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The Effects of Response Sets on the Children's Manifest Anxiety Scale

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THE EFFECTS OF RESPONSE SETS ON THE CHILDREN'S MANIFEST ANXIETY SCALE

by

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Brent L. Andersen

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ABSTRACT

The Effects of Response Sets on the
Children's Manifest Anxiety Scale

by

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Modified versions of the Children's Manifest Anxiety Scale (CMAS) and Marlow-Crowne Social Desirability Scale (MCSDS) were administered to 40 normal and 29 retarded elementary school children to determine the effects of response sets upon CMAS scores. The results of the research indicated that CMAS scores obtained from retarded subjects reflect the use of acquiescence and denial response sets. Acquiescence response set did not affect the CMAS scores of normal children although there was a negative relationship between their CMAS scores and social desirability. The higher anxiety scores obtained by normal girls was felt to reflect their lower use of social desirability as compared to boys. Normal boys obtained higher social desirability scores which seemed to account for their lower anxiety scores.

(39 pages)

CHAPTER I

INTRODUCTION

It is usually assumed that psychological test scores are determined by the content of the items within the test. However, psychologists (Cronbach, 1946; Edwards, 1953) have shown that subjects often respond to personality test items without regard to the manifest content of the items. A response which is elicited by factors other than item content is called a response set. An example of the use of a response set is seen when a subject attempts to answer personality items in a manner to make himself look better than if he answered the items according to actual item content.

There are many possible response sets. The two considered most frequently are acquiescence and social desirability. Acquiescence response set has been defined by Cronbach (1942) as the tendancy to agree with an item when in doubt about item content. Cronbach feels that subjects will respond to item content as long as the content is clear and understandable, but regress to the use of acquiescence set if item content is ambiguous.

Social desirability response set is the tendency for subjects to answer personality test items in a manner that reflects socially approved behavior and attempts to distort the actual behavior of the subjects. Edwards (1953) found that subjects tend to ascribe to socially desirable statements and reject items that appear to be socially undesirable. Social desirability response set is seen as a function of the test items endorsement by the population. Therefore, items which are ascribed to by the population are highly susceptible to response set, and the

answer given may represent a distortion of the true behavior of the individual.

It was the purpose of this research to determine if the response sets of acquiescence and social desirability affect the test scores of children taking the Children's Manifest Anxiety Scale (CMAS). The CMAS was chosen because of its wide use by researchers attempting to better understand the dynamics of anxiety in children. It was felt that some of the current research with the CMAS which attributes higher anxiety levels to certain populations may reflect the effects of response sets and not anxiety effects.

Attempts to identify the use of social desirability by subjects taking personality tests have generally followed the logic used to construct the Lie scale of the Minnesota Multiphasic Personality Inventory (MMPI). The items of the MMPI Lie scale describe highly desirable, but extremely improbable behavior. These items are presented to subjects taking the MMPI in an effort to find subjects who are "faking good" by answering the items in the socially desirable direction. Scales designed to assess the use of social desirability use the same type of items, i.e., items describing desirable, but highly improbable bahaviors (Crowne and Marlow, 1960). Both lie scales and social desirability scales attempt to assess subjects' attempts to fake good by answering personality items in the socially approved direction. The difference in the names of the two scales implies a different orientation of the developers of the scale, not an attempt to measure different phenomena. Developers of personality scales perfer the term "lie scales" whereas researchers of response sets prefer to use the term "social desirability scale."

The development of the Taylor Manifest Anxiety Scale (MAS) (Taylor,

1953) was an attempt to produce an instrument which could assess the amount of anxiety present in subjects. More recently, Castaneda, McCandless, and Palermo, (1956) have developed the Children's Manifest Anxiety Scale (CMAS) following the logic used in developing the MAS. The CMAS is an inventory of 53 items which require a true-false response. An eleven-item lie scale is embedded within the scale and is designed to identify attempts to answer items in a socially desirable manner.

The authors of the CMAS found a low correlation between the lie scale and anxiety items on the CMAS. This was interpreted as indicating that children do not attempt to answer the CMAS items in a socially desirable manner. However, other researchers (Lunneborg, 1964; Sarason, et. al., 1960) have correlated other lie scales with CMAS scores and have obtained results which infer that children do use socially desirability response set when answering the CMAS. Research showing differences in anxiety for certain groups of children may be due to the differential use of response sets and not different anxiety levels.

It would seem that some children, especially retarded children, may have difficulty discriminating item content on the CMAS and may, according to Cronbach, acquiesce. All items on the CMAS are scored as indicating anxiety when they are answered true. As subjects who are acquiescing tend to agree with items, they will use the true response alternative and raise their CMAS scores. When children are having trouble discriminating ambiguous item content, they may not be able to answer the items in the socially desirable manner. The CMAS items require the subjects to admit to worries, fears, and anxieties. It would seem that admitting to such behaviors is socially undesirable, and many subjects may answer the items in the socially desirable way and deny the presence

of such behaviors. It is possible that some subjects receive higher anxiety scores because they are not able to discriminate item content sufficiently to determine the socially desirable answer. It is also possible that some subjects receive higher anxiety scores because of a lowered use of social desirability even though these subjects are aware of what the socially desirable answer is.

In summary, this research has attempted to determine the effects of acquiescence and social desirability on the CMAS scores of elementary school children. This research was more specifically undertaken to determine if response sets may account for the different anxiety levels found in normal and retarded school children.

CHAPTER II

REVIEW OF LITERATURE

Response Sets

Cronbach (1946, 1950) indicated that response sets are a special case of learned behavior elicited primarily as a function of item structure and independent of item content. Jackson and Messick (1958) referred to response sets in terms of personality traits. The question of whether response sets are a function of item structure or are a reflection of certain personality types remains to be answered. Research data are available to support both positions. It is possible that there are multiple causes of responses sets (Rorer, 1965).

Acquiescence

Most researchers feel that acquiescence, i.e., the tendency to agree with an item without regard to item content, is a function of item ambiguity. Cronbach (1946) found that acquiescence seems to be a function of the amount of structure present in a test. He agreed that there may be acquiescent subjects, but the degree of their acquiescence is a function of the ambiguity present in the test items. Adams and Kirby (1963) supported the function of ambiguity in acquiescence and felt that acquiescence may be an important factor in the test results of subjects who have difficulty discriminating item content. Berg and Rapaport (1954) have shown what they call an "American cultural stereotype " to use the responses true, yes, and agree in unstructured situations thus supporting the ambiguity position on acquiescence.

Some researchers support the position relating item ambiguity with acquiescence, but have suggested other conditions as being necessary also.

Diers (1961) feels that item ambiguity is the cause of acquiescence, but reports finding other response sets such as denial being elicited by ambiguous test items. She feels that other factors must be accounted for before one can predict the use of acquiescence because of ambiguous test items. Miklich (1966) and Stricker (1962) have provided data which supported Diers' findings. Miklich feels that items which are ambiguous, yet seem important, are likely to elicit acquiescence whereas unimportant, ambiguous items more like will elicit a set of denial as found by Diers. Stricker manipulated personality test items and concluded that acquiescence occurs more often with moderately worded items, while social desirability occurs more often with extremely worded test items.

In opposition to the researchers supporting item ambiguity as the cause of acquiescence are Couch and Keniston (1960). They feel that the use of response sets is a manifestation of a personality trait, thus their description of an acquiescent person as a "yeasayer." They feel that there are definite personality types who use acquiescence response sets when responding to personality tests. Rorer (1965) supported this position because he feels that a response set implies a conscious or uncounscious attempt by the subject to distort his response. This definition would imply the presence of motivation thus suggesting the importance of personality in the use of response sets. Rorer feels that attempts to explain the use of response sets are to simplistic and that many factors are needed to explain the use of response sets.

Social Desirability

Edwards (1953) noted that the probability of test item endorsement increases with the judged social desirability of the item. More specifically, a subject is more likely to ascribe to test items which he judges to be socially desirable.

Other researchers have published research which supplies other important factors relevant to the elicitation of social desirability response set. Crandall, Crandall, and Katkowsky, (1965) found that socially desirable responses are used more frequently by younger children than by older children. They also found that more socially desirable responses are given by "dull" children than normal children, and by girls as compared to boys. Stricker (1962) has shown that more socially desirable answers are given to extreme personality test items, but that extreme attitude items do not seem to elicit an increase in socially desirable responses.

Crowne and Marlow (196) question the common definition of social desirability as stated by Edwards which focuses on the judged desirability of an item and ignores the personality characteristics of the subject. They feel that a personality test item is not rejected because of its socially undesirable implications, but because most personality items describe behaviors which have low occurrance in the general population. It is possible that the subjects are actually denying the presence of the behavior in question because they do not display this behavior, and not because they are afraid of the social implications of admitting to this behavior. The high negative relationship found between many social desirability scales and personality tests may actually be due to the comparison of low probability behaviors found in personality tests with high probability behaviors found in most social desirability scales.

Crowne and Marlow feel that many social desirability scales actually measure the amount of socialization of a subject, not a subject's tendency to use social desirability. These scales are constructed so that it is impossible to determine if the subject is faking good by answering in the socially desirable direction, or honestly reporting that he behaves in

a highly socialized manner. Crowne and Marlow also feel that future attempts to measure social desirability must result in scales designed after the MMPI Lie scale. By doing this, the researcher can be more confident that he is measuring attempts to fake good by ascribing to highly improbable, although socially desirable, behavior and not measuring the actual behavior of a highly socialized subject.

The Children's Manifest Anxiety Scale

Castaneda, et. al., (1956) have developed an anxiety scale for children adapted after the Taylor Manifest Anxiety Scale. The children's scale, known as the Children's Manifest Anxiety Scale (CMAS), consists of 53 items which are presented in individual or group form and require only a true or false response on a prepared answer sheet. Eleven of the items are designed as a lie scale to identify subjects who use social desirability response set in an attempt to fake good. Norms were developed for fourth, fifth, and sixth grade children from regular classes.

The original norms indicated that girls score higher on this scale than do boys. The scores on the embedded 11 item lie scale failed to differentiate boys from girls and did not correlate with the remaining anxiety items. The one week reliability coefficients for the scale ranged from .70 to .94 which are all significant at the .01 level.

The authors of the CMAS feel that the low correlation between the CMAS lie scale and the full scale is an indication that the use of social desirability (attempting to fake good) does not significantly affect the test results of children on the CMAS. However, Sarason et. al. (1960) ran correlations between his lie scale from the Test Anxiety Scale for Children and the CMAS resulting in significant negative correlations.

This finding was supported by Lunneborg (1964) who correlated her social desirability scale with the CMAS. These findings would indicate that social desirability is related to CMAS scores. Furthermore, the direction of the relationship shows that anxiety scores are reduced as social desirability or lie scale scores increase. This would indicate that children may be lowering their anxiety scores by answering anxiety items in the socially desirable manner and denying anxiety.

Malpass, Mark, and Palermo (1960) published norms for the CMAS for use with retarded elementary school children. This research reported finding higher anxiety scores for retarded children as compared to normal children. This finding has since been supported by research reported by Silverstein and Mohan (1964), Knights (1963), Lipman (1959), and Weiner, et. al., (1960). Research published by Carrier, Orton, and Malpass (1962) also supported the finding of higher anxiety in retarded children, but Carrier, et. al., questioned his findings because of a noted acquiescence response set displayed by the retarded subjects.

Additional research aimed at assessing the presence of acquiescence in the CMAS scores of children has not been found. Chapman and Campbell (1959) have published research which shows no evidence of acquiescence in the test results of adults on the Taylor Manifest Anxiety Scale. This is as expected if acquiescence is due to item ambiguity; however, it is likely that children will encounter more ambiguity when attempting to answer personality items and may acquiesce.

The Marlow-Crowne Social Desirability Scale

The Marlow-Crowne Social Desirability Scale (MCSDS) attempts to measure the tendency toward the use of social desirability response set.

The MCSDS is somewhat different than most scales of social desirability, eg., the Edwards Social Desirability Scale. The content of many social desirability scales is highly loaded with items indicating behavior pathology. The MCSDS avoids this type of item content because it is not clear if a subject is responding in terms of social desirability or actually denying the presence of this behavior.

The MCSDS has followed the logic that was used to develop the lie scale of the MMPI. This type of scale attempts to assess faking good (social desirability) by presenting items that are socially desirable but highly improbable descriptions of behavior (Meehl and Hathaway, 1946). Therefore, answering an item in the scored direction would indicate a socially approved response which indicates a behavior that is so improbable that it infers an attempt by the subject to fake good.

Liberty, Vitola, and Pierson (1965) used factor analysis to show that scales of social desirability such as the MCSDS and anxiety scales may well be measuring the same trait. This research would imply that both types of scales may account for their scores in terms of social desirability. This study, along with the studies showing high negative relationships between social desirability scales and anxiety scales, leads one to question the findings of many researchers using anxiety scales. It seems that these studies would infer an attempt by the subjects to lower their anxiety scores by denying anxiety and answering in the socially desirable direction. The research showing that acquiescence is a function of item ambiguity would lead one to question the research showing higher anxiety scores for retarded children. It seems only logical that retarded children are going to experience more difficulty discriminating item content and may be acquiescing. The use of acquiescence set in responding to the

CMAS would elevate anxiety scores because of the true keying of the scale. It would seem that present research has not fully accounted for the effects of response sets which may account for high anxiety scores found in groups such as retarded children and females as compared to males.

CHAPTER III

METHODS AND PROCEDURES

Subjects

The subjects consisted of 40 children taken from a regular 5th-grade classroom and 29 children taken from intermediate special education classes. The subjects taken from the regular classroom were defined as the normal experimental group, and the subjects from the special education classes were defined as the retarded experimental group.

The normal subjects were taken from the regular 5th-grade class at Woodruff School in Logan, Utah. The retarded subjects were taken from intermediate special education classes in Logan, Cache County and Box Elder County schools. The normal subjects averaged 11.05 years of age and the retarded subjects had an average age of 11.20 years.

Tests Administered

The Children's Manifest Anxiety Scale (CMAS) and the Marlow-Crown Social Desirability Scale (MCSDS) (see Appendix) were modified to meet the needs of this research. All items for both scales were read by the experimenter, and the subjects merely had to indicate a true or false response on a prepared answer sheet.

The Modified Children's Manifest Anxiety Scale

The CMAS was modified by shortening the scale to 20 items and by developing reversed forms of these 20 items. The shortened scale was desirable because of the short attention spans of retarded subjects and was supported by the research of Levy (1958) which reports high correlations between 10-item short forms of the CMAS and the full scale.

The original 20 items were reversed in meaning in order to determine

if the subjects respond to item content on the CMAS. The original and reversed items were used to make a 40-item scale that was presented in an alternated (original-reversed-original) and counterbalanced (item 1-item 20-item 2, etc.) fashion. The reversed items were formulated so as to require the opposite answer given to the original item. For example, if a subject answers an original item with a true response, the reversed form of that item would require a false response in order to signify the same behavior.

If the original items are scored for true responses and the reversed items are scored for false responses, a high positive correlation should be attained between the two scales if item content is being responded to. This correlation should be similar, ie., fall within the same significance level, to the test-retest reliability coefficients of the original and reversed items. If the subjects use acquiescence to respond to the test items, both forms of scales will be answered in the same direction because of the tendency to use the true response alternative. This will result in a higher mean score for the original items because of their true keying. This will also result in a negative correlation between the original and reversed scales.

The Modified Marlow-Crowne Social Desirability Scale

Some of the items in the MCSDS were deleted or modified because they referred to adult behaviors or contained words that might be difficult for children to understand. The modified scale contained 21 items which still constitutes a longer scale than the lie scale embedded within the CMAS.

The scores from the MCSDS were correlated with the CMAS scores in order to determine if social desirability was related to anxiety scores.

A high negative correlation may indicate that social desirability is being used to lower anxiety scores. The MCSDS was also used to help determine which groups of children tended to use social desirability response set the most.

Gathering Data

Both tests were administered in group form to the normal and retarded experimental groups. The modified CMAS was re-administered one week later in order to obtain test-retest reliability coefficients for the original and reversed items.

All questions were read by the author, and the children responded by circling true or false alternatives. The following instructions were read before all administrations:

> I am going to read some sentences to you. If what I read describes how you feel, answer true on your answer sheet. If what I read does not describe how you feel, answer false on your answer sheet. There are no right or wrong answers for the sentences I read. I merely want to find out how you feel about the sentences I read.
>
> Let's try an example. The sentence is: "I am afraid of the dark." If you are afraid of the dark, the sentence describes how you feel, and you should circle true on your answer sheet. If you are not afraid of the dark, you will circle false on your answer sheet because the sentence does not describe how you feel.
>
> Are there any questions before we begin? If there are any words that you don't know, you will have to guess at them. I cannot tell you what any of the words mean which will be read to you.

Hypotheses

The following null hypotheses were developed to test for aquiescence:

-There is no difference between the means of the original CMAS items and reversed CMAS items for the normal subjects.

-There is no difference between the means of the original CMAS items and reversed CMAS items for the retarded subjects.

-The correlation coefficient between the original and reversed items of the CMAS is not different from the reliability coefficients of the CMAS for normal subjects.

-The correlation coefficient between the original and reversed items of the CMAS is not different from the reliability coefficients of the CMAS for retarded subjects.

The following null hypotheses were developed to test for the effects of social desirability.

-There is no difference between the social desirability scores (MCSDS) of normal and retarded subjects.

-There is no relationship between the CMAS scores and MCSDS scores of the normal subjects.

-There is no relationship between the CMAS scores and MCSDS scores of the retarded subjects.

Treatment of Data

To test for acquiescence effects, t ratios between the means for the original and reversed CMAS items were computed, and Pearson r correlation coefficients were computed between the original and reversed item scores.

The effects of social desirability were tested by comparing the means of the MCSDS for the two experimental groups and by correlation (Pearson r) the CMAS and MCSDS scores for the two experimental groups.

CHAPTER IV

RESULTS AND DISCUSSION

The Effects of Acquiescence

Table 1. A comparison of means for original and reversed CMAS scales.

	N	Original Scale Mean	SD	Reversed Scale Mean	SD	t
Normals	40	11.62	3.61	11.88	3.02	0.78
Retarded	29	10.74	4.46	11.61	5.01	0.60

No t value significant at .05 level of significance.

The null hypotheses stating no difference between the scores of the original and reversed CMAS scales cannot be rejected because of the data presented in Table 1. The use of acquiescence would increase the means of the original scales. This is because subjects who acquiesce tend to use the true response alternative, and the original scale was scored for true responses.

Although the group means obtained in this research tend to discount the effects of acquiescence on CMAS scores, examination of individual protocols revealed that some retarded subjects were acquiescing and answering practically all items true. The effect of this acquiescence was not evident when comparing original and reversed item means because other retarded subjects were using a response set of denial and answering most items with the false alternative. The use of denial response set elevated the reversed scale scores, which are scored for false answers, to almost the same value as the original scale scores. Therefore, the effects of denial counterbalanced the effects of acquiescence

and the group means did not reflect the effects of response sets even though they were being used by the retarded subjects. These results would tend to support Diers' findings of acquiescence and denial being elicited by ambiguous material.

Table 2. Test-retest reliability coefficients for the original and reversed scales of the CMAS and correlation coefficients between the original and reversed items of the CMAS.

	Test-retest Reliability Coef.		Original & Reversed
	Original Items	Reversed Items	Item Correlations
Normals	.800**	.755**	.742**
Retarded	.832**	.618**	-.337*

*P< .10 **P<.001

The reliability coefficients and original and reversed item correlation obtained by the normal subjects are all greater than a zero order correlation and are considered the same. For this reason, the null hypothesis stating no difference between the original and reversed item correlation and the test-retest reliability coefficients of the CMAS cannot be rejected. The null hypothesis stating no difference between the reliability coefficients and original and reversed item correlation for the retarded subjects must be rejected. The reliability coefficients obtained by the retarded subjects were significant on a positive, or ascending, axis. The correlation between the original and reversed items was signifcant on a negative, or descending, axis. As the reliability coefficients of the retarded subjects are significant at the .001 level from a .00 correlation, it is obvious that the difference between

these reliability coefficients and the original and reversed item correlation, which deviates further from a .00 correlation, because of its negative value, is of greater significance value than .001. Following this reasoning, it is evident that the correlations and reliability obtained from the retarded subjects are significantly different.

The data presented in Table 2 would indicate that the normal subjects are answering item content and not using acquiescence. Their high correlation between the original and reversed scales would indicate that they answered the different forms of each item in the opposite manner required if item content is being responded to. In addition, their answers to the opposing forms of each item are as consistent as the test-retest reliability of the same form of the items.

The negative correlation between the original and reversed scales of the CMAS obtained by the retarded subjects would indicate that they are answering most items, original or reversed, in the same manner. As the original items are scored for true responses and the reversed items are scored for false responses, answering the items in one direction will result in a negative correlation. The noted effects of acquiescence and denial discussed in Table 1 would support the inference that the retarded subjects tend to answer CMAS items by using response sets.

The Effects of Social Desirability

Table 3. Marlow-Crowne Social Desirability Scale scores for normal and retarded subjects.

Normals		Retarded		
Mean	SD	Mean	SD	t
6.38	2.70	10.64	3.48	5.39*

*P < .001

Because of the data presented in Table 3, the null hypothesis stating no difference between the social desirability scores (MCSDS) of normal and retarded subjects is rejected. It is evident that retarded subjects obtained significantly higher MCSDS scores than did normal subjects. It is doubtful, however, if one can infer that retarded subjects use the set of social desirability more than normals, after noting the effects of acquiescence and denial on the retarded subjects' CMAS scores. The social desirability scores were not altered so that a check for acquiescence and denial could be made. But noting the use of acquiencence and denial on the CMAS by the retarded subjects, this would imply that the Marlow-Crowne scores may also be a reflection of acquiescence and denial and not a reflection of greater use of social desirability response set. As stated earlier, item content must be understood before social desirability can be used. The presence of acquiescence and denial on the CMAS would imply that retarded subjects are not understanding item content, and this is probably the case with items on the Marlow-Crowne.

A significant difference between the social desirability scores of normal boys and normal girls was found during this phase of the research. Normal girls obtained a mean MCSDS score of 5.40 whereas boys obtained a mean of 7.35. This difference is significant at the .05 level of significance. These results are contrary to earlier published research that states that girls use social desirability more than boys. The use of the Marlow-Corwne (MCSDS) to identify social desirability would indicate that boys, not girls, use social desirability to the greater extent. This would lend support to Marlow and Crowne's contention that social desirability scales must be modeled after the MMPI Lie scale in order to

identify subjects who are attempting to fake good by answering items in the socially desired direction. Marlow and Crowne feel that other social desirability scales merely measure a subject's degree of socialization and not his attempts to falsify answers in the socially-approved direction. This would seem to explain the higher social desirability scores obtained by girls on other social desirability scales because it is assumed that girls as a group are more socialized than boys.

Table 4. Correlations between MCSDS scores and CMAS scores.

Normals	Retarded
-.404*	.023 N.S.

*P < .01

The data presented in Table 4 indicates that the null hypothesis for the reatrded subjects which states no relationship between the CMAS scores and MCSDS scores cannot be rejected. However, this hypothesis is rejected for the normal subjects because of the significant relationship between their CMAS scores and MCSDS scores.

The low correlation obtained by the retarded subjects is not seen as an indication of the absence of social desirability affecting CMAS scores. Instead, it can probably be inferred as one more indicator of the use of acquiescence and denial response sets to answer both the CMAS and MCSDS. There is an almost even number of true-keyed and false-keyed items on the MCSDS. By using items which require both true and false responses, the MCSDS is not subject to the effects of acquiescence and

denial. The use of either of these response sets will result in the same score. Therefore, we have a scale (MCSDS) which is not affected by response sets such as acquiescence and denial being correlated with a scale (CMAS) which is affected by acquiescence and denial and obtaining an insignificant correlation which would be predicted.

The significant negative correlation obtained by normal subjects would indicate that social desirability is related to their CMAS scores. The negative correlation would indicate that subjects who score high in social desirability use this same type of response, i.e., faking good, to lower their anxiety scores. This is especially evident when it is noted that girls obtained lower social desirability scores, indicating a more honest test-taking attitude, but also obtained higher anxiety scores than did normal boys. This data would indicate that the higher anxiety scores obtained by girls may well be the result of less use of social desirability and not an indication of more anxiety.

CHAPTER V

SUMMARY AND CONCLUSIONS

Summary

This research attempted to determine if normal and retarded elementary school children respond to item content on the Children's Manifest Anxiety Scale (CMAS) or resort to the use of response sets such as acquiescence and social desirability.

The normal subjects consisted of 40 fifth graders taken from a regular classroom. The retarded subjects consisted of 29 children taken from intermediate special education classes.

Both groups of children were administered modified versions of the CMAS and Marlow-Crowne Social Desirability Scale (MCSDS). The above scales were modified to make them more applicable to the needs of this research. The CMAS was modifed to test for the effects of acquiescence and the MCSDS was given to assess the tendency to use social desirability response set. The MCSDS was correlated with the CMAS to determine if the scores on the CMAS were related to the tendency to use social desirability.

The results of this research indicated that retarded subjects' CMAS scores reflect the use of acquiescence and denial response sets. It is possible that random response sets were also used, but these were not tested. Examination of the individual protocols would infer that the use of response sets by the retarded subjects is a characteristic, consistent style of responding to test items which are probably too ambiguous for them to answer. The high social desirability scores obtained from retarded subjects were not felt to be valid because of the noted use of

acquiescence and denial by these subjects on the CMAS. It was felt that the MCSDS scores were also a reflection of acquiescence and denial and not a measure of the use of social desirability.

Normal subjects did not use acquiescence when responding to the CMAS. The relationship between their CMAS scores and MCSDS scores would indicate that the use of social desirability may result in lower anxiety scores on the CMAS. The higher anxiety scores obtained from normal girls as compared to normal boys was felt to reflect less use of social desirability by girls. Although normal boys obtained lower anxiety scores, their use of social desirability was significantly greater than that of girls. Therefore, the differences in anxiety scores between normal girls and boys may reflect the use of social desirability and not different anxiety levels.

This research would lead one to question the published reports of higher anxiety levels for retarded children and normal girls. The high anxiety scores obtained by retarded subjects may be the result of their use of acquiescence and denial, whereas the high anxiety scores obtained by girls seem to reflect their lower use of social desirability.

Conclusions

1. Inspection of protocols and the negative correlation obtained between original and reversed CMAS items (Table 2) would indicate that retarded subjects use acquiescence and denial response sets when answering items on the CMAS.

2. It appears that CMAS scores obtained from normal subjects may be free from the effects of acquiescence and denial.

3. Test data obtained from retarded subjects are likely to reflect the use of acquiescence and denial. For this reason, the social

desirability scores (MCSDS) of the retarded subjects were not felt to be a valid indicator of their use of social desirability.

4. Because of the significant negative correlation obtained by normal children between the CMAS and MCSDS, the CMAS is felt to reflect the effects of social desirability. It is inferred, because of the negative correlation, that normal children lower CMAS scores by using social desirability.

5. The higher social desirability scores obtained by normal boys in this research may explain their lower anxiety scores as compared to girls.

It is felt that further research is needed to determine if many personality differences attributed to sex, intelligence, etc., are not actually a reflection of the differential use of response sets. If personality tests are to be valid, the conditions which elicit the use of response sets and adequate controls for the effects of these sets must be found.

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APPENDIXES

APPENDIX A

The Modified Marlow-Crowne Social Desirability Scale

1. I never hesitate to go out of my way to help someone in trouble.
2. It is sometimes hard for me to do my school work if I am not encouraged.
3. I have never hated anyone.
4. I sometimes feel angry when I don't get my way.
5. I am always careful about the way I dress.
6. If I could get into a movie without paying and be sure I was not seen, I would probably do it.
7. Sometimes I have given up doing something because I didn't think I could do it.
8. No matter who I'm talking to, I'm always a good listener.
9. I can remember playing sick to get out of something.
10. I am always willing to admit it when I make a mistake.
11. I sometimes try to get even with someone who has hurt me rather than forgive them.
12. I don't mind telling the teacher that I don't know something.
13. I am always polite, even to people who are not nice to me.
14. There have been times when I felt like smashing things.
15. I would never let someone else be punished for something that I did wrong.
16. I have never been bothered when someone has different ideas than mine.
17. There have been times when I was quite jealous of someone else in the class.

18. I have almost never felt like telling someone off.

19. I have never felt that I was punished without cause.

20. Sometimes when people have bad luck, I think they are only getting what they deserve.

21. I have never said something just to hurt someone's feelings.

APPENDIX B

The Modified Children's Manifest Anxiety Scale

1. I get nervous when someone watches me work.
2. I am not nervous.
3. I blush easily.
4. I don't have bad dreams.
5. Others seem to do things easier than I can.
6. I don't get tired easily.
7. I have trouble making up my mind.
8. I don't often worry about things that could happen to my parents.
9. I get nervous when things do not go the right way for me.
10. I don't often do things I wish I had never done.
11. I worry about what my parents will say to me.
12. I don't worry when I go to bed at night.
13. I get angry easily.
14. I am not afraid of the dark.
15. I worry about what other people think about me.
16. I don't worry about how well I'm doing in school.
17. I have trouble swallowing.
18. It is not hard for me to go to sleep at night.
19. My feelings get hurt easily.
20. I don't worry about what is going to happen.
21. It is hard for me to go to sleep at night.
22. My feelings aren't easily hurt.
23. I worry about what is going to happen.
24. I don't have trouble swallowing.

25. I worry about how well I'm doing in school.

26. I don't worry about what other people think of me.

27. I am afraid of the dark.

28. I don't get angry easily.

29. I worry when I go to bed at night.

30. I don't worry about what my parents will say to me.

31. I often do things I wish I had never done.

32. I am not upset when things don't go right for me.

33. I often worry about what could happen to my parents.

34. I make up my mind easily.

35. I get tired easily.

36. I seem to do things as easily as others.

37. I have bed dreams.

38. I don't blush easily.

39. I am nervous.

40. It doesn't make me nervous to have someone watch me work.

VITA

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