Learning disability is suggested to be a dissociative reaction (school 'shock) similar to shell shock in wartime requiring appropriate theoretical and remedial approaches. Psychoanalytic and learning theory viewpoints are applied to the nature of learning disabilities. Also considered are the relation of anxiety to achievement and hypnosis to dyslexia. It is proposed that the concept of minimal brain damage be replaced by "minimal dissociative reaction." Suggested are such teaching methods as tachistoscopic presentation of reading material, encouragement of anxiety-reducing psychomotor activity (such as gum chewing) during intellectual effort, hand pacing while reading, and male/female teaching pairs. (DB)
School Shock: Learning Disability as a Dissociative Reaction

E. Alfredo Zitani
Division of Pupil Personnel Services
Willingboro Public Schools
Willingboro, New Jersey 08046
U. S. A.

Running head: School Shock: Learning Disability

Footnote:
Presented at the conference on Dimensions of Anxiety and Stress of the Scientific Affairs Division, North Atlantic Treaty Organization, Oslo, Norway, July 1975.
A shell explodes and five soldiers in excellent physical health become casualties of war. One loses his voice. A second develops blurred vision. A third tearfully cries out to his sergeant to be held and rocked. Another wanders aimlessly in circles and a fifth soldier convulses uncontrollably. Such are the varied and often incomprehensible effects of shell shock, one of the few behavioral disorders whose onset can be observed and clearly tied to an environmental determinant.

When first recognized as a major combat problem in World War I, the symptoms of shell shock were thought to arise from the concussive effects of shell explosions. This organic diagnosis placed the locus of the problem within the soldier. Inappropriate treatment strategies resulted in uncured cases remaining in veterans' hospital for many years.

During the time of the Second World War, the psychogenic nature of shell shock was better understood. The formula PREDISPOSITION PLUS STRESS EQUALS NEUROSES (Watkins, 1919) became the foundation for developing therapeutic approaches. Rest and psychotherapy were the treatments of choice. Hospitalization was de-emphasized and many men improved dramatically after a few days' rest, relaxation and sympathetic encouragement. Soldiers whose symptoms did not quickly abate received psychotherapy of the type that had proven to be
effective years earlier with hysterical symptoms. A mainstay of this therapy was hypnosis.

When finally understood in terms of psychodynamic forces, the problem of shell shock (variously referred to as war neuroses, combat fatigue and gross stress reactions) was well on its way to being solved.

Another behavioral problem for society emerging into major proportions out of World War I is what we now refer to as learning disabilities. Universal conscription and the simultaneous development of group tests put mental measurement on a mass production basis and directed public attention to the large number of men who did not acquire fundamental school skills, especially reading proficiency. This problem, now of epidemic magnitude, has not yielded so readily to solution as has shell shock, perhaps because, unlike the armed services, schools cannot bring to bear on the problem unified and coordinated diagnostic and treatment services.

The twin problems of shell shock and learning disabilities share a common emergence into epidemic proportions. Can we make gains towards solving learning problems of children by viewing them through the framework of the shell shock model of psychopathology?

The shell shock model is essentially psychodynamic and this branch of psychiatry and psychology has never found favor in public education. Especially in the education of the handicapped it is increasingly pushed into the background by the
popularity of neurological/perceptual impairment and behavior modification diagnostic conceptions and teaching strategies.

Freud is dead. The 1325 page Second Handbook of Research on Teaching (1973) contains seven references to Freud in the index. The first of these states: "Although evident in the mental hygiene movement ... Freudian psychology was neglected in educational psychology."

To say the least, ideas such as the unconscious, infantile sexuality, oedipal conflict, and castration anxiety are difficult to deal with in public education. Furthermore, a one-dimensional emphasis on intrapsychic conflict in psychoanalysis offered little help to the harried teacher trying to educate the learning disordered child. In addition, psychoanalysis has been often very unfriendly toward pedagogy, pointing out the dangers inherent in the educational process when it tries to force the child to fulfill the demands of the adult world (Freud, 1954; Neill, 1960).

One of the more obvious examples of the impotence of psychoanalysis in education is the lack of impact in the classroom resulting from the many studies which have related unresolved oedipal strivings to underachievement (Buxbaum, 1965; Grunebaum et al., 1962; Hellman, 1954; Morrow and Wilson, 1961; Proctor, 1958, 1967; Sparry et al., 1958).

In present day child study practice there is very little consideration given to the determinant role that sex related anxiety may be playing in the underachievement and/or learning disability problem. Complementary to the psychoanalytically oriented studies cited above there are several epidemiological tendencies which call for
Closer examination of the stresses created by male/female interactions in the learning situation. Of particular significance for the oedipal hypothesis is the high failure rate of girls as compared with boys in Germany where the proportion of male teachers in the elementary schools is also high (Spache' and Spache', 1969). This is, of course, opposite to the American condition of high failure rate for boys in an educational system of female teachers. As male teachers begin to appear in American schools, from about the fourth grade upward, the underachievement rate in girls begins to approach that of boys (Tyler, 1965). This may also be a function of sex anxiety increasing in relation to peer interaction as latency ends. Lessening sexual anxiety may also be a significant factor in studies that show greater reading achievement for boys who are separated into groups for instruction (Spache and Spache', 1969).

Concepts of uneven sex-differentiated, biological maturation do not serve well in explaining these relationships between sex and school achievement. By integrating Freudian notions of psychosexual development with shell shock dynamics we can find a common syndrome in the hysterical dissociative reaction which may provide a rationale for these sex differences.

Freud linked hysteria to unresolved oedipal wishes. Later theoretical viewpoints recognized that conflicts involving aggression and dependency deriving from pre-oedipal levels of psychosexual development also resulted in hysterical reactions. The war neuroses, frequently manifested by hysterical symptoms, brought an emphasis on the importance of environmental stress in the etiology of hysteria.
Current nosology differentiates hysteria into the separate but closely related classifications of conversion reaction and dissociative reaction. The essential difference is the symptom target, body or mind. They have in common an inappropriate split in the behavior or consciousness which affects a circumscribed motor, sensory or cognitive function or which episodically involves the entire personality.

Typical conversion reactions include: motor symptoms – paralyses, tics, and tremors; sensory symptoms – anesthesias, parathesias, and hyperesthesias; visceral symptoms – anorexia, vomiting, bulimia, and hiccups (Anthony, 1967).

The dissociative reactions include amnesias, various trance states, somnambulism, multiple personality, and frenzied or violent states such as "running amok".

The conversion reactions appear to be diminishing in incidence both in shell shock casualties and in contemporary mental health practice in the general population. The term "conversion" remains in popular usage to indicate that a physical symptom has psychogenic etiology but it is becoming recognized that the underlying psychophysiological mechanism for all the hysterias is best defined as "dissociation".

West (1967) describes dissociation in information processing terms as a "psychophysiological process whereby information – incoming, stored, or outgoing – is actively deflected from integration with its usual or expected associations." If it is specified that the condition applies particularly to written language information as it is processed by a child of adequate intelligence who has had normal learning opportunities, then one has a definition of dyslexia, a specific learning disability.
A more traditional definition of dissociation is given by English and English (1958) as follows: "... a process whereby (or condition in which) a group of psychological activities possessing a certain unity among themselves lose most of their relationships with the rest of personality and function more or less independently."

Dyslexia is a specific learning deficiency which is more or less independent of the broadly conceived learning capacity we call intelligence. It is this separate, split-off quality that likens it to a dissociative reaction but which also gives rise to hypotheses of organic damage.

Thus far the shell shock/school shock concept of learning disorder has been discussed in psychodynamic perspective. Shell shock reactions have also been satisfactorily explained in learning theory terms (Dollard and Miller, 1950; Miller, 1972). In this case the symptoms are seen as learned responses reinforced by the reduction of anxiety. Dyslexia may also be seen as a learned response reinforced by anxiety reduction although some research tends to negate this premise.

Gaudry and Spielberger (1971), in their examination of the relationship between anxiety and learning, report that some studies show no relationship, a few show that anxiety facilitates performance, but the overwhelming weight of evidence consistently points to a negative relation between anxiety and various measures of learning and academic achievement.

On the other hand Athey (1970) concludes that researchers have failed to find any relationship between anxiety and reading ability.

In my own clinical observations of hundreds of poor reading
children. I have found that the very poorest readers with normal intelligence have the least manifest anxiety. As reading proficiency increases so does anxiety to a point where reading skills again deteriorate as high anxiety levels are reached. The very high-anxious children usually read better than the very low-anxious.

By and large, research on anxiety and achievement does not distinguish between low anxiety which may be a function of the absence of stress and low anxiety which may be an outcome of compensatory defenses in the face of stress. My belief is that researchers are not inclined to fully explore the correlates of low anxiety for the same reason that educators and clinicians do not see a low-anxious non-reader as emotionally disturbed.

Low anxiety is usually equated with normal personality functioning whereas it may be pathognomonic to the same extent as is high anxiety. A reasonably good understanding of normal anxiety eludes us at the present time. Organizing our research designs and clinical assessments around the dimensions of excitatory and inhibitory behavior might clarify the ambivalence we have about low anxiety.

When a learning disability is accompanied by low manifest anxiety (la belle indifference) the emotional adjustment of the child must be questioned before remedial practices are instituted. Special education may have iatrogenic effects. Same sex teaching specialists may increase dependency. Opposite sex teachers may increase anxiety and strengthen defenses. If successful, special education may remove the defense structure and leave the child open to establishing new pathological behavior patterns.

Groen (1970) has discussed the substitution aspect of pathology as it exists among the alternatives of psychoneurotic, psychopatho
logic and psychosomatic reactions. This substitution phenomenon is apparent in school pathology. The pupil with a specific learning disorder of significant magnitude often has an excellent attendance record, is in relatively good health, does not exhibit poor conduct and will profess a liking for school. The normal or high achieving pupil who has an underlying emotional disturbance may have a poor attendance record because of illness or school phobic reactions but does not become aggressively anti-social or delinquent. The aggressive, conduct disordered child may be a mild underachiever because of factors of non-conforming, inattentive behavior or truancy but his learning processes will be intact and he will be ill only rarely. The chronically ill pupil is often a normal or high achiever and will exhibit conforming and non-anxious behavior when in school.

This going together of various personality and behavior characteristics is the basis for personality type theories. It is not evidence for the existence of symptom substitution in the individual but logic dictates that contravening one major trait would influence the integrity of the type, causing change in the other traits.

My clinical experience confirms the existence of symptom substitution in a limited sense. Parents have reported pre-school behaviors such as stuttering and hyperactivity existing prior to a learning disorder. For the most part, the clinical evidence for stability of the learning disorder is more impressive.

We do not see children substituting their learning disorders for other symptoms because current special education techniques and practices do not work very well to remove this defense. Pedagogy needs a study such as Eysenck's (1952) work on the effects of
psychotherapy to help develop a healthy skepticism toward special education outcomes.

The problem of symptom substitution for children is a very real one for, unlike much of adult pathology, the determinant of the child's defensive reaction is often still operating so that symptom relief, in this case through academic therapy, is not a sufficient goal.

From the standpoint of epidemiology the increasing incidence of learning disorders as hysterical dissociative reactions may be a substitution for the diminishing gross manifestations of conversion symptoms. The intellect is becoming increasingly vulnerable as a symptom target because of the emotional investment by parents and governments in academic achievement. The workplace of the fighting soldier has changed from trench to foxhole to helicopter and the self worth of the male child now resides in brain competence not brawn and this is the new focus for anxiety formation in our times.

Another perspective for examining learning disorders, especially dyslexia, as a dissociative reaction is from the viewpoint of hypnosis. Freud referred to hypnosis as an artificial hysteria. A dissociative reaction may be understood as a form of spontaneous hypnosis or hypnosis can be explained as a controlled dissociative state. In either case, the fund of information that exists about hypnosis should be mostly applicable to the study of dyslexia as an hysterical dissociative reaction.

Unwittingly, teachers are the most practiced of all hypnotists. The child who has unresolved oedipal strivings or who is overly dependent upon the parent of the opposite sex, will readily transfer
this dependency to a teacher of the opposite sex. In the reading lesson conditions are ideal for trance induction. The child's emotions are running high in expectation of the reading performance. The surrogate parent approaches. A summation of what has been called test anxiety and what has been called castration anxiety heightens the emotional response. The child is instructed to focus attention narrowly upon a letter or word. The intense state of concentration blends into the hypnoid or dissociative state.

Spontaneous hypnosis frequently produces an intensification of existing personality components (Kline, 1958). The introverted child may become more inhibited at this moment and may remain silent, with consciousness temporarily arrested in a split configuration, perhaps partly focused upon the word and partly turned inward, groping for meanings or pronunciation or fantasizing on a theme unrelated to the reading task. Eventually the teacher will call upon another pupil to recite and with the lessening of anxiety the reading trance behavior will be reinforced and, after some repetition of these events, comes to be known as dyslexia.

It can be seen from this illustration that dyslexia is a problem characterized by a long attention span, rather than a short one. A relatively fixed, inward focusing attention is antagonistic to the reading process which requires a flexible inward and outward oscillation of attention to accomplish the tasks of word recognition and comprehension.

In effect what has just been described happening to the child in the classroom is the reading reverie we all experience from time to time. Although our eyes continue to be engaged in the visual tracking of the text our attention is deflected and we become lost.
in thought and experience a brief dissociative reaction until some signal restores us to cognitive (ego) control. In this context it may be said that reading proceeds by free dissociation and that reading stops when attention stops oscillating and becomes fixed in one direction. There is little research that directly investigates this interpretation of the reading process but there is clinical evidence and tangentially related experimental evidence, especially in the hypnosis literature (Bowers and Bowers, 1972; Hilgard, 1972).

An additional explanation of reading failure using the hypnosis model is possible. In psychoanalytic ego psychology hypnosis is regarded as a form of regression, a tendency to shift from a "higher" to a "lower" mental system. This may occur under conditions of stress and conflict without formal hypnosis induction. In the teacher/pupil interaction in the classroom, earlier modes of perception and cognition are reactivated, especially in cases where the pupil is transference-prone. In this case the pupil would not remain mute but would attempt pronunciations, making numerous errors such as reversals, inversions and letter confusions typical of immature visual-perceptual development.

Can a dissociative reaction, reading (learning) disability type be defined without resorting to abstract parallels such as hypnosis? Probably so. In psychometrics the WISC test will yield a Performance I.Q. in the near average range and a Verbal I.Q. fifteen to thirty points lower depending upon the severity of the reaction. Information will have the lowest score in the Verbal scale. This pattern has been noted as identifying hysteria (Schafer, 1948).
There may also be a physiological indicator of the dissociative reaction in heart rate variability. Citing other researchers Bowers and Bowers (1972) suggest that heart rate decelerates when a person is oriented toward external sources of stimulation and accelerates when attention is on the internal manipulation of symbols. The dyslexic child whose attention may be fixed inwardly or outwardly should have a less variable heart rate when reading as compared with performing a task such as the WISC digit symbol.

If diagnosticians are given the same license as they now have in applying the "minimal" concept to brain damage it would be found that a "minimal dissociative reaction" classification could apply to most learning disabilities where there is no gross intellectual retardation, no overt emotional disturbance and no "hard" signs of brain damage. It has much to recommend it over the minimal brain damage/perceptual impairment nosology. Inherent in these latter formulations is the assumption, however veiled, of structural defect which itself cannot be repaired but which must be compensated. The idea that the locus of the problem is within the child effectively evades therapeutic intervention in the crucial disturbed family dynamics which underlies so many cases of school disordered behavior.

The minimal dissociative reaction (MDR) hypothesis is also organically rooted but it is much more optimistic in outlook as it assumes intact anatomy but inhibited functioning of the physiological defense mechanisms accompanied by compensatory psychological defenses. This etiology does not place the causes of learning disabilities beyond the capabilities of the parents to control or prevent.
Another asset of the MDR classification is in the "reaction" appellation which implies a temporary quality and which is ascribed to the behavior rather than to the person.

There is a bonus also in explaining the mechanism of learning disability to parents and teachers by analogy to the dissociative syndrome of the multiple personality. I have found it useful on occasion to discuss the split functioning of the disabled learner in terms of two personalities, the normally functioning one in the home and community roles and the disabled one in the school role.

A most important implication for education of the MDR hypothesis arises out of the idea that attention becomes relatively fixed on internal cognitive processes. To counter this tendency to have a "long" attention span or to remain absorbed in fantasy, techniques would need to be developed to distract the learner, to forestall or interrupt the educational trance, to encourage a freely oscillating attentive ability.

Tachistoscopic presentation of reading material would seem to be an ideal approach. The success of Fernald's kinesthetic technique of reading instruction may be in some measure due to the channeling of attention outward to the tracing task as well as to the visual task.

A second teaching technique emphasis would be directed toward the arrangement of anxiety-reducing psychomotor activity to be contiguous with intellectual effort. Gum chewing and lip movement
during reading might be encouraged instead of prohibited. The handwriting technique of some speed reading systems may prove facilitating for the fantasy-prone learner as well as the anxious learner. Applause can be motivating and anxiety-reducing. Yes and no answers can be expressed by a show of hands, by head movements and by standing.

Some of these techniques may seem trivial but they are mentioned here to raise questions regarding the validity of many present teaching methods and standards of classroom behaviors.

To attain objectives of reducing sex related anxiety with a minimum of sex discrimination school systems would provide male/female team teaching pairs in the elementary grades and would also emphasize same-sex peer tutoring plans and more extensive independent use of programmed instruction methods and materials.

In defense of hypnosis as a therapeutic modality Klihe (1958) states "To employ hypnosis or other techniques requires a broader conceptualization of the nature of human behavior - in one respect more organic in nature, in another even more dynamic than psychoanalysis." I believe this statement expresses very well the potential of a dissociative reaction hypothesis of learning disability to bridge the gap between organic and emotional diagnostic orientations which is now precariously spanned by the perceptual impairment classification.
REFERENCES


References


