

The Development of Defense Mechanisms

Phebe Cramer

Williams College

ABSTRACT It is proposed that defense mechanisms may be characterized as forming a hierarchy, from least to most complex, and that the lowest level defenses emerge early in life, while the more complex defenses emerge later in development. Three defenses—Denial, Projection and Identification—were chosen to test this assumption. A method for assessing the use of these defenses in Thematic Apperception Test (TAT) stories was developed and validated in a study of four age groups: preschool, elementary school, early adolescent, and late adolescent. The results of the study were consistent with the prediction. Denial was used most frequently by preschool children, and decreased in use thereafter. Identification was used minimally by preschool children but increased steadily through adolescence. The use of Projection was most frequent in the two middle age groups. Some evidence for sex differences, based on the internal/external orientation of the defense, also was found.

The study of defense mechanisms began with S. Freud's (1894) investigation into certain forms of psychopathology. Shortly thereafter, he (1915) began to consider defense as a category of general—i.e., non-pathological—mental mechanism(s) used by the individual in conflict situations. That defenses may or may not take a pathological form was spelled out further in subsequent writings (e.g., Freud, 1923). With a shift in psychoanalytic theory away from instincts and toward the interaction of the ego with the environment, there was an increased recognition of defense mechanisms as normal cognitive processes used by men and women in their adaptation to reality (e.g., A. Freud, 1946; Hartman, 1939). Within this framework, defenses serve to enrich and strengthen, in a positive sense, the ego organization (Schafer, 1968).

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The term "defense mechanism," as used in this article, refers to any cognitive operation that functions so as to protect the individual from the disruptive effects of excessive anxiety. In this sense, defenses are adaptive, they allow the individual to continue to function in anxiety-arousing situations. When used excessively, defenses may distort reality.

This conception of defenses as a part of normal personality functioning opens the way for a consideration of the development of defense mechanisms. There is considerable consensus in the theoretical literature that some defenses are more primitive or immature, such as denial, repression, and negation, while others are more complex or mature such as intellectualization and identification (e.g., Anthony, 1970, Cramer, in Rohwer, Ammon & Cramer, 1974, A. Freud, 1946, Plutchik et al., 1979, Vaillant, 1971). Vaillant (1977) specifically hypothesized that mechanisms such as denial are common in children before age five, while mechanisms such as projection are usual in children ages three to fifteen. From a developmental perspective, it makes sense to assume that the most primitive defenses would emerge earliest in the life of an individual, while the more complex defenses would not appear until later, much in the same way that other ego functions (e.g., cognitive operations or moral reasoning) emerge in a developmental, stage-related fashion.

Chandler et al. (1978), Dollinger and McGuire (1981), and Whiteman (1967) have demonstrated a developmental sequence in the understanding of how defense mechanisms work, and the relationship between understanding and use has been discussed previously (Cramer, 1983). As yet, however, there is scant empirical support for the assumption that defenses emerge during childhood and adolescence along a developmental continuum, and that the use of different defenses characterizes different developmental periods. Some supporting evidence comes from the finding that very young children are more likely to use denial than are older children, who in turn are more likely to use compulsive or intellectualizing defenses (Ames et al., 1974, Brody et al., 1985, Smith & Danielson, 1982, Smith & Rossman, 1986).

In this article, the developmental course of three defenses is considered: Denial, Projection and Identification. Theoretically, Denial is the most primitive defense, and serves to protect the infant from excessive or noxious stimulation, from which he or she cannot physically remove himself or herself. Its physiological precursor is sleep (Spitz, 1957). Denial functions by withdrawing attention from the noxious stimulus, thereby denying its existence. In slightly older children, denial may be

carried out through the use of language. The frightening aspect of the stimulus is negated (e.g., the boy is "not afraid," or the doctor's shot "doesn't hurt"), or is mentally changed into something it is not (i.e., something less threatening), through reversal, transformation, or other modification of reality in such a way that it becomes more pleasant.

The use of Denial, beginning in infancy, continues throughout toddlerhood. By early childhood, social pressures from peers, as well as increased cognitive abilities, contribute to the reduction of this defense, although its use may continue on an internal, fantasy level. In fantasy, the young child may transform weakness into strength, fear into courage, and failure into success. Although this kind of pleasurable fantasy may continue into adolescence and adulthood in the form of occasional day-dreaming, in normal development the importance of Denial as a defense has largely ended by the middle years of childhood.

Theoretically, Projection is a defense more mature than Denial, and less mature than Identification. Unlike Denial, Projection requires the ability to differentiate between internal and external stimuli. It also depends on the development of internal standards by which certain thoughts and feelings are judged unacceptable. Projection functions by attributing unacceptable internal psychological states to others external to oneself. As with Denial, Projection has a physiological precursor. The young baby who finds something in his or her mouth that is disagreeable spits it out, in the same way that the psychological mechanism of Projection gets rid of an unpleasant feeling by expelling it into the environment. The relationship of Projection to the existence of standards of "good" and "bad," or "right" and "wrong," suggests that this defense may assume relatively greater importance in the years following the development of an internalized conscience, that is, during middle childhood and after.

In a mild form, Projection need not seriously distort reality. Instead through the development of empathic responses and projective identification (e.g., "We all think alike"), its use may facilitate the cohesiveness of peer groups. Thus, Projection may continue as an important defense throughout childhood and adolescence.

Finally, Identification is theorized to be a defense more mature than either Denial or Projection. It requires the capacity to differentiate self from other, to differentiate among many "others," and to form enduring internal mental representations of those others. It functions by taking as one's own certain qualities of others that serve to provide a sense of security and self-esteem, while rejecting those that do not. Physiological

precursors of Identification are found in the infant's incorporating into his or her own body mother's food, and in his or her spontaneous imitation of parents' gestures (Jacobson, 1954, Meltzoff & Moore, 1977, Spitz, 1965) The development of Identification, however, is a slow process It begins in infancy and continues through childhood and adolescence, involving the internalization of parental attitudes, values, interests, and skills during childhood It continues with the separation from these early identifications and the creation of an individuated self based on new identifications with consciously selected role models during adolescence While some aspects of Identification may be present during childhood, it becomes increasingly important as a psychological mechanism during adolescence According to theory, it is not until the end of adolescence that the process of identification is completed (Blos, 1979)

Based on the above formulation, it is hypothesized that Denial is the characteristic defense of young children and will predominate early in development By early childhood, Projection will increase in importance and will continue as an important defense throughout adolescence Finally, Identification, being considerably more complex, will develop more slowly than Projection, reaching maximum importance during the adolescent years

The choice of a method in the present study to investigate children's defenses was governed by several factors There are but few systematic methods available for studying defenses in adults (e.g., Gleser & Ihilovich, 1969, Haan, 1965, Joffe & Naditch, 1977) and even fewer methods available for children (Brody et al., 1985, Cramer, 1983) While each of these methods has had some success in assessing children's defenses, each is constrained by restricting the child's behavior to pre-established response alternatives A defense mechanism, however, is a form of thought process that may be expressed with varying content To assess the occurrence of defense mechanisms, it is thus desirable to use a method that allows the child's thought processes to be revealed in an unhampered and undirected fashion, in a situation for which no stereotyped response is readily available The situation should be both standard and appropriate across a range of ages and should be of the type likely to arouse thought processes (rather than, for example, a physical response) Although these mental processes cannot be observed directly, they may be inferred from verbal behavior Because defense mechanisms are rather complex mental processes, they are more likely to be revealed in relatively extensive samples of verbal behavior than in single word re-

sponses Finally, some means must be available for two or more independent observers to decide whether or not a defense was used

The method that most closely approximated these various requirements was the Thematic Apperception Test (TAT), for which a manual designed to score defenses was especially developed The development of this method in a derivation study is described in the following section

METHOD

Derivation Study

The development of the scoring manual was based on a derivation sample of 42 children, each of whom told stories to four Children's Apperception Test (CAT) and Thematic Apperception Test (TAT) cards

Subjects The children represented three age groups Group I (8 boys, 6 girls) mean age = 5 years 2 months, range = 4 years to 5 years, 11 months, Group II (11 boys, 3 girls) mean age = 9 years 1 month, range = 8 years to 9 years, 11 months, Group III (13 boys, 1 girl) mean age = 11 years, 9 months, range = 11 years to 12 years, 11 months

Materials and procedure For Groups I, II, and III, the following stimulus pictures from the CAT (Bellak, 1954) and the TAT (Murray, 1943) were used for Groups I and II, CAT 3, 5, and 10, and TAT 8BM, and for Group III, CAT 3, TAT 8BM, 12M, and 13MF Each subject was tested individually in a private room Standard instructions were used (Bellak, 1949, Murray, 1943) The stories were tape-recorded and subsequently transcribed, with identifying data removed

The 168 stories obtained were used to develop scoring categories to assess the use of three defenses Denial, Projection, and Identification These categories were derived from the analysis of empirical findings of themes and response styles which seemed to differentiate between older and younger children, and which, at the same time, illustrated some aspect of the theoretical description of one of the three defenses (e.g., Fencichel, 1945, A Freud, 1946) and/or had been used in one of the few previously published attempts to formulate a scoring system for defenses based on projective test data (Bellak, 1975, Haworth, 1963, Schafer 1954)¹ After several preliminary attempts, a final scoring plan was de-

1 A similar approach was used by Stewart (1982) with the TAT to develop scoring categories indicative of different stages of emotional adaptation

veloped, such that, for each defense, there were seven categories, representing different aspects of the defense. Each category is scored as many times as it occurs in each story.²

The categories for each defense are as follows:

Denial (1) Statements of negation, (2) Denial of reality, (3) Reversal, (4) Misperception, (5) Omission of major characters or objects, (6) Overly maximizing the positive or minimizing the negative, and (7) Unexpected goodness, optimism, positiveness, or gentleness

Projection (1) Attribution of hostile feelings or intentions, or other normatively unusual feelings or intentions, to a character, (2) Additions of ominous people, animals, objects, or qualities, (3) Concern for protection from external threat, (4) Themes of pursuit, entrapment, and escape, (5) Apprehensiveness of death, injury, or assault, (6) Magical or autistic thinking, and (7) Bizarre story or theme

Identification (1) Emulation of skills, (2) Emulation of characteristics, qualities, or attitudes, (3) Regulation of motives or behavior, (4) Self-esteem through affiliation, (5) Work, delay of gratification, (6) Role differentiation, and (7) Moralism

A fuller description of these categories is provided in the Appendix, explicit criteria and numerous examples are given in the scoring manual (Cramer, 1982)

Three examples will illustrate how the scoring system works. The following story was told by a 5-year old girl to TAT Card 17BM, which depicts a man clinging to a rope:

A statue climbing down a rope. He falls and then breaks. And then somebody builds him back up and he does the same thing over again. The people have to build him back up and put him back up on the rope and then he swings down and breaks. (How is he feeling?) He's made out of clay. He doesn't

While nearly all children, regardless of age, see the figure clinging to the rope as a live man, this little girl turns the figure into a statue. Given the subsequent course of the story, it appears that she is concerned about the possibility of the figure falling. In order to quell her anxiety about injury or death, she denies that the figure is alive, if it is not alive, it

2. A copy of the Defense Scoring Manual is available from the author.

cannot be hurt and cannot die. This denial is carried out through a misperception, the human being is misperceived as being a statue. However, this denial is not completely successful. It leads to a disruption in reality testing, in which the statue exhibits animate behavior, by “climbing down a rope.” When the concern about falling and its consequences is expressed (“He falls and then he breaks”), we see how the perceptual denial allows the child to avoid and undo the anxiety-laden fear of death. Since it is a statue, the pieces can be put back together again, and so there is no harm, and nothing to be feared. But the issue is not put to rest completely, for the whole process is then repeated. The denial mechanism is made most explicit in the child’s final statement. Because he is made out of clay, he doesn’t have any feelings, and so is not afraid and is not hurt.

In terms of the formal scoring system, this story would receive four scores for Denial in the following categories: (1) Negation (1 e, he doesn’t feel), (2) Denial of reality (1 e, statue climbing), (3) Reversal (1 e, broken statue is made whole), and (4) Misperception (1 e, man perceived as statue).

Another story to the same TAT picture, from a 10-year old boy, is quite different.

A man was being chased by a bunch of soldiers who wanted to kill him. He’s climbing up the rope and if he doesn’t make it up he’ll get chopped to death with swords. So he is hanging as tight as he can and when he gets to the top he’ll be on the border—that’s a secret place underground. There is this hatch that is on the border so they can’t get him.

This story is resplendent in the projection of hostility, as well as in the concern for protection from that hostility. The particularly vivid image of being chopped to death with swords is entirely contributed from the storyteller, there is nothing in the picture to suggest guards or swords. Possibly the anxiety surrounding this image contributes to the confusion in thinking which occurs both in this boy’s misuse of the word “border” and in his spatial orientation—the man who gets to the *top* is now underground.

In terms of the scoring system, this story would receive four scores for Projection, in the following categories: (1) Attribution of hostile intentions (1 e, the guards want to kill him), (2) Addition of ominous objects (1 e, swords), (3) Concern for protection from external threat (1 e, a se-

cret place with a hatch so they can't get him), and (4) Theme of pursuit (1 e , being chased)

Another story to TAT 17BM, from a high school boy, illustrates the use of a variety of Identification categories

The people are the citizens of the U S and they're all trying as hard as they can to have a good life They number between 5 and 10 in population They have all had hard lives and they've been hardened by it They are almost at the end of their climb to greatness They're all thinking of the rewards they'll have for their hard work They feel as though they have all the troubles of the world on their shoulders Most of them reach the top, but the weak fall behind and lost [sic] out in life

This story would receive five scores for Identification (3) Regulation of motives, behavior (1 e , internalization of responsibility, troubles of the world on their shoulders), (4) Self-esteem through affiliation (1 e , being part of the group brings success), (5) Work, delay of gratification (1 e , hard work, nearing end of climb to greatness), (6) Role differentiation (1 e , "citizens"), and (7) Moralism (1 e , the weak fell behind and lost out in life)

While these examples illustrate the use of only one defense, many stories include instances of more than one defense Each story is scored for the occurrence of all the categories of defense that appear, and a subject may have scores on none, one, two, or three of the defenses under study

Using these scoring categories, it could be seen that Denial, the least mature defense, generally was used most often by the youngest subjects and decreased in use steadily across the next two age groups On the other hand, Identification, the most mature defense, was used least often by the youngest subjects and steadily increased in use across the next two oldest age groups The use of Projection, which is theorized to be more mature than Denial but less mature than Identification, was found to be midway in use between the other two defenses for all three age groups

Main Study

METHOD

Encouraged by these findings, a second validation study was undertaken with a new sample of subjects from a wider age range, whose stories were not involved in the development of the scoring manual

Subjects

A total of 320 subjects, representing four age groups, with an equal number of boys and girls in each age group, was studied. Subjects in the Primary and Intermediate groups were students at a private country day school and a public elementary school.³ The mean age for the 80 subjects in the Primary group was 5 years, 8 months, with a range from 4 years, 4 months to 7 years, 8 months, and for the 80 subjects in the Intermediate group the mean age was 9 years, 10 months and the range was 8 years, 2 months to 11 years, 9 months. The Early Adolescent and Late Adolescent subjects were all students at a local high school. The majority of students from the two lower-level schools go on to attend this high school, thus the high school subjects may be assumed to come from the same population as the younger subjects. The 80 subjects of the Early Adolescent group were all ninth or tenth graders with a mean age of 14 years, 6 months. The 80 subjects of the Late Adolescent group were all eleventh or twelfth graders with a mean age of 16 years.

Procedure

All subjects were shown the same two TAT pictures: card 1 (a boy sitting and looking at a violin) and card 17BM (a man clinging to a rope). Standard TAT instructions were used, with some adaptation for the younger subjects.

Subjects in the Primary and Intermediate groups were tested individually in a private room at the school. Their stories were tape-recorded and subsequently transcribed, with identifying data removed. Subjects in the two high school groups were tested in small groups. Each subject was given a copy of the TAT pictures and a separate sheet of paper on which to write each story. Stories were subsequently copied, with identifying data removed. Previous research with the TAT, using a similar approach to assess psychodynamic themes, has found comparable results for both oral and written forms of the test (May, 1975).

RESULTS

All of the 640 stories obtained from the 320 subjects were scored by one rater, using the Manual developed in the derivation study. Subsamples of

³ A preliminary analysis of the data indicated that the results from these two schools did not differ.

Table 1
Mean Defense Scores (Absolute) for 4 Age-groups (Main Study)

| | Denial | Projection | Identification |
|-------------------------|--------|------------|----------------|
| <i>Primary</i> | | | |
| Male | 85 | 1 45 | 42 |
| Female | 1 15 | 75 | 45 |
| Total | 1 00 | 1 10 | 44 |
| <i>Intermediate</i> | | | |
| Male | 42 | 2 00 | 1 42 |
| Female | 35 | 1 00 | 1 30 |
| Total | 39 | 1 50 | 1 36 |
| <i>Early Adolescent</i> | | | |
| Male | 58 | 2 20 | 1 98 |
| Female | 78 | 3 32 | 2 72 |
| Total | 68 | 2 76 | 2 35 |
| <i>Late Adolescent</i> | | | |
| Male | 90 | 2 68 | 2 60 |
| Female | 1 08 | 2 22 | 2 90 |
| Total | 99 | 2 45 | 2 75 |

stories from the different age groups were scored by two independent raters who were unaware of the hypotheses. Each rater scored each story for each defense (i.e., Denial, Projection, and Identification). The scores of Rater 1 were correlated with those of Rater 2, for each defense separately and for each age group separately. The interrater reliability coefficients for Denial ranged from .81 to 1.00, for Projection, from .71 to .90, and for Identification from .71 to .88.

As may be seen in Table 1, the absolute level of defense use is higher among the older subjects. This increase is consistent with the hypothesis that more defenses become operative as the child grows older. It also reflects the fact that story length increased with age since, with longer stories, there are more opportunities for making defensive statements. As our interest in the present study was in the relative predominance of each defense as a function of age, and not in the absolute amount of defense use, each subject's defense scores were converted into relative scores, with the use of each individual defense expressed as a proportion of total defense use. In this way, story length does not influence the (relative) defense scores. The results appear in Figure 1.

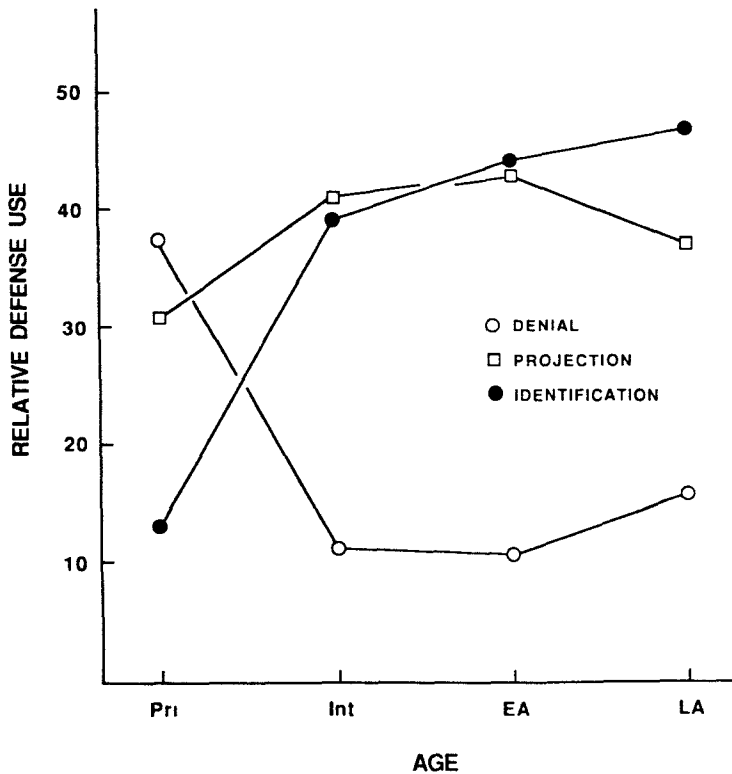


Figure 1

Relative Defense Scores of Primary Intermediate Early Adolescent and Late Adolescent Groups

The relative defense scores were subjected to a 4 (Age) \times 2 (Sex) \times 3 (Defense) analysis of variance, with Defense as a repeated measure. There was a significant effect for Defense, $F(2, 624) = 37.47, p < .001$, and the Age \times Defense interaction was significant, $F(6, 624) = 16.82, p < .001$. Denial was used more by Primary subjects than by any other group, $t_s(158) = 4.76-5.48, p_s < .001$. Projection was used more by Intermediate and Early Adolescent subjects than by Primary subjects, $t_s(158) = 1.89$ and 2.57 , respectively, $p_s < .06$ and $.01$. Projection was also used more by Early Adolescent than Late Adolescent subjects, but the difference was not significant, $t(158) = 1.58, p > .10$. Identification was used more often by Intermediate, Early Adolescent and Late Adolescent subjects than by Primary subjects, $t_s(158) = 5.61, 7.91$, and 9.33

respectively, $ps < .001$. Identification also was used more often by Late Adolescent than by Intermediate subjects, $t(158) = 1.93, p < .06$.

Within age groups, Primary subjects used Denial and Projection more often than Identification, $ts(79) = 4.48$ and $3.41, ps < .001$. Intermediate and Early Adolescent subjects used Projection and Identification more often than Denial, $ts(79) = 5.84$ – $9.97, ps < .001$. Late Adolescent subjects used Identification more than Projection, $t(79) = 2.14, p < .04$, and Projection more than Denial, $t(79) = 5.34, p < .001$.

The Sex \times Defense interaction also was significant, $F(2,624) = 3.69, p < .05$. Males used Projection more than females, while females used Denial more than males (Newman-Keuls, $p < .05$). Although males used Projection more often than females in three of the four age groups (Primary, Intermediate and Late Adolescent), the difference was significant only in the Primary group, $t(78) = 2.70, p < .01$. Females' relative preference for Denial also was significant only in the Primary group, $t(78) = 2.17, p < .03$, although their absolute use of Denial exceeded that of males in three of the four age groups (see Table 1). There was one other noteworthy sex difference. Late Adolescent girls used more Identification than Projection, $t(39) = 2.42, p < .02$, while the differences for Late Adolescent boys was nonsignificant, $t(39) = .57$.

DISCUSSION

While the idea of a developmental hierarchy of defenses has been previously proposed (e.g., Vaillant, 1977), empirical support for such an hypothesis from a developmental study marks a new contribution to the study of personality. The results of the present investigation are consistent with the hypothesis of a developmental hierarchy in the use of defenses. In tracing the developmental course of three defenses, it was found that Denial, the most primitive of the three, was used more often by the youngest group of subjects than by any of the other age groups. Identification, the most mature defense, was used most often by the oldest, the Late Adolescent group, next most often by the middle two age groups, and least often by the youngest subjects. Projection, a defense hypothesized to be more mature than Denial but less mature than Identification, was used most often by the middle two age groups (i.e., Intermediate and Early Adolescent).

Moreover, within each age group, the predicted hierarchy of defense use was found. In the youngest age group, the less mature defenses were used more often than the most mature defenses. In the oldest age group,

the most mature defense of Identification was used more often than the less mature defense of Projection, which in turn was used more often than the least mature defense of Denial. The middle two age range groups used the two more mature defenses more often than the least mature defense of Denial.

Consistent with previous studies of children, adolescents, and adults, there were significant sex differences in the use of external versus internal defenses (Cramer, 1979, 1983, Gleser & Ihlevich, 1969). Projection, a defense that operates by externalizing the problem, was used more by males than by females. Denial, a defense that operates by changing the internal cognitive state of the individual, was used more by females. As in an earlier study (Cramer, 1983), this difference was most pronounced in the youngest group of children. Among the oldest subjects of the present study, it was found that females used Identification more often than Projection. This difference did not occur for males, reflecting their greater use of Projection and lesser use of Identification. In terms of the internal-external distinction, Identification is clearly an internal defense, with incorporation, introjection, and internalization as its major components (e.g., Meissner, 1981).

These conclusions rest on the assumption that stories told to TAT cards do in fact provide information about subjects' characteristic use of defense mechanisms. I assume this because it is known that current perception is influenced by past experience (e.g., Carmichael, Hogan & Walter, 1932, Neely, 1977). The way in which individuals respond to a TAT picture is based on their previous experience in responding to similar situations, including their characteristic response to anxiety arousing situations. I assume that the storytelling "test," because of its novelty, is one that creates a moderate amount of anxiety in most individuals. The situation itself is new, the picture is unfamiliar, and the individual is asked to tell a story to an unfamiliar person. To not comply with the task demand has the implication of failure or inadequacy. Individuals respond in order to avoid that experience, as well as to please the examiner. In responding, individuals are protected from experiencing excessive anxiety through the functioning of defense mechanisms. These defenses are manifest in the subjects' immediate behavior—i.e., in the stories they tell. At the same time, complying with the examiner's storytelling request has some similarities to the requirements of an ordinary social interaction situation, the reaction of subjects to the storytelling task will be an indication of their usual manner of responding to similar real life

events For these reasons, I assume that subjects' responses to the TAT tell us something about their use of defenses in real life situations

While the present study does convincingly demonstrate a developmental continuum of defense, several qualifications may be noted First, only three defenses, chosen to represent different points on the developmental continuum, were studied It seems likely that similar developmental patterns might be found for other cognitive defense mechanisms, such as rationalization or intellectualization Also beyond the scope of the present paper is the question of affective defenses—for example, depression defending against anger These defensive operations, too, may have a developmental course It should also be pointed out that not all subjects gave evidence for using defense mechanisms in responding to the storytelling task, just as, in real life, behavior can be conflict-free, that is, not defensive Given these qualifications, the present method for assessing defense mechanisms has proven quite useful

Appendix

Scoring Categories for Defenses

Denial

- (1) Statements of negation
 - (a) A character "does not _____" an action, wish, or intention, which, if acknowledged, would cause displeasure, pain or humiliation
 - (b) The storyteller negates or denies a fact or feeling
 - (c) References to doubt as to what the picture is or represents
- (2) Denial of reality
 - (a) The storyteller denies the reality of the story or situation
 - (b) Sleeping, daydreaming, or fainting as a way of avoiding something unpleasant
 - (c) Avoiding looking at (hearing, thinking about) something that would be unpleasant to see (hear, think about)
 - (d) Any perception, attribution or implication that is blatantly false with regard to reality
- (3) Reversal
 - (a) Transformation, such as weakness into strength
 - (b) Any figure who takes on qualities previously stated conversely
- (4) Misperception

- (a) Unusual or distorted perception of a figure object or action in the picture, without support (not ominous)
- (b) Perception of figure as being of opposite sex from that usually perceived
- (5) Omission of major characters or objects
(Specific criteria for each TAT card)
- (6) Overly maximizing the positive or minimizing the negative
 - (a) gross exaggeration or underestimation of a character's qualities, size, power, etc
- (7) Unexpected goodness, optimism, positiveness, gentleness
 - (a) unexpected goodness
 - (b) a drastic change of heart for the good
 - (c) references to natural beauty, wonder, awesomeness
 - (d) nonchalance in the face of danger
 - (e) acceptance of one's (negative) fate or loss, "sour grapes "

Projection

- (1) Attribution of aggressive or hostile feelings, emotions or intentions to a character, or of any other feelings, emotions or intentions that are normatively unusual, if such attribution is without sufficient reason
- (2) Addition of people, ghosts, animals, objects, or qualities
 - (a) score only if the additions are of an ominous or potentially threatening nature
 - (b) especially, the addition of blood, serious and uncommon illnesses, nightmares
 - (c) references to people, animals or objects being decrepit, falling apart, deteriorating
- (3) Concern for protection against external threat
 - (a) fear of threat or assault and the need for protection against this, as seen in the use of disguises and the creation of protective barriers
 - (b) suspiciousness, spying, anticipation of kidnap, etc
 - (c) having seen something one shouldn't and the need to hide this, fear of being seen, protective hiding
 - (d) defensive self-justification on the part of the storyteller
- (4) Themes of pursuit, entrapment and escape
 - (a) one character pursuing or trapping another
 - (b) escape from a physical imprisonment, danger, or threat thereof
- (5) Apprehensiveness of death, injury, assault
 - (a) physical attack, injury, or death actually occurs
 - (b) fear of going to sleep
- (6) Magical, autistic, or circumstantial thinking

- (a) use of magical powers, including hypnosis, in which one character controls another
- (b) animism
- (c) circumstantial reasoning with a paranoid flavor, hyperalert search for flaws or hidden meanings
- (7) Bizarre or very unusual story or theme
 - (a) negative themes that occur very rarely, especially if there is a peculiar twist
 - (b) unusual punishment, including self-punishment

Identification

- (1) Emulation of skills
 - (a) one character imitating, taking over, or otherwise acquiring a skill or talent of another character, or trying to do so
- (2) Emulation of characteristics
 - (a) imitating taking over, or otherwise acquiring a characteristic, quality, or attitude of another character, or trying to do so
 - (b) references to one character being like another, the same as another, or merged with another
- (3) Regulation of motives or behavior
 - (a) demands, influence, guidance, prohibitions of one character over another, or the rebelling against these
 - (b) self-criticism or self-reflection, on the part of the storyteller or of a character in the story
 - (c) justified punishment by parents or authority
- (4) Self-esteem through affiliation
 - (a) success or satisfaction which comes about through association with someone else (peer), or the expressed need for this kind of affiliation
 - (b) being part of a special group from which some special pleasure or help derives
- (5) Work, Delay of gratification
 - (a) references to a character working
 - (b) references to delay, in order to obtain some future gratification
- (6) Role differentiation
 - (a) mention of characters in specific adult roles (non-familial)
- (7) Moralism
 - (a) moralistic outcome to story
 - (b) justified punishment administered by authority figure (not parents)

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