they can stand the hunger and this really seems to be a solutio However, follow-up studies of those who have undergone long ter fasts yielded that they regain the lost weight after the fastin is terminated (Stunkard, 1975).

In pharmacological treatment, amphetamines which function as appetite suppressants and central nervous system stimulants are widely used. Amphetamines and related compounds act chiefly by stimulating the ventromedial hypothalamic centers which direct satiety. Also, they stimulate the central nervous system. This stimulation causes spontaneous physical activity and perhaps some metabolic actions as well (Mayer, 1968). But drugs which are used as stimulants to the central nervous system may lead to restlessness, anxiety, insomnia and habituation (Baird and Howard, 1969). Later, an interest in using fenfluramine in the treatment of obesity has developed (Gaind, 1969; Munro et al., 1969 cited in Stunkard and Penick, 1972). It is a drug which is said to have none of the amphetamine effects mentioned above. Instead, it is supposed to mobilize fat from the cells. But no satisfactory study has demonstrated the superiority of fenfluramine over conventional

appetite suppressannts (Penick and Stunkard, 1972). If they are used together with a carefully planned diet, some usefulness can be seen but it is a limited usefulness because the initial dose loses itseffects in few weeks. Addiction to the drug is another porblem here also.

Since lessened physical activity is one of the causes of obesity, increased physical activity is usually suggested as a supportive technique along with a diet or any other technique. Some authorities have argued against physical activity in weight reduction programs, claiming that increased physical activity will lead to a compensatory, or more than compensatory increase in caloric intake, but this view has proved to be wrong. Increased physical activity should be a vital part of any weight reduction program. Obese persons are more adventageous than normals in this area. Since body weight caloric expenditure are propotional, overweight persons expend more calories thus burn more fat with the same amount of physical activity. But it would be easily expected that physic overactivity would cause suffering for the obese (Penick and Stunkard, 1972).

b) Conventional Psychotherapy Weight reduction diets and various forms of physical activity are so widespread and easy to get in magazines etc. that only those who fail to reduce on their own go to a physician, and only those who cannot utilize medical treatment go into psychotherapy (Stunkard, 1975). Since obese persons eat when they are under stress and frustrated, they can benefit from psychotherapy which provides them with more effective and less stressful lives. With the help of the psychotherapy, they may live more effectively and

therefore not overeat. But obese patients may have a tendenc to depend too much on the psychotherapist. As a consequence they may reduce during therapy but when it is terminated and if under stress again, they may soon start to oevreat again.

c) Behavior Therapy ' In recent years, behavioral techniques in controlling obesity have been very popular. Foreyt and Frohwirth (1977) have stated two reasons for the increasing interest in behavior therapy: First, studies on traditional medical and conventional psychotherapeutic techniques are inadequate methodologically, especially in subject sampling and follow-up and secondly, the treatment of obesity provide a good chance to test the theoretical and conceptual problem of behavior therapy and it is easy to apply. Also, there is large number of volunteer subjects.

Behavior therapy approaches can be grouped under two main headings : aversive techniques (classical conditioning and operant conditioning techniques (Foreyt and Frohwirth, 1

The logic underlying aversion therapy is that of pair an aversive unconditioned stimulus such as unpleasant scenes images, odors, chemical nauseants or electrical shock with a conditioned stimulus food. This way subjects are expected to avoid particular foods which would then cause the reduction of food intake therefore weight loss. By repeated pairing of the conditioned stimulus food and one of the unconditioned noxious stimuli it is hoped that the obese person would lear to certain foods. The overall results of aversive therapy do not seem to be promising. The best outcomes have been obtain only when it is used in combination with other methods but

there are no follow-up data to give information about maintenance after the treatment is terminated. Further, aversive therapy is often hard to administer and time consuming. It may be also painful and frightening to the subjects and unpleasant to the therapist (Frohwirth, 1977).

Operant conditioning, on the other hand is based on learning patterns which involve control over stimuli about eating. The main agent here is the obese person himself, self controlling and self monitoring are the methods used. Compared with other treatments, this one is the most promising techniqu At least initial weight loss has been observed. " But the most helpful techniques for the clinician to use when treating overweight clients seems to involve some combination of the following:

1. Self-control techniques for habit change (Ferster, Nurnberger and Levitt, 1962; Jeffrey, 1974; Mahoney,1974; Romanezyk et al., 1973; Stuart and Davis,1972).

2. Therapist reinforcement techniques (Jeffrey, Christensen and Pappas, 1973; Mann,1972).

3. Nutritional information (Mc Reynolds et al., 1976).

4. Regular exercise program (Stuart, 1975). " (Foreyt, 1977, p.3).

Self control techniques include self -monitoring of caloric intake, weight and activity proportions, self - initiated goal setting and environmental planning. Here, the individual is the center of the process. There are two groups of self control techniques. In thi first one, the individual learns specific behaviors that are preraquisites for the

learning of the target behaviors. These are a) self - monitoring of eating, physical activity and body weight b) self - initiated goal setting for eating, exercising and weight loss and c) self - initiated environmental planning in which the individual rearranges the environmental situations that lead to high food consumption or low energy expenditure.

In the second group of self control techniques the individual engages in self - initiated control to be used as a consequence of the behavior. These techniques include a) self - reinforcement for food and exercise management b) self punishment for the lack of weight management c) self - initiated environmental reinforcement in which subjects have people such as friends, family members available in the environment to reinforce them for their weight management efforts (Jeffrey, 1977).

The self control model was first proposed by Ferster et al. (1962). The most important contribution of this model is its emphasis on stimulus control. In light of Schachter's research that the obese are more responsive to external stimuli than normals, this study on stimulus control has great importance. Ferster and his associates indicated that self control is a very complex reportoire of behaviors which cannot be developed at once but in slow steps over a long period of time. Later, in 1967 Stuart adapted Ferster et al.'s stimulus cnotrol procedure and he obtained encouraging results. Stuart's model refers to stimulus control rather than self control and his treatment requires the individual to initiate behaviors which will change his environment, thus modifying his eating. But in general, his model can also be considered a self control technique.

Therapist reinforcement techniques also involve the use

of operant reinforcement or punishment procedures but under cnotrol of a therapist and the majority of them are carried out in institutions. Rapid, impressive, sometimes dramatic w loss with institutionalized patients during a treatment peri has been demonstrated with this technique (Aylonn,1963; Ber 1968 cited in Foreyt, 1977). Whether these institutionalize patients maintain their lost weight after they leave the institution cannot be known because almost no follow-up data were reported.

Mc Reynolds et al. (1976) trained nutritionists in self management techniques and found that a minimum of train- ing and continued supervision, nutritionists could successfu implement several types of self control programs (Jeffrey, 1977).

Along with the success of behavior therapy techniques there are still some defiencies. Beside others, one of the most important deficiency is teh lack of adequate follow-up. It is true that short term effectiveness is proven but in order to get lasting results, at least 6 months or one year follow-ups are needed (Foreyt, 1977).

d) Group Therapy of Obesity One study showed that patients treated in groups lost more weight those treated individuall (London and Schreiber, 1966 cited in Stunkard, 1975). Along with medication, half of the subjects were placed in supportive group therapy and the other half were not. At the end, those who attended group meetings lost significantly mo weight than those who were treated individually. On the othe hand, some studies demonstrated that behavior modification was more effective than a wide variety of alternative treatn

in weight reduction (Stunkard, 1972 cited in Stunkard, 1975

If group treatment is superior to individual treatment and behavior modification is superior to conventional therapy then behavior therapy in groups sounds the most superior. Thi superiority has been indicated by some investigators (Harris 1969; Penick et al.,1972 cited in Penick and Stunkard, 1972)

In the United States, group methods are widely applied by nonmedical groups two of which are TOPS (Take Off Pounds Sensibly) and Weight Watchers (Stunkard et al., 1970 cited in Stunkard,1975). TOPS , which is a self - help group has over 350,000 members and 150,000 centers all over the country Though this program suffers from a high rate of drop - outs, those who remain may lose encouraging amounts of weight. The other one, Weight Watchers is a commercial organization and has over two million members. This program also gets some satisfactory outcomes.

Though promising outcomes of group therapy and behavio therapy were suggested, it is seen that none of the technique are hundred per cent successful. Stunkard has put the problem into words as follows: " The poor results of weight efforts due not to a failure to implement any therapy of known effect iveness but to the fact that no simple or generally effective treatment exists " (Stunkard, 1975, p. 783). He also says, " the main hope for control of obesity lies in a better understanding of the factor that regulate body weight " (Stunkard, 1975, p.783). And researhers continue to investi gate more effective techniques.

Psychological Characteristics of the Obese

a) Stimulus Boundedness It is generally agreed that eating behavior, that is what we eat, how much we eat and when we eat are controlled to a large extent by psychological factors. But researhers have found that by producing lesions in certain parts of the brain, the eating behavior of the organism can be changed. Hunger and satiety are known to be controlled by two centers in the hypothalamus. The one which mediates hunger is located in the lateral hypothalamus whereas the satiety center is in the ventromedial nucleus. There is a direct relation between the feeding and satiety systems. By means of inhibitor fibres which run from the ventromedial to the lateral hypothalamus, the satiety center inhibits the hunger center.

Hetherington and Ranson first reported in 1939 that lesionsof the ventromedial hypothalamus (VMH) of the rat produced obesity. Brobeck et al. reported in 1943 that the obesity resulting fromsuch lesions was the consequence of gros eating. Later, Miller et al. devised a series of experiments to test whether this overeating was due to hunger motivation or not. They compared VMH lesioned and normal animals by a) making food difficult to obtain by requiring the animals to press a lever for food and requiring them to lift a heavy food cup cover. b) making eating unpleasant by adding quinine to food and requiring animals to cross a electrified grid to obtain food and c) making them fast for 48 hours and then observing the amount consumed at the end. Results failed to support the hunger motivation hypothesis. VMH lesioned animals worked less hard to obtain food than controls and they consumed less food both when they were given quinined food and when in food deprivation. In the light of this

evidence, the obese animals were said to be unresponsive to their physiological needs but hypersensitive to external cues, for example food - related cues such as taste (Nisbett, 1972).

Unresponsiveness to their internal state and hypersensitivity to food - related cues are also charecteristics of obese humans. Stanley Schacter starting from 1967, later together with Nisbett have done a large number of experiments with college students. They point out the specific aspect of obesity which discriminates between obese and nonobese people regarding the extent to which they refer to eating by external food related cues or by internal physiological cues or motivation. They have shown that the actual food consumption of the obese individual is relatively unrelated to his internal state that is his physiological needs. As a result of their findings, Schacter developed the notion of " stimulus - boundedness " which refers to eating in existence of external food - relevant cue, presumably any food cue but being less likely to try to eat or to complain hunger when such cue is absence (Schachter and Rodin, 1974).

The hypothesis stating that the obese are more responsive to salient external cues in their eating pattern is supported by considerable studies. Rodin and Slochower (1974) found that among adolescent normal weight girls in a food - rich summer camp, the more stimulus bounded girls gained more weight. So, they hypothesized that externality in general, leads to overeating and obesity. In another study by Schachter and Friedman (1974), obese and normal subjects were given either shelled or unshelled nuts. They concluded that obese subjects ate significantly fewer

nuts if they were shelled, whereas normals were unaffected by this special feature of the external stimulus. It was also shown by Nisbett (1968) that the obese are affected more by a difference in taste than the normals, that is if there is an unfavorable change in taste, the obese eat considerably less compared to the normals under same condition In one of his other surveys, Nisbett (1968) found that many obese young males recognized the tendency in themselves to ' clean the plate ' whereas the nonobese did not show such a tendency (in Baird and Howard, 1969). One more supporting finding by Schachter et al. (1968) demonstrated that after a certain period of deprivation, normals ate more than the obese (in Schachter, 1971). Being recently fed or not did not affect the amount the obese ate after deprivation as it affected normals.

As a result of these series of experiments, parallel patterns of eating behavior between obese animals and humans were found. Schachter listed the commonalities between lesion animals and obese humans as follows:

1. The obese eat on the average slightly, not hugely, more than normals.
2. The obese eat more good tasting and less bad tasting food than normals.
3. The obese eat fewer meals and more per meal than normals.
4. The obese eat more rapidly.
5. The obese are less active than normals.
6. The obese are more emotional than normals.
7. The obese do better at pain avoidence.

8. When obtaining food requires no particular effort, the obese eat more but they eat less when it requires work (Schachter and Rodin, 1974).

Besides Schachter's studies, there are others which are against stimulus boundedness characteristics of the obese which claim that there is no difference between the eating styles of obese and normal individuals. They criticize Schachter's results for not being obtained in a natural environment.

One of these studies found a remarkable similarity between the food choices by obese and nonobese individuals. Changes in the accessibility of food afeccted persons of all weight categories equally (Meyers et al., 1980). In another study, eating styles of obese and nonobese women were again found to be similar. It is reported in this paper, " In recent years, there have been ten studies that directly measured the eating behavior of obese and nonobese adults. Three studies found a difference, six did not, one may explain why this conflict has arisen. " This latter study by Dodd el al. reported that a randomly selected group of obese women in a fast food shop ate more rapidly than did the nonobese. When the women were matched on the characteristics of their food however, this difference disappeared. When they ate the same food as obese women, the nonobese women increased their intake to that of obese women (Stunkard et al., 1980). In this paper, it has been stated that obese people might eat more rapidly than nonobese people, chew their food less thoroughly, or differ in a number of other eating habits, yet these differences could result as much from the type of food selected (for

example soft food requires less chewing) as from the style in which that food is eaten. Stunkard et al. matched the food in size and character, and only small and inconsistent differences between obese and normal-weight women were found.

Though criticizing views have also been reported, these findings in general support the idea that the obese are more reactive to external stimuli rather than internal drive, that is they are more stimulus bound.

b) Field Dependence - Independence In addition to eating patterns, other behaviors of the obese are also apperantly determined by environmental and external factors. One of the aspects of the obese is their being field dependent.

Generalizing from their experiments on a wide range of personality characteristics, Witkin and his colleaques have identified a dimension which they called field dependence independence (1976). The field dependency concept refers to the extent to which the individual is influenced by the perceptual, interpersonal, social or environmental context in his decisions, perceptions, and actions. The field dependen individual is one who has difficulty freeing himself from the demands of the context, cannot approach a situation analytically, but acts on the basis of a global or undifferen iated perception of the situation. The field independent individual does the opposite and can function autonomously from his context. Small group interaction studies have shown that those who are field dependent are more likely than field independent individuals to be affected by others' views and to make use of information provided by others in arriving at a decision (Birmingham, 1974; Linton, 1955; oltman et al.,

1975; Paeth, 1973; Rosner, 1957; Shulman, 1975; Solar et al., 1969 cited in Witkin and Goodenough, 1976). Field independent people rely on internal referents in interpersonal behaviors. Also, compared to field dependent subjects they have more autonomy, show more initiative and take more responsibility (Witkin and Goodenough, 1976). Relying on internal referents requires acting on the field on his own or in other words going beyond the information given. It means breaking up an organized field so that its parts may be perceived as separate forms differentiated from the background. Since such processes require changing the field rather than accepting it as it is, restructering is necessary. To be able to perceive the parts of the whole as discrete items, one needs to reorganize the field, that is to structure it again. On the other hand, when one cannot use inner referents and cannot perceive parts as separate items, the field is likely to be experienced as it is. Field dependent people are more likely to rely on external information rather than internal referents and are not likely to attempt restructuring (Witkin and Goodenough, 1976).

Field dependent and field independent individuals also differ in social behaviors such as being responsive to external cues, prefering to be physically close, being interested in people. Field dependent people are more attentive to social sources of information than field independent people (Kendon and Cook, 1969; Konstadt and Forman, 1965; Meskin and Singer, 1974; Ruble and Nakamura, 1972, cited in Witkin and Goodenough, 1976). It has also been found that field dependent people are better at remembering the faces of persons they met before (Crutchfield, et al. cited in Witkin and Goodenough, 1976). They also prefer to be physically closer to those with whom

thel interact than field independent people (Holley, 1972; Justice, 1969 cited in Witkin and Goodenough, 1976). Preferin to be physically close to people, field dependent individuals are naturally interested in people, they like to help others, to be with others. They know many people and are known by man people. Field independent individuals, on the other hand pref solitary activities. They are interested in ideas and princip rather than people (Bell, 1955; Elliot,1961; Pemberton,1952 cited in Witkin and Goodenough, 1976).

Several studies have been done exploring whether there are differences in the field dependency level of obese and normal persons and contradictory outcomes have been obtained by different investigators. Karp and Pardes (1965) made an experiment and as a result they concluded that the obese are relatively more field dependent. But Schachter states that th experiments conducted with his classic Columbia University undergraduates did not replicate these findings. In two other studies by Kliner and Kay; and Maher, Mayhew and Zellner, (all cited in Schachter, 1971) contradictory results were obtained. In the former, normals were found to be more field dependent than the obese, and in the latter, the difference is in the direction of greater field dependence in the obese group. But in both studies, the differences were not statisti ally significant (Schachter, 1971). Still, there are other studies supporting the notion that the obese would show more signs of field dependence than normal weight persons (Ryden and Danielson, 1981; Greene, 1976).

c) Internal - External Locus of Control Another concept somewhat similar to field dependence is internal - external

locus of control of reinforcement. It is also a personality variable which refers to, to what extent an individual thinks his behaviors are a consequence of internal or external reinforcement.

The term was first introduced by J.B. Rotter (1966). In his social learning theory, he hypothesized that reinforcement following a behavior acts to strengthen an expectancy that this particular event will be followed by that reinforcement in the future. This process depends upon whether or not the person perceives a causal relationship between his own behavior and the reward. A perception of causal relationship can vary in degree. When a person perceives the reinforcement following his own behavior or his own characteristics, then he is said to be internally controlled. When a person perceive the reinforcement as not being dependent on his action but as a result of luck, fate, chance, under the control of powerful others or unpredictable because of great complexity of the forces around him, then he is said to be externally controlle (Rotter, 1966).

Since they are hypersensitive to external cues, the obese are expected to be externally conrolled, that is they are expected to have an external locus of control. The intern external distinction is one of the most widely investigated frameworks used to explain differences between normal and overweight persons. There are many studies which failed to find any significant difference in I-E scores between normal and obese subjects (Barrios et al., 1977; Geller et al., 1981; Garmanious and Lowe, 1975; Held and Snow, 1972; Kessler 1978; Rodin, 1981; Wampler et al., 1980).

However, findings by other researhers show that overweight and normal weight individuals do not differ on the internal - external dimension but among overweight persons, those who who are internally controlled achieve significantly more weight loss than those who are externally controlled (Balch and Ross,1975; Chavez and Michaels, 1980; Cohen and Alpert, 1978; Kincey, 1981). They suggest that locus of control should be considered in the selection of applicants for self - control weight reduction therapy.

d) Future Time Perspective In their special behavior reportoire, obese individuals are also expected to have some problems with their time concept. Because they are affected by external stimuli, time is an excellent outside cue to either trigger an obese individual to eat or postpone his meal time. Schachter and Grass have constructed an experiment in which they manipulated time by the help of doctored clocks which showed the time as being earlier or later than the actual time. Obese subjects were observed to eat according to the manipulated time whereas normals did not seem to be affected by it but ate according to their physiological and internal needs (Schachter, 1971).

The concept of future time perspective was first introduced by Yufit (Yufit and Benzies, 1979). He has developed a time questionnaire which is a semi - projective personality assessment technique. Actually, the questionnaire was developed to assess the suicide potential of depressed patients. Depressed patients seem to have difficulty with their future projections and suicidal patients frequently refused or were unable to perform the test (Yufit and Benzies 1979). In reviewing the literature, it appears that no

studies have been done with overweight subjects using future time perspective assessments. However in light of the claims that they are responsive to external cues and immediate stimuli, may be field dependent and have difficulty with the time concept in general they may also be expected to have poor future time perspective; that, it may be expected that they would have a difficult time planning their future positions, and would not be able to plan a long term, clearly proposed future for themselves.

The Implication of the Literature and the Rationale of the Study

In light of the literature reviewed, the resemblance between stimulus boundedness and the concepts of field dependence and internal - external locus of control is easily observed. In the theoretical framework, the most specific aspect of the obese is their being environmentally or externally motivated both in eating behaviors and various other behaviors and attitides.

In the present study, the relationship between weight and externality will be observed. Being stimulus bound, obese people are anticipated to be passive and dependent in relation to their environment. They will tend to rely on external information rather than their internal referents, (to be field dependent). Since overweight individuals are expected to respond more to external cues and environmental stimuli, they are also anticipated to have an external locus of control, meaning that they are not able to control themsel on their own initiative, and would perceive the reinforcement following their own behaviors as not being dependent on their

action but because of chance, luck and fate, (having external locus of control).

Beside the personality characteristics of being field dependent and externally controlled, overweight people are also expected to exhibit poor future time perspective. Referring to the externality hypothesis, the obese were found to have difficulty with time concept. The obese tend to eat according to the manipulated time rather than their internal needs. On the other hand, obese people are found to have low self - esteem, high self - dissatisfaction, high anxiety and frustration (Chwast, 1978; Hudson and Williams, 1981). Given these these somewhat depressive symptoms, the overweight are anticipated not to be able to plan a long term and clearly thought - out future. Also being responsive to immediate stimuli, the obese would not be able to plan their lives in terms of future consequences.

Within this rationale, this study aims to compare overweight and normal individuals in terms of these three dimensions. In other words, it will be tested whether field dependency, externality, future time perspective levels change with the change in weight. With the help of the results some recommendations will be reported to improve the already available weight reduction methods.

On the basis of above discussions, following hypotheses will be tested in this study.

Hypotheses:

1. Field dependency will vary positively with weight.

2. External control will vary positively with weight.

3. Future time perspective will vary negatively with weight.

M E T H O D

Subjects

This study was carried out on senior students of two technical high schools, Kadıköy Kız Meslek Lisesi and Nişantaşı Rüştü Uzel Kız Meslek Lisesi. 133 female students participated. They were students of five different departments, Giyim (Sewing), Konfeksiyon (Ready Made Clothing), Nakış (Embroidery), El Sanatları (Handicrafts), Ev Yönetimi ve Beslenme (Home Economics and Nutrition), Resim (Drawing) and Çocuk Gelişimi (Child Development). As a subject group the Technical High Schools for Girls were selected because in contrast to their normal high school conterparts, they were thought to have various future plans, such as working in the clothing industry other than going to the university only. This fact would affect their F.T.P. scores

Measurement Instruments

Three types of scales were utilized in this study. The group Embedded Figures Test was used to measure field dependence - independence, the Internal - External Scale was used to measure locus of and the future section of the Time Questionnaire was used to measure future time perspective.

1. The Field Dependence - Independence Measure

The instruments which are used measure field dependence -

independence are perceptual. Of those, the body - adjustment test (BAT) and the rod -and - frame test (RFT) were first used by Witkin in the experiments on the perception of the upright (Witkin et al., 1971). The embedded figures test (EFT), on the other hand, was first used in experiments on separating an item from a more complex organized field (Witkin et al., 1971). Though some other tests have also been developed to assess field dependence - independence, the rod - and - frame test and the embedded figures test have been accepted as the main tools (Witkin et al., 1971).

The EFT was developed by Witkin and his associates (1971) was modified from the figures used in the perceptual experiments of Gestalt Psychology. The test is composed of single geometric figures and complex designs which are so patterned that the simple figures are effectively hidden in them by means of the combination of colors and lines. The subject is required to find the simple figure embedded in the complex design.

After various studies on reliability and validity, Witkin and his associates developed two sets of 12 complex and 8 simple figures. The EFT is a timed test. For each figure a maximum 3 minute interval is given and those who can complete the task correctly in the shortest time are rated as field independent (Witkin et al., 1971).

The embedded figures test was developed mostly for adults, but there is a modified form for children between 5 and 12 years of ages (Children's Embedded Figures Test) (Witkin et al., 1971).

Witkin, Raskin and Ottman have also redesigned the EFT so that it can be administered to a group of subjects at the

same time. This is the Group Embedded Figures Test (GEFT) (Witkin et al., 1971) which contains 18 complex figures, 17 of which were taken from the EFT, and 8 simple figures, all in black and white. The function served by colors in the EFT is served by light shading of similar sections in the GEFT. The GEFT is given in the form of a booklet, with the simple forms printed on the back cover and the complex figures on the inner pages. Thus the subject is prevented from seeing simple forms and complex designs simultaneously, although she / he can look at the simple forms as many times as she / he wishes.

The GEFT, which has been developed after various reliabili and validity studies contains three sections: the First Section contains 7 very simple items and is mainly for practice. Each of the Second and Third Sections contains 9 more difficult items. The Second and Third Sections are matched for item difficulty, discriminative indicies and the frequency with which the different simple forms are used in the complex figures. The test score is the total number of simple figures correctly found in the complex designs.

The reliability of the GEFT was reported by Witkin et al. (1971) according to the Spearman - Brown formula as .82. For a validity measure, it was correlated with other field dependence - independence tests, and validity coefficients varying from .30 to .82 were obtained (Witkin et al.,1971).

Since the application of the GEFT requires a literate subject population, it cannot be used in many cross - cultural studies (Park and Gallimore, 1975 in Fişek, 1979). But, because it is easy to administer, it is one of the widely preffered tests in the West. The GEFT has been translated into Turkish and used in previous research in Turkey (Fişek, 1979)

The GEFT has been used in this research because of the ease of administration to a large group of subjects.

2. The Measure of Locus of Control

The attempt to measure individual differences in a generalized expentancy for locus of control a psychological variable was that by Phares (1957), who used a Likert - type scale with 13 external attitude and 13 internal attitude items. This attempt was followed by other studies which led to the revision of the scale. Finally, Rotter developed the Internal - External (IE) Scale which contained 29 forced - choice items, 23 of which are related to the internal - external dimension and 6 of which are filler items, used to make the purpose of the test more ambigous. Each item consists of a pair of alternatives. Subjects were required to select the one statement of each pair with which they agree more strongly. The number of external items selected is the score of the test.

To measure the reliability of the scale, the test - retest technique was used for 1 - month and 2 - month periods. Relatively higher coefficients varying from .60 to .83 were obtained from the 1 - month period compared with the 2 - month period whose coefficients varied from .49 to .61 (Rotter, 1966). For a validity measure, on the other hand, it was correlated with the Marlowe - Crowne Social Desirability Scale in a number of college student samples and correlations rangin between - .35 and - .40 were obtained (Rotter, 1966).

9 of the 29 items have been previously translated and used by a Turkish researcher (Kağıtçıbaşı, 1972).

3. The Future Time Perspective Measure

The future section of the Time Questionnaire (TQ) (Yufit, 1979) was used to assess the subjects' future time perspective. Actually, the TQ was developed to assess the suicide potential of depressed patiens. It is a semi-projective personality assessment technique which quantitatively assesses suicide potential.

While working with psychiatric patients, Yufit (1979) first developed an autobiographical technique as a diagnostic test. This technique was expended into a " Future Autobiography The " Future Autobiography " technique was then modified into a questionnaire called " Ideal Future " on which subjects were required to select a future year and then answer questions about their status and activities in that future year. This was the basis of the TQ which was developed later by adding " Present " and " Past " sections and changing the " Ideal Future " to " Future ".

The TQ is composed of three types of items: multiple - choice items, open ended questions and rating scales. Some items can be objectively scored while others cannot. The TQ is divided into three sections: Present, Future and Past; each section is scored separately. The TQ score is the sum of the scores of the three sections. Additional scores may be computed for the full questionnaire: an " O " (omission) score, an " F " (faking) score, a " B " (bizarre) score and a " U " (unscorable) score.

The future section of the TQ was translated and used in this study from a somewhat different scoring system was develo from the original by Yufit.

There are 17 items in the Future section of the original questionnaire one of which was omitted in the translated version because it was unrealistic for Turkish society. Subjects were required to select a future year and answer the questions on the scale accordingly.

Since the questionnaire is semi - projective and there are no scoring norms for it in Turkey, let aldng any norms for its present use, certain scoring criteria were developed based on a conception of future time perspective as it may apply to these subjects.

For all questions, the presence of an answer was taken as the main criterion. That is if a question had a specefic answer it received a score of +1 . Unanswered questions were scored -1, since the lack of an answer was assumed to indicate that the subject had no future projection for that question.

Besides, the presence of an answer, the scale was scored in terms of four primary variables as it was in the original questionnaire: a) the extent of future projection, b) the degree and specificity of elaboration, c) the consistency of elaboration, d) the amount of realistic change projected in the future as compared with the person's present status.

Accordingly, the first question, for example, asks the person to select a year in the future; only a projection of 5 or more years was given a positive score, with a maximum score of +4 for a projection of 10 years or more.

For open ended questions, the amount of detail and elaboration were taken as criterion. The more detail the subject gives, the more planned and organized future she is

assumed to have in her mind, therefore that answer is given higher score.

Subjects were also rated on their consistency, both between the answers given to different questions and between their projected and present status. Also, these projected future situations were to be realistic taking into account the subjects' present situations. Inconsistent and unrealistic answers were scored 0.

For multiple choice and rating items, disregarding the content of the items, the presence of an answer was weighted positively which showed that subjects thought about their future and had a perspective about it.

Two items on ownership and location of residence were used as filler items and were not scored because they were not seen as related to future time perspective. The total score is the sum of the scores taken from each item. A subject can get a maximum score of 23 and a minimum score of -14.

To test the reliability of the scoring system, questionnaires of 20 subjects were selected randomly from among 133 subjects and were scored independently by two judges using the above mentioned criteria. The two sets of scores were correlated and a significantly high correlation was obtained ($r = 0.99$, p 0.001).

Procedure

The tests were administered during counseling hours in the two high schools. The 133 subjects were tested in 4

groups including 30 to 45 subjects each.

Because it is a timed test the GEFT was always presented first (see Appendix 1), and the other two scales, I-E (see Appendix 2)and FTP (see Appendix 3) were administered in different orders to different groups. The whole procedure lasted about 1.5 hour.

R E S U L T S

Before discussing each of the hypotheses separately, it would be useful to look at the scores received by the subjects for the WI, GEFT, I-E and FTP scales. Accordingly, the means and standard deviations of the scores for each variable are presented on Table I.

The standard deviation of the WI (0.03) shows that the weight index of the subjects did not show sufficient variance. The highest weight index among the subjects was 0.29 and the lowest weight index was 0.17 which is not a sufficient dispersion.

The GEFT scores of this subject group are lower compared with the subjects of other studies done previously in Turkey. Fişek's (1979) 13 year old subjects had a mean score of 8.49 and Eski's (1980) 11 year old subjects had a mean score of 11.08 indicating that the subjects of this study show lower level of performance compared to other age groups who come from different sorts of schools.

The mean score of the I-E scale was found to be 9.11. Considering that the maximum score is 23, this mean score shows that these subjects are apparently on the internal end of the I-E continuum.

TABLE I- " Mean values standard deviations of the variables, weight index (WI), group embedded figures test (GEFT), internal -external scale (I-E), and future time perspective scale (FTP). "

Variables	Mean	Standard Deviation
WI	0.21	0.02
GEFT	7.45	4.51
I-E	9.12	3.50
FTP	16. 57	4.75

The maximum score a subject can get from the FTP scal is 23 and the minimum score is -14. The mean score of this subject group was found to be 16.57, thus indicating a moder amount of perspective.

Results concerning the hypotheses:

Hypothesis One stated that field dependency will vary positevely with weight. A regression analsis was done to determine if weight affects the field dependency scores of the subjects. The results indicate that there is no causal relationship between weight and field dependency ($F=0.20$, $d.f=126$, n.s.).

Hypothesis Two stated that external control will vary positively with weight. Again a regression analysis was performed to see if weight affects the scores achieved on the I - E scale. No causal relationship was found between weight and external locus of control either ($F=1.56$, $d.f.=126$, n.s.).

Finally, Hypothesis Three was tested which stated that future time perspective will vary negatively with weight. Regression was the analysis for this hypothesis too. Accordir to the results, a causal relationship was not found between weight and FTP scores ($F=0.14$, $d.f.=126$, n.s.). All thes results are presented on Table II.

Thus it appears that none of the hypotheses of this study were supported. A relationship between weight and the three pychological variables could not be established.

TABLE 2- "A regression analysis of the variables ".

I. V	D. V	R	R^2	B	BETA	F
WI	GEFT	0.04	0.001	-7.16	-0.04	0.20
WI	I-E	0.11	0.01	-15.55	-0.11	1.56
WI	FTP	0.03	0.001	-6.32	-0.03	0.14

DISCUSSION and CONCLUSION

The purpose of this research was to explore the relationship between weight and field dependence - independence, internal - external control and future time perspective, so that some recommendations could be given to improve weight reduction tecniques. It was hypothesized that as weight increases field dependency would increase, external locus of control would increase and future time perspective would decrease.

As a result of the analyses, no significant relationship was found between weight and any of these variables. There may be various reasons for this lack of relationship. The main reason probably lies with the subject population.

The subject population chosen was so homogenous in terms of their weight indicies and characteristics that the lack of significant relationship may be due to a lack of variance. Most of the researhes done on this topic took their subjects from weight reduction clinics and looked at the difference between clinically obese and normal subjects. The present study was restricted in finding subjects for two reasons: one, because weight reduction clinics are not that widely present in Turkey, therefore a sufficient number of subjects could not have been obtained. Secondly, the only weight clinic , found in Istanbul was part of a nutrition department of a hospital. There, patients were called noce a month and given a diet program to be applied by themselves. Those who attend

this institution were mostly women of middle age, mostly from middle to low SES and mostly uneducated. This group was thought to be inappropriate for this study, since the scales used would have presented a comprehension problem.

No significant relationship was found between weight and field dependence - independence. Contradictory outcomes have been obtained in studies done by different researchers in the West. Some of these researhes found a difference betwee the field dependency level of obese and normal pérsons whereas some did not.

Scores of the Group Embedded Figures Test (GEFT) which was developed to assess the field dependency were found to be highly correlated with the cognitive level of individuals (Witkin et al., 1971). As stated earlier, previous researhes done in Turkey found higher mean scores of the GEFT than this one. One study by Fişek (1979) found the mean score of the GEFT for girls of 13.5 years of age as 8.49. Another study by Eski (1980) obtained the score as 11.08 for children 11 years of age. Both of these mean scores are higher than the mean score (7.45) of the subjects used in this study though they are older (17-18). This difference may be explained as follows: Subjects in the previous researches were students of either a normal high school where a more strictly acedemic cirriculum is applied or they were students who were taking entrance exam for private secondary schools, meaning they were especially well coached on cognitive tasks. However, in this study, subjects are from tecnical high schools where education is based mostly on practical abilities and craftsmanship. Therefore, it may be speculated that the cognitive proceses of our subject grou may not be as developed as the others whatever their weights

are which may also have caused them to get somewhat uniformly lower scores on the GEFT.

While the particular subjects of this study may have performed poorly on the GEFT, therefore leading to no result, this is not a solitary finding. Field dependency sounds very similar to stimulus boundedness which is said to be the most particular characteristics of the obese. Therefore, this dimension was planned to be tested. But these contradictory findings as well as other negative results indicate that the last word about field dependence - independence and stimulus boundedness has not yet been said.

A significant relationship was not found between weight and internal - external control either. This finding confirms the findings of Western investigations on this subject. Many researhes failed to find any significant difference in the I-E scores of normal and obese individuals. Instead, they proposed that those who are internally controlled achieve significantly more weight loss than those who are externally controlled.

The mean value of I-E scores of our subject population was found to be 9.11 which shows they scored on the internal end of the cnotinuum. This finding seems to be against some findings by other research on Turkish youth which report that Turkish youth tend to be externally oriented and brought with dicipline relying on external methods of controls (Kağıtçıbaşı, 1981). Our seemingly contradictory results may be due to the fact that the internal statements of most of the statement pairs on the questionnaire aer appearently more socially desirable. The subjects might have chosen the

statements which seemed more socially desirable to them rather than those which they really prefered and believed. Therefore, their scores may not have reflected their actual beliefs but they may have answered the questions in what they thought was the socially accepted direction.

Similarly to other results, a significant relationship was not found between weight and future time perspective. Because the FTP scale was originally developed to assess suicide potential, no other study was found which used some sort of FTP scale on obesity in the literature. Therefore, there was no chance to compare the score obtained in this study with any other finding. A different scoring system from the original was developed to manipulate the scale for use with obesity. Though the reliability of the new scoring syste was tested between two judges, a validity check could not be achieved. Apparently, this scale requires further investigati

In summary, no relationship was found between weight and the chosen variables which are thought to be the psycholo gical characteristicts of the obese. A methodological exlanati can be brought to this finding, that is the homogeneity of the subject group in terms of their weight indicies. In other words, there very few real obese among the subjects. However, similar results were obtained in the West where researh can be maintained under better conditions. This brings to mind the speculation that the origin of the problem is different than the proposed one. Maybe, behavioral characteristics of the obese do not play that important role in their being obese. Or maybe, the obese as a group do not even have common psychological characteristics.

In a series of experiments Schachter has claimed that

the obese have common psychological characteristics, bein stimulus bounded. But variables which are very similar to stimulus boundedness, this finding is not always shown to be reliable by other researhers. Thus, Schachter's studies may need to be reevaluated or better still, replicated.

Thus, if the original claim of stimulus boundedness i found to be not valid, then attempts to find related psych ical characteristics would be abondened. Obesity, then nee a new perspective. The onset of obesity, weight reduction trials and maintainance of lost weight maybe depend on oth aspects than behavioral or psychological characteristics o the obese. Maybe, biochemical factors are more important i explanation of obesity, maybe the therapist patient relatic ship is more important in achieving weight reduction or may any other factor. Further investigations would unearth more unknown facts about obesity.

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Witkin,H. A. and Goodenough,D.R., "Field Dependence and Interpersonal Behavior ", Research Bulletin, Educational Testing Service, New Jersey,1976.

Witkin,H. A. and Goodenough, D.R., "Field Dependence Revisited Reseach Bulletin, Educational Testing Service, New Jersey, 1976.

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A P P E N D I X I

GROUP EMBEDDED FIGURES TEST

GİZLENMİŞ ŞEKİLLER
GRUP TESTİ

Geliştirenler: Philip K.Oltman, Evely Raskin ve A.Witkin

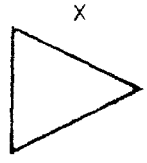
Türkçeye ilk çeviren: Güler Okman

Adı Soyadı:
Tarih

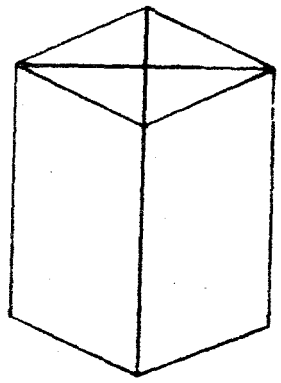
Cinsiyet
Doğum Tarihi:

AÇIKLAMA: Bu test sizin karmaşık bir şekil içinde gizlenmiş basit bir şekli bulma yeteneğinizi ölçmektedir. Örnek olarak aşağıda "X" diye adlandırılmış basit bir şekil verilmiştir.

X



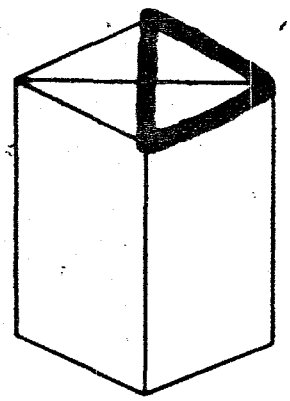
Bu basit şekil aşağıda karmaşık şekil içinde gizlenmiştir:



Sizden istenen, "X" adlı bu basit şekli karmaşık şeklin içinde bulup kalemle üzerinden çizmektir. Unutmayın, basit şekil karmaşık şeklin içinde AYNI BÜYÜKLÜKTE, AYNI BİÇİMDE ve AYNI YÖNE DÖNÜK olarak bulunmaktadır.

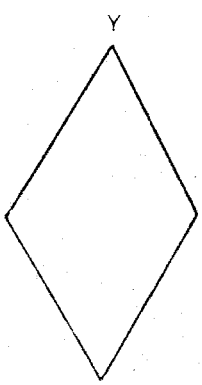
Çizme işini bitirince sayfayı çevirip doğru çözümle karşılaştırınız.

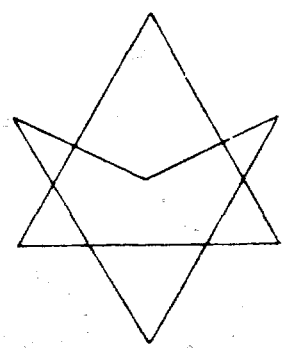
Karmaşık şekil üzerinde basit şeklin çizilerek işaretlenmiş olduğu aşağıdaki çözüm doğrudur.



Gördüğünüz gibi, doğru şekil sağ üstteki üçgendir. Sol üstteki üçgen basit şekle benzese de ters yöne dönük olduğundan yanlıştır.

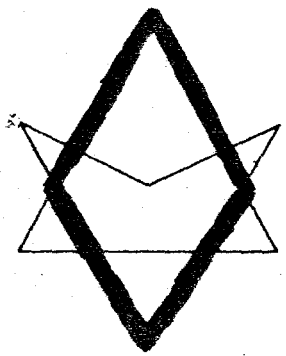
Şimdi aşağıdaki örneği deneyiniz. "Y" işaretli basit şekli sağ alttaki karmaşık şekil içinde bulup kalemle üzerini çiziniz.





Kendi çözümünüzü karşı say'adaki doğru çözümle karşılaştırınız.

Çözüm:



Testin bundan sonrasında yukarıdaki örneklere benzer problemler bulunmaktadır. Her sayfada karmaşık bir şekil ve onun içinde gizlenmiş olan basit şekli belirten bir harf göreceksiniz. Her problemde, karmaşık şekil içinde bulmanız gereken basit şekli görmek için bu kitapçığın ARKA KAPAĞINA bakınız. Sonra tekrar karmaşık şekle dönerek, onun içinde basit şekli bulup kalemle üzerini çiziniz.

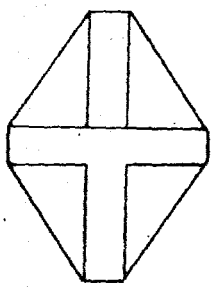
Şu noktalara dikkat ediniz:

1. Basit şekillere istediğiniz kadar bakabilirsiniz.
2. YAPTIĞINIZ HER YANLIŞI SİLİNİZ.
3. Problemleri sırayla yapınız. Çok zor durumda kalmadıkça kesinlikle hiçbir problemi atlamayınız.
4. Her problem için karmaşık şeklin üzerine YALNIZ BİR TANE BASİT ŞEKİL çiziniz. Birden fazla basit şekil görebilirsiniz ama bunlardan sadece birinin üzerini çiziniz.
5. Her seferinde, basit şekil arka kapaktaki görünüşüyle AYNI BÜYÜKLÜKTE, AYNI BİÇİMDE ve AYNI YÖNE DÖNÜK olarak karmaşık şeklin içinde bulunmaktadır.

Size söylenmeden sayfayı çevirmeyiniz.

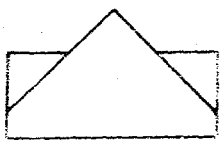
BİRİNCİ BÖLÜM

1



Basit Şekil "B"yi bulunuz.

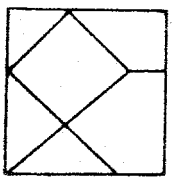
2



Basit Şekil "G"yi bulunuz.

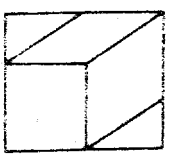
Öbür sayfaya geçiniz.

3



Basit Şekil "D"yi bulunuz.

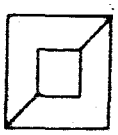
4



Basit Şekil "E"yi bulunuz.

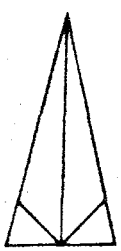
Öbür sayfaya geçiniz.

5



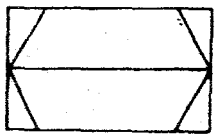
Basit Şekil "C"yi bulunuz.

6



Basit Şekil "F"yi bulunuz.

Öbür sayfaya geçiniz.

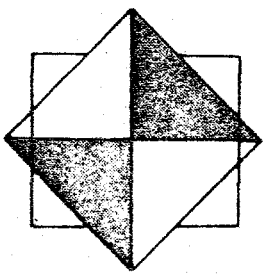
7 

Basit Şekil "A"yı bulunuz.

DURUNUZ
Bundan sonra ne yapacağınız söyleninceye kadar bekleyiniz

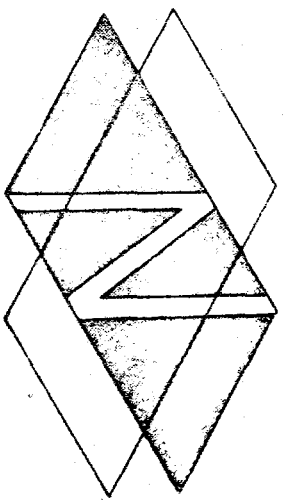
İKİNCİ BÖLÜM

1



Basit Şekil "G"yi bulunuz.

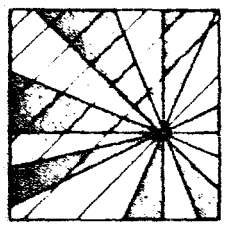
2



Öbür sayfaya geçiniz.

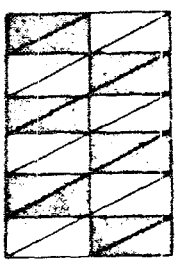
Basit Şekil "A"yı bulunuz.

3



Basit Şekil "G"yi bulunuz.

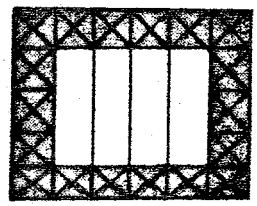
4



Basit Şekil "E"yi bulunuz.

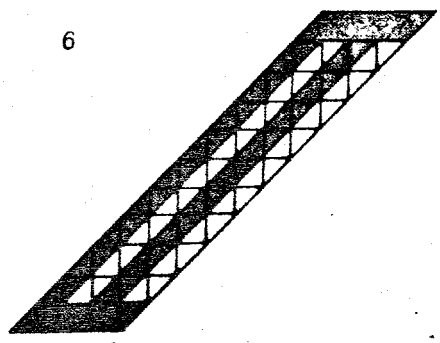
Öbür sayfaya geçiniz.

5



Basit Şekil "B"yi bulunuz.

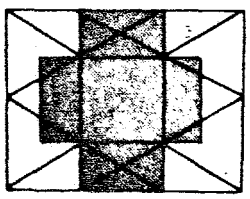
6



Basit Şekil "C"yi bulunuz.

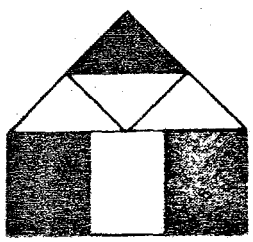
Öbür sayfaya geçiniz.

7



Basit Şekil "E"yi bulunuz.

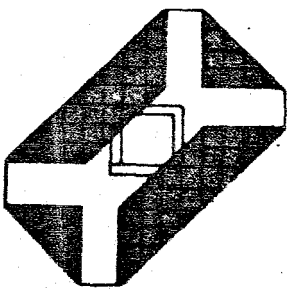
8



Basit Şekil "D"yi bulunuz.

Öbür sayfaya geçiniz.

9



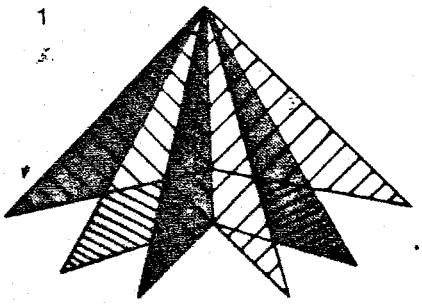
Basit Şekil "H"yi bulunuz.

DURUNUZ

Bundan sonra ne yapacağınız söyleninceye kadar bekleyiniz

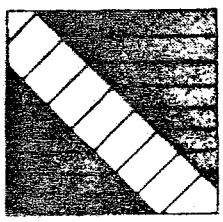
ÜÇÜNCÜ BÖLÜM

1



Basit Şekil "F"yi bulunuz.

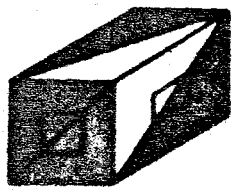
2



Basit Şekil "G"yi bulunuz.

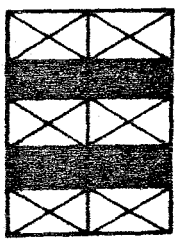
Öbür sayfaya geçiniz.

3



Basit Şekil "C"yi bulunuz.

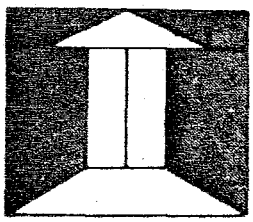
4



Basit Şekil "E"yi bulunuz.

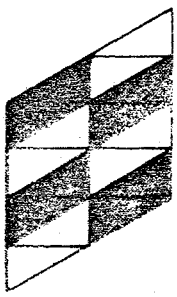
Öbür sayfaya geçiniz.

5



Basit Şekil "B"yi bulunuz.

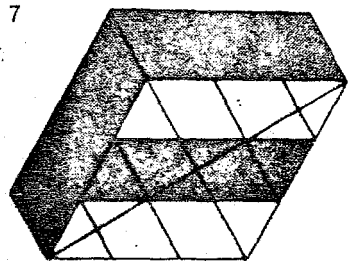
6



Basit Şekil "E"yi bulunuz.

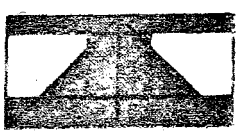
Öbür sayfaya geçiniz.

7



Basit Şekil "A"yı bulunuz.

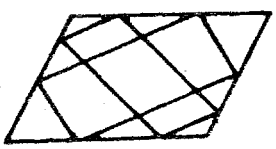
8



Basit Şekil "C"yi bulunuz.

Öbür sayfaya geçiniz.

9



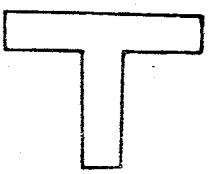
Basit Şekil "A"yı bulunuz.

DURUNUZ
Bundan sonra ne yapacağınız söyleninceye kadar bekleyiniz

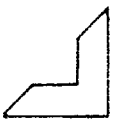
BASİT ŞEKİLLER

A

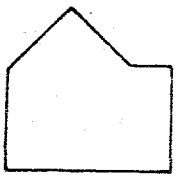
B



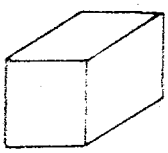
C



D

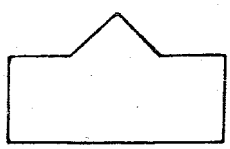


E

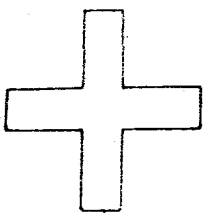


F

G



H



A P P E N D I X II

Aşağıda a ve b olarak verilen çift cümlelerin hangisinin daha doğru olduğunu düşünüyorsanız onun önüne X işareti koyunuz. İşaretlemeniz gerektiğini düşündüğünüzü veya doğru olmasını arzu ettiğinizi değil, gerçekten doğru olduğuna inandığınızı işaretleyiniz. Bazı çift cümlelerin her ikisi de fikrinize uygun olabilir veya ikisi de fikrinize uygun olmayabilir. Böyle bir durumda da gene bu iki cümleden fikrinize biraz daha uygun olanı seçiniz. Her çift cümleyi kendi başına ele alınız, ona göre cevap verirken diğer çift cümlelere verdiğiniz cevapların tesirinde kalmayınız.

1. __ a. Çocukların başlarının belaya girmesinin nedeni ana babalarının onları çok fazla cezalandırmasıdır.
   __ b. Bugünlerde birçok çocuğun sorun olmasının nedeni ana babalarının onlara karşı çok gevşek davranmasıdır.

2. __ a. Kişilerin hayatlarındaki üzücü olayların çoğuna kısmen şanssızlık neden olur.
   __ b. Kişilerin başına gelen talihsizliklere kendi yaptıkları hatalar neden olur.

3. __ a. Savaşların var olmasının ana nedenlerinden biri insanların siyasete yeterince ilgi duymamalarıdır.
   __ b. İnsanlar ne kadar önlemeğe çalışırlarsa çalışsınlar, savaşlar her zaman var olacaktır.

4. __ a. Eninde sonunda insanlar bu dünyada hakettikleri saygıyı kazanacaklardır.

__ b. Ne yazık ki ne kadar çabalarsa çabalasın kişinin değeri çoğu zaman anlaşılmaz.

5. __ a. Öğretmenlerin öğrencilere adil davranmadıkları düşüncesi çok saçmadır.
__ b. Birçok öğrenci aldıkları notların ne dereceye kadar tesadüfi olaylardan etkilendiğinin farkında değildir.

6. __ a. Şans izin vermezse kişi etkili bir lider olamaz.
__ b. Yetenekli oldukları halde lider olamamış kişiler ellerine geçen fırsatları yeterince değerlendirememiş demektir.

7. __ a. Ne kadar çabalasanız da nedense bazı insanlar sizi sevmezler.
__ b. Başkalarının kendisini sevmesini sağlayamayan kişi insanlarla nasıl geçineceğini bilmeyen kişidir.

8. __ a. İnsanın kişiliğinin belirlenmesinde en önemli rolü ırsiyet üstlenir.
__ b. İnsanın kişiliğini geçirdiği deneyimler belirler.

9. __ a. Sık sık şahir oldum ki "her şey olacağına varır".
__ b. Kararlı adım atmak yerine kadere inandığımda hep zararlı çıkmışımdır.

10. __ a. İyi hazırlanmış bir öğrenci için haksız bir sınav hemen hemen hiç söz konusu olamaz.
__ b. Çoğu zaman sınav soruları dersin konusuyla öylesini ilgisiz oluyor ki çalışmanın gerçekten yararı olmuyor.

11. __ a. Başarı çok çalışmaya bağlıdır, şansla hemen hemen hiç ilişkisi yoktur.
__ b. İyi bir işe girmek esas olarak uygun zamanda uygun yerde bulunmaya bağlıdır.

12. __ a. Herhangi bir vatandaş hükümet kararları üzerinde etkili olabilir.
__ b. Dünya başta bulunan birkaç güçlü kişi tarafından yönetilir, herhangi birinin bu konuda yapabileceği fazla bir şey yoktur.

13. __ a. Plan yaptığımda onları başarı ile uygulayacağımdan hemen hemen eminimdir.
__ b. Çok önceden planlar yapmak her zaman akıllıca bir iş değildir. Çünkü, nasılsa birçok şey iyi veya kötü şansa bağlıdır.

14. __ a. Bazı insanlar vardır ki nereden bakarsan bak iyi değildirler.
__ b. Her insanda iyi olan bir yön vardır.

15. __ a. Benim için istediğini elde etmenin şansla hiç ilgisi yoktur.
__ b. Çoğu kez herşey öylesine şansa bağlıdır ki, ne yapacağımıza karar vermek için yazı tura bile atabiliriz.

16. __ a. Kimin sözünün geçeceği genellikle uygun yerde en ilk bulunma şansına sahip olmağa bağlıdır.
__ b. İnsanlara doğru olanı yaptırmak yetenek işidir, şansla hemen hemen hiç ilişkisi yoktur.

17. __ a. Dünya meselelerinde çoğumuz ne anlayabildigimiz ne de kontrol edebildiğimizgüçlerin kurbanlarıyız.
__ b. İnsanlar siyasal ve toplumsal konularda aktif olarak katılarak dünya olaylarını kontrol edebilirler.

18. __ a. Çoğu kişi hayatlarının ne dereceye kadar tesadüfi olaylar tarafından kontrol edildiğinin farkında değildir.
__ b. Gerçekte şans diye bir şey yoktur.

19. __ a. Kişi daima hatalarını kabul etmeğe gönüllü olmalıdı
__ b. Genellikle kişinin hatalarını örtbas etmesi en doğrudur.

20. __ a. Birinin sizi gerçekten sevip sevmediğini bilmek güçtür.
__ b. Kaç tane arkadaşınızın olduğu sizin ne kadar iyi bir insan olduğunuza bağlıdır.

21. __ a. Başımıza gelen kötü olaylar uzun vadede iyileriyle dengelenir.
__ b. Birçok talihsiz olay yeteneksizlik, bilgisizlik, tembellik veya üçünün bir arada bulunması sonucu meydana gelir.

22. __ a. Yeterli çaba harcarsak siyasette kötülüğü ortadan kaldırabiliriz.
__ b. İnsanların politikacıların masa başında yaptığı şeyleri kontrol altında tutması zordur.

23. __ a. Bazan öğretmenlerin nasıl not verdiklerini anlayamıyorum.

__ b. Çalışma oranım ile aldığım notlar arasında direkt bir bağlantı vardır.

24. __ a. İyi bir lider insanların ne yapmaları gerektiği hakkındaki kararları kendi kendilerine vermelerini bekler.
__ b. İyi bir lider herkese düşen görevi açıkca bildiren kişidir.

25. __ a. Çoğu zaman başıma gelen olaylar üzerinde çok az etkim olduğunu düşünürüm.
__ b. Tesadüf ya da talihin hayatımda önemli bir rol oynadığına inanmayı aklım almıyor.

26. __ a. İnsanlar arkadaşca davranmağa çalışmadıkları için yalnızdırlar.
__ b. İnsanları memnun etmek için çok fazla çabalamanın yararı yoktur, seni ya severler ya sevmezler.

27. __ a. Liselerde çok fazla spor üzerinde duruluyor.
__ b. Takım sporları olumlu bir kişiliğin gelişmesi için mükemmel bir yöntemdir.

28. __ a. Başıma gelen herşey benim davranışlarımın sonucudur.
__ b. Zaman zaman hayatımın gidişatı üzerinde yeterli kontrolüm yokmuş gibi hissediyorum.

29. __ a. Çoğu zaman politikacıların davranışlarını anlayamıyorum.
__ b. Uzun vadede bütün vatandaşlar yerel de olsa ülke çapında da olsa kötü yönetimden sorumludurlar.

A P P E N D I X III

A şağıdaki soruları mümkün olduğu kadar çabuk ve tam olarak yanıtlayın. Yanıt olarak aklınıza ilk gelen düşünce ve duygularınızı yazın. Bu soruların doğru ya da yanlış yanıtları yoktur. Yanıtlar sadece sizin tepkilerinizi yansıtmaktadır.

Gelecekte bir yıl seçin ve aşağıdaki soruları sanki o yılda yaşıyormuşsunuz gibi yanıtlayın.

1. Seçtiğiniz yıl ve ay _____

2. O zamanki yaşınız _____

3. O zamanki medeni haliniz: bekar ___, nişanlı ___, evli ___, eşinden ayrı yaşıyor ___, boşanmış ___, dul ___, yeniden evlenmiş ___.

4. (Eğer varsa) çocuklarınızın yaşları ve cinsiyetleri _____

5. Yalnız mı yaşıyorsunuz ___, başkalarıyla mı yaşıyorsunuz __ Başkalarıyla ise, kiminle olduğunu belirtin _____.

6. Varsa, arabanızın markası ve modeli _____

7. Nasıl bir işte çalışıyorsunuz tarif edin (ya da siz çalışmıyorsanız eşiniz nasıl bir işte çalışıyor) _____

8. Boş zamanlarınızda ne yaparsınız _____

9. Çoğu zaman meşgul müsünüz evet ___, hayır ___, bazan ___

10. Ne kadar değiştiniz çok ___, biraz ___, az ___, hiç __

11. Hayatınızda önemi olan kişiler ne kadar değişti çok ___, biraz ___, az ___, hiç ___.

12. Amaçladığınız şeyleri yerine getirdiniz mi (neler olduğunu belirtin)

13. Yaşamınız bugüne kadar nasıl süregeldi çok olumlu ___, fena sayılmaz ___, pek iyi değil ___, çok kötü ___.

14. Mutlumusunuz _____

15. Yukarıda tasarladığınız gelecekteki bu günlerin gelmesini arzuluyormusunuz _____.

16. Yukarıda tasarladığınız bu geleceğin gerçekleşeceğinden eminmisiniz evet eminim ___, olabilir ama pek ihtimal vermiyorum ___, hayır emin değilim ___.