



1968

## Expectancy Level Among Educable and Trainable Retardates

Ann H. McIntyre  
*Loyola University Chicago*

Follow this and additional works at: [https://ecommons.luc.edu/luc\\_theses](https://ecommons.luc.edu/luc_theses)



Part of the [Psychology Commons](#)

---

### Recommended Citation

McIntyre, Ann H., "Expectancy Level Among Educable and Trainable Retardates" (1968). *Master's Theses*. 2308.

[https://ecommons.luc.edu/luc\\_theses/2308](https://ecommons.luc.edu/luc_theses/2308)

This Thesis is brought to you for free and open access by the Theses and Dissertations at Loyola eCommons. It has been accepted for inclusion in Master's Theses by an authorized administrator of Loyola eCommons. For more information, please contact [ecommons@luc.edu](mailto:ecommons@luc.edu).



This work is licensed under a [Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 License](#).  
Copyright © 1968 Ann H. McIntyre

Expectancy Level among Educable and Trainable Retardates

Ann H. McIntyre

A thesis submitted to the faculty of the Graduate School of Loyola University in partial fulfillment of the requirements for the Master of Arts degree.

January 1968

## Acknowledgements

The author wishes to acknowledge the help of her advisor, Dr. Ronald Walker and the research psychologist at the Dixon State School, Dr. Rolland Metzger, as well as the staff and residents of the Dixon State School.

## Vita

The author was born in Chicago, Illinois on June 15, 1941. She attended grade school at Christ the King and high school at the Academy of Our Lady, both in the Chicago area. In the fall of '59 she entered St. Mary's College, Notre Dame Indiana as a liberal arts student. Upon graduation she was awarded a Bachelor of Arts degree with a major in Christian Culture and a minor in psychology. The following year she worked as a psychology intern at the Dixon State School for the mentally retarded while picking up the necessary courses for graduate school. In the fall of '64 she entered Loyola University as a graduate student in clinical psychology. She completed her classwork the following year while again working at the Dixon State School. During the school year of '66 - '67, she was employed as a school psychologist in the Rochester City Schools in New York State. At present she is working with the pediatric department of the university of Kentucky Medical Center on a project for children with medical and developmental problems.

## Table of Contents

Chapter One	Purpose	p. 1
Chapter Two	Review of the Literature	p. 3
Chapter Three	Method	p. 40
Chapter Four	Results	p. 48
Chapter Five	Discussion	p. 49
Chapter Six	Summary	p. 57

## Tbale of Tables

Table 1	Mean and Standard Deviation of age in years and IQ for each experimental group	p. 42
Table 2	Mean and Standard Deviation of the Initial Expectancy Level and the Total Expectancy Level for each experimental group	p. 49
Table 3	Analysis of Variance on the Initial Expectancy Level	p. 50
Table 4	Analysis of Variance on the Mean Total Expectancy Level	p. 51

## Chapter One Purpose

In this age of scientific progress and educational advancement it seems almost paradoxical that this period is also referred to as the age of mental retardation. Retardation is receiving more interest and attention than ever before. Interest is growing in all areas; etiology, diagnosis, training, treatment, prevention, social concern and in all these areas research is being done to provide the basis for a scientific study. One of the most important aspects being studied is learning, since a limited ability to learn is one of the chief characteristics of the retarded. Learning is also receiving increasing attention because of the difficulty in providing remedies or "cures" for the millions of retarded that are living today and the millions more that will be born soon. Etiology and prevention studies are basic to the problem but today people are recognizing the fact that this will take years of intense study and experimentation. In the meantime something must be done for the retarded that are part of society. Psychology and

education are working hand in hand to plan some program that will reach these individuals and enable them to use what potential they do have. Basic to this approach is the interest in learning and the techniques of teaching. Rotter's social learning theory is quite relevant to the areas of learning and teaching. It is concerned with the basic problem of how one learns, what causes behavioral changes and how behavior is modified and channeled into more rewarding domains.

It is the purpose of this work to take some of the basic principles of Rotter's theory and apply them to the retarded. Expectancy level is one of the concepts that is highlighted in Rotter's work. For it to be applicable it must be studied in itself and then with special groups such as the retarded. It must be isolated and studied in its interactions with other conditions and factors. This study works with expectancy level as it is found in the educable and trainable mentally retarded in both chance and skill situations and with reinforcements of success and failure.



## Chapter Two Review of the Literature

Rotter's Social Learning Theory (SLT) (1954) views learning in terms of behavior potential (BP) which is dependent on expectancy level (E) and reinforcement (RV). "Behavior potential may be defined as the potentiality of any behavior's occurring in any given set of reinforcements" (Rotter, 1954, p. 105). Behavior in this sense is a broad concept involving a response to a meaningful stimulus that can be measured and observed. It involves immediately the interaction of the person with his environment but it also includes specifically the interaction of the individual with his evaluation of himself and with the particular value of the task at hand. The formulation that has been made for such activity consists of  $BP_{x_1, s_1, r_a} = F(E_{x, r_a, s_1}, & RV_a)$ . The potential for behavior "x" to occur in situation 1 in relation to reinforcement "a" is a function of the expectancy of the occurrence of the reinforcement "a" following behavior "x" and the value of reinforcement "a" (Rotter, 1954, p. 110) where "s" stands for situation, "r" for reinforcement,

reinforcement.

In this present investigation the focus is on E and in particular its application to the retarded. According to SLT, "E may be defined as the probability held by the individual that a particular reinforcement will occur as a function of a specific behavior on his part in a specific situation or situations. E is independent of the value or importance of the reinforcement" (Rotter, 1954, p.107). E is then how an individual thinks he will do in a set situation. It is his personal anticipation of the outcome. Rotter does not claim E as an original concept (Rotter, Fitzgerald & Joyce, 1954). Hobhouse used the concept in 1901 in his confirmation-inhibition theory. Pavlov, Zener & Mower are said to describe E as a conditioned response or heightened anticipation, while Brunswick and Lewin are reported to use it as a probability phenomenon (Rotter, Fitzgerald & Joyce, 1954). A closer look at E in Rotter's framework reveals two aspects of it, generalized expectancy (GE) and situational expectancy (E'). One's present expectations become a composite part of his expectations stemming from past experiences and his evaluation of the

present situation. In this sense E is never based solely on the present situation for no task is ever approached without the background of past experience. The formulation for this is " $E_{s_1} = F(E'_{s_1} \text{ \& } GE)$ ". E is a function of the probability of occurrence as based on past experiences in situations perceived as the same ( $E'_{s_1}$ ) and the generalization of the expectancies for the same or similar reinforcements to occur in other situations for the same or functionally related behaviors (GE)" (Rotter, 1954, p. 166).

The other major construct in SLT is reinforcement value (RV). "The RV of any external reinforcement may be ideally defined as the degree of preference for any reinforcement to occur if the possibilities of their occurring were all equal" (Rotter, 1954, p. 107). RV is how good or valuable the goal appears to the individual. Looking into RV reveals a similar distinction as that found in E. It involves the present reinforcement value and the value of the reinforcements in the past. If the past has been filled with pleasant positive reinforcements the value of the present one will

be increased but if the past ones were on the negative side the present one will be perceived as less valuable. Thus one's past history becomes important and even a determining factor. The formulation for this process is  $RV_{a, s_1} = F(E_{R_a - R_{(b-n), s_1}} \& RV_{(b-n), s_1})$ . The value of reinforcement "a" in situation 1 is a function of the expectancies that this reinforcement will lead to the other reinforcements "b" to "n" in situation 1 and the values of these other reinforcements "b" to "n" in situation 1" (Rotter, 1954, p. 152) where "s" stands for situation, "r" for reinforcement, "b" to "n" for the number of other reinforcements.

In summary SLT revolves around these three concepts of behavior potential, expectancy and reinforcement values. As previously stated the focus in this paper is E, the question being asked is what determines or affects E. Several suggestions and hypotheses have been formulated. Perhaps the most popular factor is the effect of success and failure on E. What happens in terms of actual situations or tasks which appears to be the most

likely factor to affect one's E. Blackman and Kahn (1963) stated the case quite well when they said "the incremental effect of success and the decremental effect of failure on later goal setting behavior in normal subjects is already well established" (Blackman and Kahn, 1963, p. 751). Frank (1941), McGhee (1940) and Steisel and Cohen (1951) all agree with this generalized statement. Success increases E, while failure decreases E. Although this appears simple and clear enough further investigations have revealed that there are other factors that enter into the picture and while not negating the general effect they do influence it and make for some adjustments in the general principle.

One of the first concerns in applying SLT as an experimental model was the question of measurement. It was necessary to determine how E could be measured objectively for in actuality it is a subjectively held value. Rotter, Fitzgerald & Joyce (1954) worked with four types of measurement. All of the methods yielded similar

results so it was concluded that E could be measured in a variety of ways. In their study a ten point scale was used for rating what they thought they could make, another ten point scale was used for rating the probability of obtaining a specific score, a third ten point scale was used for rating the probability of making at least 20 and for other scores and the fourth scale was a nonverbal one involving betting two cents on a set score.

Rotter in his original formula stated that E and RV are independent variables. Hunt (1956) followed this lead and designed an experiment in which RV was held constant with E varied. He found that changes in goals or behavior were directly related to E with RV held constant. Thus from theory and experimentation E earns the right to be studied independently. Other advocates of the independent status of E and RV are Bell and Jamison (1956). They found that the probability of success or failure affects E but not RV. Lewis and Duncan (1957) support the general trend for they too were unable to find any relation between E and RV which would make them dependent on each other. In their work

they varied the amounts of RV but it had no effect on E. But this point does not remain uncontested for Jessor and Readio (1957) disagree since in their experimentation RV did affect E. But so far they are unable to find any systematic way to relate the amount of RV to E.

As the research around E continued additional factors have been discovered which influence BP by influencing its components E and RV. These include the various conditions that surround the experience of success and failure such as chance and skill conditions, spacing and massing.

In regard to chance and skill conditions Phares (1957 p. 339) stated "Any theory of personality employing a construct of E must be prepared to state the conditions under which it changes". One of these for Phares is the individual's categorization of the situation, his estimation of the amount of personal involvement in the task. With this aspect in mind as well as an awareness of the usual effects of success and failure, Phares hypothesized that the increase in E following success and the decrease in E following failure would be greater in skill

situations than in chance situations. The results show that skill situations produce larger and, more frequent changes in E than chance situations. This confirmed the hypothesis and was explained in terms of the greater amount of personal involvement in a skill situation than in a chance situation. Hyman (1956) in the same line of investigation varied the degree of personal involvement in the solubility of the task. Thus he created a step ladder approach with one end tending toward chance and the other skill with each intervening step advancing from one end to the other. He measured the difference in the situations by E and in actual performance. The results showed that the greater the solubility of the task was portrayed the greater was the tendency to alter one's responses. Conversely the less soluble the task appeared, the fewer the changes in the responses.

In James and Rotter (1958) an experiment was done that involved a change in the amount of reinforcement rather than the task conditions. They applied the concept of partial and 100% reinforcement to an E situation. Interestingly the results



did not support the usual partial - 100% phenomenon. In other experiments it has been found that partial reinforcement is less susceptible to extinction than 100% reinforcement. This time the partial reinforcement did not hold up as well as 100% in an E extinction process. There appeared to be some other force at work but this could not be identified.

Holden and Rotter (1962) made a supplementary report to the above mentioned **variables** of Phares and Hyman. They studied the effect of chance and skill on partial and 100% reinforcement. A non-verbal measure of E was substituted for the verbal one. But the results remained the same showing that 100% reinforcement again was less susceptible to extinction than partial reinforcement.

A slightly different combination was done by Sloven (1964). He examined the effect of chance and skill situations and the effect of reinforcement in a training period. The results indicated higher E in the skill situations for all amounts in the training period. A nonverbal measure of E, betting, was also used. This time there were no

changes in E for the chance and skill situations but there was a change related to the amount of success experience in the training period. Phares (1961,1964) has pursued another line of investigation that is the effect of spacing and massing on E. It was believed that such conditions would affect the composite forces of E, namely GE and E'. The general hypothesis stated and supported was that a delay period would serve to reduce the effects of success or failure occurring immediately prior to the delay when such reinforcement was contrary to previously experienced reinforcements. "Specifically a group receiving a series of negative reinforcements followed by a small number of positive reinforcements will show a decrement in E following a delay period, while a comparable no delay group will show a rise in E at the same point" (Phares, 1964, p. 391). The results supported such a position.

A different aspect was studied by Marks (1951) in his investigation of the attractiveness and desirability of the task as they affect E. He planned a dual experiment by adding to the desirability factor the probability of E as seen by children.

He found that both desirability of the task and the greater the probability of success affects E. Thus it was suggested that E is a factor that is developed early in life and is responsible for the behavior of even children. Gebhard (1948) spent considerable time in pursuing the same relation of desirability and attractiveness of the task to E and performance. She found that general attractiveness is determined not only by the past experience of success and failure but also by the E of future success and failure. It seems that a vicious circle has been created, a task is judged attractive if one's E of success is high and when a task is attractive the E of success is higher than when it is not attractive.

Irvin (1953) tried the same tactics with adults. His results were similar but of less magnitude. But it still could be said that adults respond to the desirability factor and certainly to the probability factor.

Feather (1963) varied the pattern to study the different rates of success and failure. This time the measurement was not made in terms of extinction

but rather with the actual level of E. Three groups were set up with one receiving 80% success, one 50% success, and the third 20% success. The results showed an increase in E with an increase of success. This increase was in proportion to the percentage of success experienced.

Jessor (1954) addressed himself to the question - under what conditions does a change in E in a given task tend to generalize to another situation. He used Rotter's principle of functional relatedness which states that responses are related when they have led in the past to the same or similar goals. The present design set up four tasks with different degrees of relatedness. The results supported the hypothesis that it is possible to predict the amount of generality along the dimension of functional relatedness.

In all of the above experiments the focus has been on E as measured by stated verbal or nonverbal E in response to a specific question. Rotter questioned the implied assumption that one's stated E is always their actual E. He suggested that perhaps it was more a matter of wish fulfillment response.

Crandall, Solomon & Kellaway (1956) following this direction set up an experiment with a premium on an accurate E level. They varied the strength of the success. They found that the probability of success as suggested by the examiner was the most important determinant of E statements and as this probability increased so did E. Their data offered some opposition to the independencies of E and RV. They found that RV was a determinant of E and that a significantly higher E was set with higher reinforcement values.

In exploring the question, what affects E, the conditions surrounding the task are not the only variable to be considered. As always there is a human variable, a personality factor to be considered. This can be seen graphically in experiments in which all the conditions are held constant and still unexpected differences are found in E. It must be posited in such a case that success and failure do not affect all individuals the same even though the task, conditions and reinforcement values are the same for all. Sears in 1940 stated "In work on the concept of the level of aspiration there has been

shown wide individual differences...Little work has been done on isolating variable associated with individual differences in the level of aspiration. Little attention has been given to the problem of the meaning of the task to the individual subject. Differences exist in the individual perception of the task in relation to the self, some become ego involved, others don't. A child can't succeed or fail in an activity that has no ego involvement" (p. 498).

In support of these statements Sears experimented with the hypothesis that a factor in the level of aspiration pattern for a given task would be the characteristic past experiences of the subject. This could be translated in terms of Rotter's GE, the generalized expectancy developed from reinforcement in other situations and generalized to the present (Rotter, 1954). Sears suggested that children who had experienced less failure in the past would react differently than children who had experienced more failure. The results supported such conclusions and in turn showed that self

confident children, those with past experiences of success, react differently than those with less confidence. Thus the probability variable of the degree of confidence was significant in determining E.

The largest area of investigation in personality variables revolves around the self concept. What a person thinks of himself affects all his behavior to some extent but it appears to affect E to a greater extent. Silverman (1964) reviewed several of the theories of self concept in relation to E. He concluded that high and low self esteem persons set different patterns of response to success and failure. In general high esteem people are more responsive to a stimulus which is self enhancing and less responsive to that which is devaluating. Persons with low self esteem seem to respond in the opposite manner. The actual experimentation in view of these hypotheses yielded fairly clearcut results but the matter of interpretation was not quite clear. Working from Cohen's viewpoint (1959) Silverman concluded that it is a question of the defensiveness of the

of the personalities with high self esteem people being more defensive. In the framework of Stotland (1962) it becomes a matter of the cognitive balance which is the main factor in choosing and limiting intake. But regardless of the interpretation, the fact of the influence of self concept on E seems well established.

In exploring the influence of the self concept on an individual's E and performance several theories have added a need for cognitive consistency or as it has been referred to above cognitive balance. The idea is that a person has a need to perform in accord with his expectations, when he does this he experiences comfort but when he doesn't he feels discomfort and strives to change. In simple self concept theory the key idea is that a person with a high idea of himself would have a high E and thus would have a greater potential for achievement all other things being equal. A person with a poor concept would have a low E and would have a greater chance of performing poorly. In a theory of cognitive consistency or dissonance the question asked is what happens when one's performance is



out of line with one's self concept or E. Aronson and Carlsmith (1962) followed this theory and suggested that a person with a high self concept who fails would feel as bad as a person who has a poor self concept and succeeds. They hypothesized that performance inconsistent with self concept would arouse dissonance and cause change. The results supported the hypothesis by revealing greater changes in the responses from those whose performance was inconsistent with their self concept than those whose performance was consistent. This was most graphically seen in those with poor self concept who did well but still showed a greater amount of change than those with a poor self concept who did poorly.

Kaufmann (1963) supported a theory of cognitive balance. His research added another factor to the picture, that of relevancy of the task to the individual. Relevancy appeared directly related to E. His results further supported Rotter's theory that high goal value is not related to E. In analyzing the results Kaufmann offers three alternatives for a person experiencing cognitive

inbalance; he could lower his E, reduce the concept of the relevancy of the task, or increase his appreciation of the level of performance reached. In this process Kaufmann states that a self concept has a definite role in determining a person's response to failure but he questions the idea that a change in E is always involved. Kaufmann's work has been replicated successfully by Sampson and Sibley (1965) but no further delineation of the specific process or relationship of these alternatives was offered.

Some of the research in personality factors involved in E has taken a more specific line. Tempono (1964) has studied the personality types which he terms sensitizers and repressors. Repressors are those people who in the face of threatening material are reluctant to admit their faults and engage in any self devaluation. They experience more anxiety as a result of their faults and the denial of them. In the same threatening situation sensitizers are ready to admit their faults and initiate devaluation. As a result they experience less anxiety in a failure situation. The results showed that under success repressors have a significantly higher threshold for critical stimuli

than sensitizers. Rychlak and Eacker (1962) also related an anxiety factor to E. They hypothesized that holding RV constant, subjects reflecting manifest anxiety would show greater change in E than subjects not found to be so anxious. The results supported their thesis. Feather (1965) related E to one's need for achievement. Thus in a situation where achievement motive has been aroused E is in proportion to an individual's need for achievement. But this seems to be true only in the initial situation while the task is novel. After experience with it the person's actual performance determines his E rather than his need for achievement. Another study concerning achievement was done by Moulton (1965). He supported atypical shifts in achievement oriented situations that involve subjects with high failure avoiding tendencies and low success striving tendencies. This work was confirmed by the work of Wachs and Cromwell (1966).

Welner (1963) carried this investigation of personality factors into whole personality patterns, specifically he considered E in the light of

personality disturbances. He expanded the work of Phares (1957) with chance and skill situations. He hypothesized that even with conditions such as chance and skill, personal categorization of the very conditions would affect the results. The groups of personality disturbances that he used were hospitalized paranoid patients and depressed patients. He hypothesized that paranoid subjects would tend to externalize their failure by categorizing a failure task as a chance one while a depressed subject would internalize his failure by categorizing the task as one involving skill. The opposite results were posited for a success experience. The results did not support the hypothesis. The categorization of a task as involving chance or skill was more a function of the degree of success or failure rather than the defense of the patient. Both groups as well as a college group tended to list a task as a chance situation when they had failed and needed a defense for their failure.

Nereditch (1963) followed the same lead and investigated the reaction of hospitalized psychotics and a nonhospitalized group of normals on a

temporally associated task. The psychotic group were found to be more affected by failure in a temporally associated task than the nonhospitalized group. This was interpreted as a general loss of the adaptive response in psychotics. They appeared unable to discriminate one situation from another. Rotter again would see this in terms of GE, as it could be assumed that psychotics having failed to adjust to society would have a greater past experience of failure than a nonhospitalized group. Turbiner (1964) tried the same approach using hospitalized schizophrenics, hospitalized normals and non-hospitalized normals. He used performance as a measure rather than E. He found that performance was adjusted in accord with experience as it increased with success and lowered with failure. This adjustment occurred more frequently and rapidly for the normals than for the schizophrenics. In SLT this would indirectly suggest a similar change in E', which would then cause the change in BP or performance.

In speaking of E in terms of personality factors, it must be remembered that just as conditions of the situation do not act alone but are interacting with personality factors, so personality factors do not stand alone but are interacting with social factors. The concentration in E has been on a person's internalized anticipation of the outcome of the situation. Another aspect a little more subtle is the expectation of the examiner for the subject, which would seem to have an affect on the subject's own E. This would be especially applicable in a situation involving a one to one relation and a verbal statement of E. It is not unlikely that a subject would give a wish fulfillment E or an approval seeking E rather than an actual E. Leventhal and Perloe (1962) approached this problem in a consideration of the person's self concept and his openness to influence, his persuasibility. It has been suggested that low self esteem people consider themselves less able than others and as a result are thought to be more open to influence

while high self esteem people think of themselves as superior and are therefore closed minded. This would be in line with Cohen (1959) and others who believe that a high esteem person is more defensive than a low esteem individual. The results of the Leventhal and Perloe research failed to support their claim since the high esteem people were found to be more readily influenced than the low group. But this finding was not entirely related to the amount of self esteem for it occurred only when the examiner possessed personality characteristics dissimilar to the subject. This leaves the question of the social influence still open but it does point to an interaction of the personality factors between the subject and the experimenter.

Stotland and Hellner (1962) followed the same line of investigation in the study of the role of identification in E setting. They found that a person with low self esteem identified and generalized more easily in a positive relation but not in a negative one. Two factors other than esteem level were pointed out as significant; namely

the level of defensiveness of the person and the amount of involvement in the specific traits used in the task. Thus once again the amount of influence on E seems to be determined by several cross currents rather than one set pattern.

In expanding the consideration of the influence of the examiner, Stotland, Thorley, Thomas, Cohen and Zander (1957) studied the social factors of the group. Group influences on E according to them depends on the attractiveness of the group and the personal susceptibility of the individual. The specific question asked was what condition in a group may influence a person's evaluation of his performance after success or failure. They hypothesized that there were two conditions that applied. How relevant the task was to the group that was being used as a social influence, for example baking to bakers, or flying to pilots. How acceptable the group that was being used as a social influence was to the individual involved, such as a group of politicians to a political science student, doctors to a nurse. The research tended to support the hypotheses by



showing that the greater the relevancy of the task to the group used as a model, as well as the relevancy of the group to the individual involved in the task, the greater was the influence.

Widening this concept of group pressure Mark (1951) considered the effect of socioeconomic groups on children. It was hypothesized that certain general attitudes would be formed in a specific environment and from this certain E's would be incorporated possibly in terms of GE. The experiment did not support the hypothesis for no difference could be found between the various socioeconomic levels. Social factors have also been considered by Chapman and Volkman (1939) in an earlier piece of literature on the level of aspiration which seems applicable. The fact is that knowledge of the achievement of the group when the group's status and ability are related to the individual affects his level of aspiration. The data showed that this effect existed only prior to experience with the task but not after it. Taking this social approach, Mischel (1958) experimented with changes in E due to public vs.

private setting. He suggested that there would be fewer changes in E in public settings than in a private one but that the E in public situations would generally be set lower. The data supported these contentions and were interpreted in terms of the amount of investment or commitment in each of these situations. De Soto, Coleman & Putman (1960) found an interesting phenomenon. It seems that subjects when giving an E for others matched the E with the amount of previous success, but when giving an E for themselves they overpredicted their own achievement. The higher the actual amount of success, the less was the over prediction. Thus it seems that subjects live by a double standard, one E for others and another for themselves.

In this paper E is being studied as it relates to the mentally retarded. A chief characteristic of the retarded is their limited ability to learn (Cromwell, 1963). With this defining characteristic in mind, a learning theory has special merit in both research and practice for the retarded. In work with the retarded the concept of E remains essentially the same. The conditions that affect

E in groups of normals seem relevant to the retarded subjects. What seems to differ is the interaction of the personality variables with the different conditions. Just as various interactions have been posited as a result of the personality factors in normals, repressors - sensitizers, high - low self esteem groups, and in personality disturbances of psychotics, paranoids, depressed patients and schizophrenics, certain interactions are observed in the responses of the retarded. A significant factor appears to be the personal categorization of the event or the individual's evaluation of the situation. It was previously suggested that a person's response may be fashioned after his defenses rather than in view of the objective situation. The question then must be asked how does the retarded subject categorize an event, what defense does he use, what cognitions or awareness does he possess.

One of the lines of theory and research has led to the conclusion that there is no basic difference between the mentally retarded and the normal but rather a question of a different rate of development.

Thus one would not expect any different reaction than that which is found with normal subjects. Bialer (1958) studied the conceptualization process of success and failure in normal and retarded children. He showed that success and failure do not have immediate meaning for a child but rather develop meaning with maturation. At first a child responds only to pleasure and pain. Everything is viewed as externally controlled, out of his domain. It is necessary for the child to develop some idea of internal control before he can experience success or failure. Bialer hypothesized that success and failure is a function of mental and chronological age with the mental age the more relevant. He has suggested in addition that there would be some behavior variables independent of mental and chronological age that would influence the conceptualization process. His research supported the first two hypotheses but not the third. Thus Bialer concluded that mental and chronological age were the only significant factors and that retardates do not differ qualitatively but just quantitatively.

Their development is basically the same only proceeding at a slower rate.

Bialer also did some work with Cromwell (1960) on task repetition in the retarded. They wanted to relate mental age development to the choice of a success or failure task. They found again the same pattern in the retardate as in the normal. The younger children picked the success tasks while the older ones selected the failure ones. The discriminating factor appeared to be the level of intellectual and social development rather than any basic personality factors.

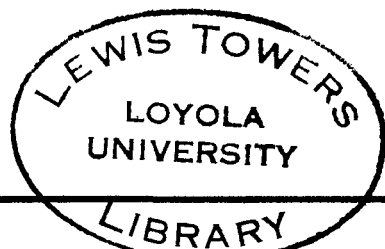
Bobroff (1960) also explored the developmental process in terms of Piaget's theory of ego development. In both theories the maturation is thought to be dependent upon the genetic growth of perceptual ability. The child's view of his environment progresses from subjectivity to objectivity, from autism to realistic awareness of the self and others. It also depends upon the differentiation of self. Bobroff outlines four stages of development as a result of his research. The first stage occurs in the normal child at approximately the age of six

and in the educable child around eight and is characterized by impulsiveness, immediate gratification. The next level is two years later, eight for the normal and ten for the retarded child. In this phase the child does not perceive chance and error in human situations but rather thinks of things as happening by chance and independent of purposeful acts. Two years later stage three represents some giving up of immediate gratification for long term goals. Finally at the age of twelve and fourteen there is some cognition of cause and effect as occurring within themselves. In this analysis it can be seen that Bobroff agrees with Bialer and his data. They believe that retarded children follow the same pattern and sequence of development as normal children. It should be noted that all of Bobroff's subjects were retardates living in the home and all those with behavioral and physical problems were excluded.

Davids and White (1958) predicted that since the mentally retarded patient has the same history of failure as the psychotic one they would show greater decreases in the level of aspiration after

failure than the normals. In this they agree with Moss (1958) but not with Cromwell (1961). Blackman and Kahn's (1963) results in this area did not substantiate these propositions. No difference was found in the level of aspiration under success or failure between normals and retardates.

Cromwell (1961) in his opposing position hypothesised that the retarded would have more experience with failure and negative reinforcement than the normal child but as a result of this he would have a lower E (Heber, 1957) and would be less aroused by the failure since he is expecting it anyway (Gardener, 1958). The effect of such mental sets in the retarded is that having failed on a task they are less likely to increase their effort and more likely to withdraw from the situation. If the retardate experiences success followed by failure he would experience more failure than the normal due to his past experience and expectations of failure. The general conclusion by Cromwell is that these patterns because of their



effect on E lower the social and intellectual effort below what would be expected on the basis of their ability. Gardener again in 1966 experimented with failure in retardates and normals. As before he hypothesized that failure would have less effect on the retardate. This proposal was supported and thus has become an important factor in the educational plans for this group. It would seem that failure is not a facilitating factor for the retarded although it is often used with normal children.

In another article Cromwell (1959, p.333) stated "It is reasonable to assume that the typical retarded child because of his limited ability has met with more failure during his life than has the typical normal child. Therefore the mentally retarded have a lower generalized expectancy for success". This background of failure is the generalized expectancy factor in Rotter's scheme. Cromwell suggested that it is most applicable in novel situations and less so as the task becomes more familiar to the child. As success is experienced it would add to situational expectancy



and tend to overcome the effects of the generalized expectancy.

Wachs and Cromwell (1966) put it another way. They believed that the retarded would be a failure avoider (FA) while normal children would be success striving (SS). The FA would give up success in order to avoid failure while a SS would risk failure to gain success. Their hypothesis was that the retarded defend against failure more than the normal. The data supported this by showing greater amounts of defensive behavior. Bialer and Cromwell (1965) followed these same constructs of FA and SS as did Moss (1955). They hypothesized a decrease in the behavior of the FA after failure while the SS would increase behavior after failure. The data tended to support such a division in personality types but it also suggested additional data. Actually both groups FA and SS increased performance after failure but SS increased their performance significantly greater than FA. There was some question that FA and SS were related to mental age development since the FA group had a significantly lower mental age than the SS

although the IQ levels were the same. But still this is not conclusive since the groups overlapped in mental age. An added value of this work is that it calls into question some of Gardener's work (1958) which suggested that failure had a motivating effect only on normal children. In this experiment failure was found to be at least a moderate motivating force for all groups.

Starkman and Cromwell (1958) have offered some question as to whether the retardate is actually responding to the expectancy statements. On the basis of their data they challenged the assumption that a subject's verbal behavior is always a response to internal cues and always represents expectancy levels. They would say that the retardate responds more in terms of wish fulfillment rather than expectancy level.

Zigler, Hodges & Stevenson (1958) studied the effect of the examiner on retardates. They examined the expectancy level and performance in support and nonsupport situations. They hypothesized that support has a reinforcing effect which results in an increase in performance

independent of the expectancy factor. They further stated that retardates found greater reinforcement value in interaction with adults, particularly when institutionalized. The results showed no difference between retardates and normals in a nonsupport situation. But under support the responses of the retarded were more variable and lengthier than the responses of normals. Thus retardates do seem more susceptible to outside influence than the normal population.

Environmental conditions must be studied with the retardates as well as with the normals. Rosen, Diggory and Wellinsky (1966) investigated the differences between the institutionalized and noninstitutionalized subjects. They found, as the literature suggested, that institutionalized retardates are more optimistic and self confident. As a result they set higher expectancy levels and perform better.

In view of the purpose of this study and the literature that has been reviewed several specific questions were set aside for experimentation. The basic issue was the now well established fact

that retardates do respond differentially to success and failure. Added to this was the question of whether they could respond differentially to chance and skill conditions with success and failure experiences. A further question asked, based on Bialer and Cromwell (1965), was whether there were any noticeable differences in the responses of the retarded in terms of their intellectual level and sex. The question that is being posed is whether the expectancy levels based on perceptions of success and failure under the conditions of chance and skill differ with different degrees of retardation and sex.

Specifically it was hypothesized that: one, the educable group will show significantly greater changes in expectancy level under all four conditions of chance, skill, success, and failure than the trainable group; two, success in both skill conditions and chance conditions will raise the expectancy level in both groups; three, failure will lower the expectancy level in both groups under conditions of chance and skill; four, success in the skill condition will raise

the expectancy level in both groups more than success in the chance condition; five, failure in the skill condition will lower the expectancy level in both groups more than failure in the chance condition.

### Chapter Three Method

The method for testing the hypotheses consisted of using a group of mentally retarded subjects who responded to a specially designed task while stating their expectations of success or failure and receiving a predetermined schedule of reinforcement.

Subjects. The subjects were 160 residents of the Dixon State School, male and female with a chronological age range of 16 to 50 and an IQ range of 40 to 79. The residents were chosen on the basis of age, IQ and cottage. The cottages were individual buildings in which the residents lived. The composition of each cottage was decided on the basis of IQ, age, physical and emotional characteristics. No exclusions were made due to etiology or multiple handicaps except for blindness and deafness. The subjects were first divided into groups on the basis of sex and IQ. The educable (EMH) group was defined as those with IQ's between 60 and 79 and the trainable group (TMH) with IQ's between 40 and 59. A further grouping was made randomly with half the

subjects assigned to a success schedule and half to a failure one. The final division was also random and divided the subjects into chance and skill conditions. Sixteen groups resulted with ten subjects in each group: namely, Success chance educable male (SCEM); Success chance educable female (SCEF); Success chance trainable male (SCTM); Success chance trainable female (SCTF); Success skill educable male (SSEM); Success skill educable female (SSEF); Success skill trainable male (SSTM); Success skill trainable female (SSTF); Failure chance educable male (FCEM); Failure chance educable female (FCEF); Failure chance trainable male (FCTM); Failure chance trainable female (FCTF); Failure skill educable male (FSEM); Failure skill educable female (FSEF); Failure skill trainable male (FSTM); Failure skill trainable female (FSTF). Table 1 gives the mean ages and IQ's contained in each of the sixteen groups plus the standard deviations for each.

Test Material. The test material consisted of ten series of picture cards, five cards in each series and four pictures on each card. The

Table 1

Mean and Standard Deviation of age in years and  
IQ\* for each experimental group.\*\*

Group	Age		IQ	
	Mean	S.D.	Mean	S.D.
SCEM	24.0	5.57	70.1	6.16
SCEF	27.7	14.10	68.0	6.16
SSEM	24.3	8.12	69.8	6.31
SSEF	26.0	7.35	69.2	5.82
FCEM	26.9	13.40	69.2	6.75
FCEF	28.6	11.20	67.4	4.73
PSEM	24.6	10.50	66.6	5.23
PSEF	28.0	6.63	64.0	2.53
SCTM	28.6	8.89	49.8	4.9
SCTF	23.8	6.93	46.9	3.61
SSTM	21.2	4.00	47.5	5.66
SSTF	26.2	10.2	48.7	6.0
FCTM	32.6	6.32	48.5	4.8
FCTF	22.1	8.11	48.9	7.21
FSTM	31.2	11.0	47.0	4.52
FSTF	25.9	7.62	50.9	7.20

\*IQ determined by Stanford Binet LM and WAIS full scale

\*\* N = 10 in each experimental group



pictures were selected from a box of picture flash cards originally used to illustrate simple vocabulary words such as dog, boy, apple, etc. The pictures were sorted into groups of four on the basis of having as little obvious relation or similarity to each other. This sorting was done to help insure the effectiveness of the chance and skill instructions. It was thought that if there were a definite relationship among the pictures such as two animals or two food items etc., the instructions stating that there was no order or pattern in the cards would be negated. On the other hand in the skill instructions it was believed that even neutral stimuli would lend themselves to relationships and patterns as it is a natural process for man to associate and relate in some way things perceived together.

Pre-testing was done on all 50 cards to see if neutrality of stimuli had been achieved. The cards were presented to a group of subjects male and female with a chronological age range of 8 to 12 and IQ range of 40 to 79. They were asked to select for each card the two pictures that belonged together. The results supported the contention of

neutrality.

Instructions. In the regular test task the instructions given to the subjects consisted of asking them to select the two pictures that belonged together. The chance and skill conditions were set by verbal instructions. The chance group was told that this is a game which involved only guessing, that there was no specific order or pattern to the pictures. The skill group was told that this was a test, that they should be able to figure out which two pictures belonged together, and that they should look for clues and a pattern in order to choose the right pair.

The specific instructions were as follows:

Chance Group. "This is a game I want you to play with me. I am going to show you some pictures and I want you to guess which two pictures go together. There's no special way to know which two belong together, this is just a game and all you have to do is guess." (Experimenter placed the five cards face down on the table.) "Now here are the

five cards in the game, first tell me, how many do you think you'll be able to guess right." (Experimenter recorded the number.)

"Okay now let's guess." (The experimenter stated before each additional series.)

"Now let's guess again, how lucky do you think you are going to be, how many will you get right this time."

Skill Group. "This is a test I want you to do for me. I am going to show you some pictures and I want you to figure out which two pictures go together. Pay close attention to the pictures and see if you can pick up the clues which tell you which two go together. You should be able to figure out which two go together." (Experimenter placed the five cards face down on the table.)

"Now here are the five cards in the test, first tell me, how many do you think you'll be able to work out." (Experimenter recorded the number.) "Okay now pick out the two that really go together." (The experimenter repeated before each additional

series.) "Now let's try that again, how many do you think you'll figure out this time. Okay now pick them out."

The stated expectancy levels were measured after the instructions setting the conditions were given but before the first series of pictures were presented and then before each proceeding series. In asking for E the cards were placed face down and the subjects were asked to show how many they expected to get right. The level was recorded on a six point scale, 0 to 5. This questioning for E was done prior to each series of cards thus yielding ten E scores for each subject.

The reinforcement given was in terms of success and failure. This was predetermined by the experimenter with half of the subjects receiving 80% success and the other half 80% failure. A schedule of reinforcement was set up in which the 80% success group received failure on the fourth and seventh trials. Both groups received success on the last trial for that no longer had an effect on the stated E. The reinforcement was given in general terms rather than in specific degrees. When

unsuccessful the subjects were told that they did not make their goal, i.e. that they had failed to achieve the set number. When the experimenter was asked how many they did get right or wrong, he responded simply that they had or had not made their goal, no set number was ever given. This was done to insure a general feeling of success or failure rather than a more definite idea of this or that much success or failure.

## Chapter Four Results

The data were tabulated for the mean initial expectancy level as found for each of the ten groups and for the mean total expectancy level resulting from the ten trials. Table 2 contains the mean and standard deviation of the initial and total expectancy levels for each group. An analysis of variance was run on both sets of data. Table 3 presents the results of the analysis on the initial expectancy level and Table 4 for the total expectancy level. The first of these analyses resulted in no significant differences or interactions in any of the groups. The second analysis showed significance between the reinforcement groups and for the total interaction.

Table 2

Mean and Standard Deviation of the Initial Expectancy Level\* and the Total Expectancy Level\*\* for each Experimental Group\*\*\*

Group	Initial		Total	
	Mean	S.D.	Mean	S.D.
SCEM	3.9	1.76	44.7	7.5
SCEF	3.4	1.69	36.2	12.6
SCTM	3.9	.76	35.6	13.3
SCTF	2.9	1.70	37.1	10.8
SSEM	3.2	1.66	35.4	13.9
SSEF	3.4	2.21	33.6	15.4
SSTM	4.4	.8	42.5	8.5
SSTF	3.2	2.18	36.9	11.4
FCEM	3.4	1.57	20.3	15.1
FCEF	3.4	1.55	33.0	11.5
FCTM	4.0	1.42	37.5	10.1
FCTF	3.8	1.25	26.7	10.8
FSEM	3.7	1.19	30.2	13.0
FSEF	3.5	1.80	20.2	11.5
FSTM	4.1	1.22	33.1	14.3
FSTF	3.7	1.27	36.1	11.8

\*Determined by subject's initial statement in a given range of 0 - 5.

\*\*Determined by subject's collective statements for all ten trials with a range of 0 - 50.

\*\*\*N = 10 for each experimental group.

Table 3

Analysis of Variance of the Mean Initial  
Expectancy Level

Source	Sum of Squares	Degrees of Freedom	Mean Squares	F
Reinforcement (R)	1	1	1	.38
Condition (C)	0	1	0	0
Degree (D)	3	1	3	1.15
Sex (S)	7	1	7	2.69
RC	1	1	1	.38
RD	1	1	1	.38
RS	2	1	2	.77
CD	1	1	1	.38
CS	0	1	0	0
DS	3	1	3	1.15
RCD	2	1	2	.77
RDS	1	1	1	.38
CDS	1	1	1	.38
RCDS	0	1	0	.38
Error	377	144	2.6	
Total	400	159		



Table 4

Ananalysis of Variance of the Mean Total  
Expectancy Level

Source	Sum of Squares	Degrees of Freedom	Mean Squares	F
Reinforcement (R)	2633	1	2633	15.97*
Condition (C)	6	1	6	.03
Degree (D)	636	1	636	3.86
Sex (S)	238	1	238	1.45
RC	33	1	33	.20
RD	472	1	472	2.87
RS	53	1	53	.32
CD	439	1	439	2.05
CS	39	1	39	.24
DS	11	1	11	.07
RCD	72	1	72	.44
RCS	64	1	64	.39
RDS	212	1	212	1.22
CDS	143	1	143	.87
RCDS	1515	1	1515	9.18*
Error	23755	144	164.97	
Total	30526	159		

\*Significant at the .01 level

## Chapter Five Discussion

The results supported two of the hypotheses; namely, success raised the expectancy level for all groups and failure lowered it in all situations. The data did not support the remaining hypotheses, that is the educable and trainable groups did not differ significantly, as success in the skill conditions did not raise the expectancy more than success in the chance condition, nor did failure in the skill condition lower the expectancy more than failure in the chance condition.

The results in Table 3 show that all groups after hearing the initial instructions but prior to actual experience with the task set similar expectancy levels. Thus it was concluded that any difference found in the course of the experiment could be attributed to factors within the experiment itself rather than existing in the groups prior to the experimental conditions.

It has been stated that failure can not be perceived as failure until a person has developed some sense of inner control, that is, until he feels

that he is responsible for what happens (Cromwell, 1963). Bialer (1958) traces the development of children from domination by outside forces to some measure of inner control. Cromwell (1963) and others applied this developmental pattern to the retarded and suggested that they have the same growth process as normals only occurring at a slower rate. Others disagree with this concept and state that retardates are not capable of an awareness of inner control but rather perceive all events as occurring without their control.

In this experiment success and failure conditions were set up to see if retardates would respond differentially to them. Chance and skill conditions were also set up to try to force an internal and external control situation on them. This differs from the internal and external control that arises spontaneously from within but still it was thought that if the retardates could respond differentially to the two situations they would be demonstrating some inner control.

In analyzing the results the significant difference in the success and failure scores

suggested that the retardates have some perception of the different situations. If an understanding of failure involves a recognition of inner control than it can be said that the retardates do have an understanding and awareness that they are responsible for their actions.

The lack of significance in the chance and skill conditions does not disprove the ability to discriminate internal and external control situations but it does not give the additional support that was hypothesized. It does point out that retardates did not differentiate chance and skill conditions as set by verbal instructions with neutral tasks. Again several factors need to be investigated in order to fully understand what took place - did the subjects listen to the instructions, did they understand them, did they respond to inner drives rather than the actual demands of the situation. It is difficult to answer these questions with surety, this demands more research. One possibility is that the nonverbal cues outweighed the verbal ones. Another suggestion is that the desire of the subjects to do well was so strong

that the fact of whether the task was dependent on their ability or not made little impression. In general the subjects appeared to be too ego involved to react discriminately to the specific instructions. Although no real pressure was applied, the one to one situation, the list of names, the past experiences with testing and with psychologists all exerted a subtle pressure. The general feeling in the institution is that testing or even talking with the psychologist is done to see if the resident can leave the institution to go home, or to a nursing home or a sheltered workshop. Thus even though an attempt was made to separate this task from the formal testing situation (the testing was done on the cottages rather than in the psychology department, it was conducted in off hours and on the weekends rather than during the workday and an effort was made to give the testing an informal atmosphere) it may not have been successful.

The degree of retardation did not prove to be a significant factor. The results came very close to achieving significance at the .05 level but it

is not advisable to interpret this as anything other than chance. It would seem that IQ level alone is not enough to cause a change in performance. It is suggested that other factors may have to be taken into account along with IQ, such as school experiences, home life, personality factors, degree of intellectual and social awareness.

The fact that there was no difference between the sexes points out that the task is a sex neutral one. It also suggests that the differences that exist in expectancy level cannot be traced back to a difference in sex. It would seem further that an investigation of personality characteristics on the basis of masculine and feminine attributes would prove fruitless.

## Chapter Six Summary

Rotter's Social Learning Theory involves two main concepts expectancy and reinforcement value which in turn produce behavior potential. This investigation was an attempt to expand this theory to a retarded population. It involved the effect of success and failure in chance and skill situations for the educable and trainable populations. The specific hypotheses were: a) that the educable group would show greater changes than the trainable one, b) success would raise the expectancy level, c) failure would lower it, d) success in the skill condition would raise it more than in the chance condition, e) failure in the skill condition would lower it more than in the chance condition. The experiment was conducted on 160 retardates. Significance was found only in the reinforcement group, that is, success raised the expectancy level while failure lowered it. The other factors did not make a significant difference in the stated levels of expectation.

## Bibliography

- Aronson, E. & Carlsmith, J. Performance expectancy as a determinant of actual performance. J. abnorm. soc. Psychol., 1962, 65, 178-182.
- Bell, R. & Jamison, N. Effects of the value of reinforcement upon E statements in gambling and achievement tasks. Percept. mot. Skills, 1965, 20, 27-32.
- Bialer, I. Conceptualization of success and failure in mentally retarded and normal children. J. Pers., 1958, 26, 106-122.
- Bialer, I. & Cromwell, R. Task repetition in mental defectives as a function of chronological and mental age. Amer. J. ment. Defic., 1960, 65, 265-268.
- Bialer, I. & Cromwell, R. Failure as motivation with mentally retarded children. Amer. J. ment. Defic., 1965, 69, 680-684.
- Blackman, L. & Kahn, H. Success and failure as determinants of aspirational shifts in retardates and normals. Amer. J. ment. Defic., 1963, 67, 751-755.



- Bobroff, A. The stages of maturation in socialized thinking in the ego development of two groups of children. Child Developm., 1960, 31, 321-328.
- Chapman, D. & Volkman, J. A social determinant of the level of aspiration. J. abnorm. soc. Psychol., 1939, 34, 255-228.
- Crandall, V., Solomon, D. & Kellaway, R. Expectancy statements and reinforcement values. J. Pers., 1965, 24, 192-203.
- Cromwell, R. A methodological approach to personality research in the mentally retarded. Amer. J. ment. Defic., 1959, 64, 333-340.
- Cromwell, R. Selected aspects of personality development in mentally retarded children. Exc. Child, 1961, 28, 44-51.
- Cromwell, R. A social learning approach to mental retardation. In Norman Ellis (Ed.), Handbook of mental deficiency. New York: McGraw-Hill, 1963, 41-91.
- Dauids, R. & White, A. The expectancy of success and failure and social facilitation on the level of aspiration in emotionally disturbed

- and normal children. J. Pers., 1958, 26, 77-93.
- DeSoto, C., Coleman, E. & Putnam, P. Prediction of sequences of success and failure. J. exp. Psychol., 1960, 59, 41-46.
- Feather, N. The effect of differential failure on expectancy of success reported anxiety and response uncertainty. J. Pers., 1963, 31, 289-312.
- Feather, N. The relationship of expectations of success to need for achievement and test anxiety. J. Pers. soc. Psychol., 1965, 1, 118-126.
- Frank, J. Recent studies of the level of aspiration. Psychol. Bull., 1941, 38, 218-226.
- Gardener, W. Reaction of the intellectually normal and retarded boys after experimentally induced failure - a SLT interpretation. In Norman Ellis (Ed.) Handbook of mental deficiency. New York: McGraw-Hill, 1963, 41-91.
- Gardener, W. The effect of failure in intellectually retarded and normal boys. Amer. J. ment. Defic., 1966, 70, 899-902.

- Gebhard, M. The effect of success and failure upon the attractiveness of activities as a function of experienced expectancy and need. J. exp. Psychol., 1948, 38, 371-388.
- Heber, R. Motor task performance of high grade mentally retarded males as a function of the magnitude of the incentive. Amer. J. ment. Defic., 1959, 63, 667-671.
- Holden, K. & Rotter, J. Supplementary report: a nonverbal measure of extinction in skill and chance situations. J. exp. Psychol., 1962, 63, 519-520.
- Hunt, D. Changes in goal object preference as a function of expectancy for social reinforcement. J. abnorm. soc. Psychol., 1955, 50, 372-377.
- Hyman, R. & Jenkin, N. Involvement and set determinants of behavior sterotypy. Psychol. rep., 1956, 12, 131-146.
- Irvin, F. Stated expectancies as a function of probability and desirability of outcomes. J. Pers., 1953, 21, 329-335.

- James, W. & Rotter, J. Partial and 100% reinforcement under chance and skill conditions. J. exp. Psychol., 1958, 55, 397-403.
- Jessor, R. The generalization of expectancies. J. abnorm. soc. Psychol., 1954, 49, 196-200.
- Jessor, R. & Readio, J. The influence of the value of an event upon the expectancy of its occurrence. J. gen. Psychol., 1957, 56, 219-228.
- Kaufmann, H. Task performance and responses to failure as a function of imbalance in the self concept. Psychol. Monogr., 1963, 77.
- Leventhal, H. & Perloe, S. A relationship between self esteem and persuasibility. J. abnorm. soc. Psychol., 1962, 64, 385-388.
- Lewis, D. & Duncan, D. Expectancy and resistance to extinction of a lever pulling response as a function of the percentage of reinforcement and the amount of reward. J. exp. Psychol., 1957, 54, 115-120.
- Marks, R. The effects of probability, desirability and "privilege" on the stated expectancy of children. J. Pers., 1951, 19, 332-351.

- McGhee, W. Judgment and the level of aspiration.  
J. gen. Psychol., 1940, 22, 3-15.
- Mischel, W. The effects of commitment situation  
on the generalized expectancies. J. Pers.,  
1958, 26, 508-516.
- Moulton, R. The effects of success and failure on  
the level of aspiration as related to achieve-  
ment. J. Pers. soc. Psychol., 1964, 1, 399-416.
- Nereditch, S. Differential responses to failure  
in hospitalized and nonhospitalized groups.  
J. abnorm. soc. Psychol., 1957, 54, 339-342.
- Phares, J. Changes in skill and chance situations.  
J. abnorm. soc. Psychol., 1957, 54, 339-342.
- Phares, J. Expectancy changes under conditions of  
relative spacing and massing. Psychol. Rep.,  
1961, 8, 199-206.
- Phares, J. Delay as a variable in expectancy changes.  
J. Psychol., 1964, 57, 391-402.
- Rotter, J. Social learning and clinical Psychology.  
Edgewood Cliffs, New Jersey: Prentice Hall, 1964.
- Rotter, J., Fitzgerald, B. & Joyce, J. A comparison  
of some objective measures of expectancy.  
J. abnorm. soc. Psychol., 1954, 49, 111-114.

- Rosen, M., Diggory, J. & Werlinsky, B. Goal setting and expectations of success in institutionalized and noninstitutionalized subnormals. Amer. J. ment. Defic., 1966, 70, 249-253.
- Rychlak, J. Task negative influence and negative stability of generalized expectancies. J. exp. Psychol., 1958, 55, 459-462.
- Rychlak, J. & Eacker, J. The effect of anxiety, delay and reinforcement on the generalized expectancies. J. Pers., 1962, 30, 123-136.
- Sampson, E. & Sibley, L. A further examination of the confirmation of expectancy and desires. J. Pers. soc. Psychol., 1965, 2, 133-136.
- Sears, P. Levels of aspiration in academically successful and unsuccessful children. J. abnorm. soc. Psychol., 1940, 35, 98-122.
- Silverman, I. Self esteem and differential responsiveness to success and failure. J. abnorm. soc. Psychol., 1964, 69, 115-119.
- Sloven, T., Schumer, H. & Myers, J. Effects of success and instructions on verbalized

- expectancies and amount bet in a two choice situation. Psychol. Rep., 1964, 15, 387-394.
- Starkman, S. & Cromwell, R. Self evaluation and performance and subsequent practice effects in mental defectives. Psychol. Rep., 1958, 4, 414.
- Steisel, I. & Cohen, B. The effects of two degrees of failure on levels of aspiration and performance. J. abnorm. soc. Psychol., 1951, 46, 79-82.
- Stotland, E., Thorley, S., Thomas, E., Cohen, A. & Zander, A. The effects of group expectation and self esteem upon evaluation. J. abnorm. soc. Psychol., 1957, 54, 55-63.
- Stotland, E. & Hellmer, M. Identification, authoritarian defensiveness and self esteem. J. abnorm. soc. Psychol., 1962, 64, 385-388.
- Tempone, V. Extension of the repression - sensitizations hypothesis to success and failure experience. Psychol. Rep., 1964, 15, 39-45.

- Turbiner, M. The effects of success background followed by failure experience upon the performance of schizophrenic, hospitalized non-schizophrenics and normals. J. consulting Psychol., 1964, 28, 190.
- Wachs, T. & Cromwell, R. Perceptual distortion by mentally retarded and normal children in response to failure influence. Amer. J. ment. Defic., 1966, 70, 803-806.
- Ward, W. & Sandvold, K. Performance expectancy as a determinant of actual performance: a partial replication. J. abnorm. soc. Psychol., 1963, 67, 293-295.
- Wellner, A. Expectancy shifts under three conditions of reinforcement for paranoid and depressed patients. J. clin. Psychol., 1963, 19, 197-169.
- Zigler, E., Hodges, L. & Stevenson, H. The effects of support and nonsupport on the performance of normal and feebleminded children. J. Pers. 1958, 26, 106-122.



APPROVAL SHEET

The thesis submitted by Ann H. McIntyre has been read and approved by the director of the thesis. Furthermore, the final copies have been examined by the director and the signature which appears below verifies the fact that any necessary changes have been incorporated, and that the thesis is now given final approval with reference to content and form.

The thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master of Arts.

3-25-68

Date

R. C. Walker

Signature of Adviser