

A Rose is a Rose: Effects of Label Change, Education, and Sex on Attitudes Toward Mental Disabilities

Justin D. MacDonald and Peter D. MacIntyre

University College of Cape Breton, Sydney, Nova Scotia

Previous research on attitudes toward mental disabilities has shown a consistent, positive effect when accurate information regarding mental disabilities (i.e., education) is made available. Conversely, the effects of labelling and sex differences produced inconsistent results. This study approaches such attitudes in terms of the "cognitive miser" conception of schema use and examines whether changing labels applied to disabilities alters attitudes toward an individual with a disability. We examined the attitudes held by 168 university/college students employing a test-treatment-retest design. The pretest involved completing the Mental Retardation Attitude Inventory-Revised (MRAI-R). Then participants read an educational vignette emphasizing the skills and daily activities of a person with a mental disability, either mental retardation (MR) or attention deficit disorder (ADD). In approximately half the cases a novel label for the mental disability was presented. The retest again employed the MRAI-R, modified to reflect the novel label where necessary. Two $2 \times 2 \times 2$ split plot ANOVA with factors sex of subject (male vs. female), label change (yes vs. no), and education (pretest vs. posttest) were used. Results showed main effects for sex and education, but the effects of label change and all interactions were nonsignificant. Results indicated that, for both disabilities, females tend to hold more positive attitudes and that education about disabilities can improve attitudes regardless of whether a new or old label is applied to the disability.

When scoliosis forced Laughie [pronounced Lockee] Rutt into a wheelchair at 15, he was called a cripple. When he graduated from Acadia University in 1977, he was called physically disabled or handicapped. When he got married in 1981, he was called mobility challenged or physically impaired. Today, in the politically correct '90s, he is "a person

with a disability." Sitting in his downtown Halifax office, sipping tea and swapping jokes with his colleagues, the slight Cape Bretoner says that all he's ever wanted to be called is Laughie (Proctor, 1996, p. B1).

Even though the above illustration refers to a physical disability, similar changes in acceptable labels have also occurred with mental disabilities (Scheerenberger, 1983). One such disability that has fallen into the "cycle" (Hastings, 1994) of re-labelling old terminology is mental retardation (MR). In this study we will examine the effects of education about persons with disabilities and introducing novel labels for mental disabilities in the context of a laboratory simulation. Our theoretical perspective uses the "cognitive miser" conception of schema functioning to generate the hypothesis that changing labels is unlikely to affect attitudes toward mental disabilities. It is expected that education, in the present case, the addition of new information emphasizing the abilities a person with severe mental retardation and his/her similarity to the general public, will more likely affect the schemas and their corresponding attitudes of others. Most interesting is the possibility that the combination of label change and education will facilitate the production of a new schema which would be associated with primarily positive attitudes. However, it is also possible that existing schemas for mental disabilities will be altered to accommodate both the novel label and education. Evaluating this hypothesis is the primary purpose of the present study.

Schemas are bundles of knowledge stored in memory that represent a particular generic procedure, object, event, or social situation (Thorndyke, 1984); schemas are used to process information about social or ethnic groups (Anderson, 1980). The process of labelling people with mental disabilities involves categorizing them into groups according to their most salient characteristics based on assumptions regarding those characteristics (Fiske & Taylor, 1991). Cognitively, these characteristics or variables are arranged into a coherent cognitive structure called a schema (Crocker, Fiske, & Taylor, 1984). Schemas are used as "cognitive tools" to reduce the effort required to perform mental tasks

and to facilitate the organization, structure, and interpretation of new information (Crocker et al., 1984; Macrae, Milne, & Bodenhausen, 1994). However, they may also facilitate recall of false information and events and tend to be resistant to change (Crocker et al., 1984). This property of schema structure helps to explain why inaccurate, prejudicial attitudes develop and, more importantly, why they endure regardless of the labels used.

Terminology for mental retardation has changed many times over the years. Previous terms such as "idiocy," "feeble-mindedness," "mental deficiency," and "mental subnormality" gave way to more modern labels such as "mentally disabled," "mentally handicapped," "mentally challenged" and "developmentally disabled" (Clarke & Clarke, 1985). This "labelling cycle" (Hastings, 1994) is exemplified by a school district that placed children into a special educational program in an attempt to remove the harmful effects of labelling them as "mentally retarded" (Beirne-Smith, Patton, & Ittenbach, 1994). The program, Direct Instructional Systems for Training Arithmetic and Reading (D.I.S.T.A.R.) was publicized with the intent of decreasing the stigma associated with the mentally retarded label. Soon thereafter, negative attitudes associated with the existing label (i.e., MR) transferred to the previously meaningless acronym, in this case, D.I.S.T.A.R. Some concerned citizens pleaded that the program be terminated because they felt D.I.S.T.A.R. was a program for "dumb" kids and other children mocked the students in the program, yelling "DISTAR, DISTAR" (Beirne-Smith et al., 1994, p. 77). Even though the label changed, the underlying attitude remained. It is likely that the negative connotation may be attached to the mental representation (i.e., schema) for a condition, regardless of the specific label utilized.

The evaluative component of a schema is reflected in a person's attitudes. The literature concerning the effects of labelling on attitudes toward MR shows inconsistent results. The majority of studies regarding labelling and MR found that a label has a weak negative effect on attitudes toward persons with MR (e.g., Sparrow, Shinkfield, & Karnilowicz,

1993). These results were more likely caused by the label interacting with such variables as academic performance (Budoff & Siperstein, 1978), behavioural aggressiveness of the target person (Gottlieb, 1975), and one's theoretical position on the conception of MR as being either a developmental delay or a basic difference in psychological functioning (Yeates & Weisz, 1985). Other studies have indicated a strong negative effect of labels (Rothlisberg, Hill, & D'Amato, 1994) but only in specific circumstances and while interacting with other variables (Gottlieb, 1975). Finally some studies showed that labelling may have no effect on attitudes (Aloia, 1975; MacMillan, Jones, & Aloia, 1974). Alternatively, there are studies that report that education about disabilities, in one form or another, has a significant positive effect on attitudes toward an individual with MR (Bak & Siperstein, 1987; Esposito & Peach, 1983; Rees, Spreen, & Harnadek, 1991; Wishart & Johnston, 1990).

Equivocal results also are seen with regard to reported sex differences in attitudes toward MR. Studies reviewed by Yuker (1988) do not consistently show sex differences on attitudes toward MR; rather sampling problems and social desirability are reported as plausible causes for observed differences. However, sex differences are found in various studies of attitudes toward MR (Bak & Siperstein, 1987; Budoff & Siperstein, 1978; Fiedler & Simpson, 1987; and Sparrow et al., 1993). As well, Gilligan's *In a Different Voice* (1982) provides an adequate explanation of why there may be such differences. Gilligan's theory of gender socialization states that females and males are socialized to express different moral orientations that might be evident in responses to attitude scales. Given the inconsistent findings regarding sex differences in attitudes towards MR, sex of the rater was included as an independent variable in this study.

The purpose of this study was to examine the effects on attitudes of two variables: (1) changing the labels used to refer to particular mental disabilities, and (2) education designed to demonstrate the similarities between a specific individual with a mental disability and that of an average person. In addition to MR, attention deficit disorder (ADD)

was also studied to test whether the labelling phenomenon under investigation applies to other disabilities and disorders. As in previous studies (e.g., Rothlisberg et al., 1994), education was provided by using a vignette describing the daily activities of a hypothetical person. Education has consistently been shown to have a positive influence on attitudes, but the labelling controversy continues. Interactions have been cited indicating that the label may have the greatest effect when combined with other variables, such as behavioural aggressiveness of a labelled person (Gottlieb, 1975). We believe that variable interactions (in this case, label \times education) create a new property that is not simply additive in nature and thus demonstrates an effect that would not be observed by itself. Therefore, it is hypothesized that (1) a new label will have little or no effect on attitudes, (2) education will lead to a positive change in attitudes and (3) the combination of a new label and education concerning this new label will generate the most favourable attitudes toward individuals with MR and ADD. We also examined possible sex differences. The methodological approach for the present study was borrowed from experimental social psychology and the process was simulated under controlled laboratory conditions.

Method

Participants

The participants were 168 students from a small University College who were recruited from academic, technology, and trade programs. Participants were 92 males and 76 females; mean age was 21.8 years ($SD = 4.8$).

Recruitment

Instructors of various courses, selected at random from the University College's timetable, were contacted and the study was described to them. Permission was obtained from the instructors to recruit participants from their class. Upon arriving at the testing room, participants were

administered one of four versions of the questionnaire booklet. To ensure similar sample sizes for each of the four versions of the questionnaire, the booklets were distributed consecutively (Version 1 through 4) with the first one chosen at random. Informed consent was obtained on the first page of the questionnaire and participating classes received debriefing feedback sheets following completion of data collection.

Materials

Attitude test. Antonak and Harth's (1994) *Mental Retardation Attitude Inventory-Revised* (MRAI-R) which was used for all attitude assessments. The MRAI-R inventory contains 29 items and includes subscales called Integration-Segregation, Social Distance, Private Rights, and Subtle Derogatory Beliefs. It has been reported that the MRAI-R adequately controls for social desirability responding and has been shown to be a valid and reliable instrument (Antonak & Harth, 1994).

Educational materials. The educational vignette used to describe and label a hypothetical person with a mental disability was based on a description of a severely mentally retarded individual provided by Beime-Smith et al. (1994). The vignette described daily life activities, hobbies, and interests of a person with severe MR. Four versions of the vignette were written to be identical across groups, except for slight grammatical alterations to introduce different labels. The person was described as having mental retardation (Group 1), Zahn-Waxler Syndrome (Group 2), attention deficit disorder (Group 3), or Thivierge Syndrome (Group 4). In Group 2, Zahn-Waxler Syndrome was introduced explicitly as a term replacing mental retardation. In Group 4, Thivierge Syndrome was introduced explicitly as a term replacing attention deficit disorder. Each of the new labels was presented five times within the vignette in an effort to enhance usage of the new terminology. Whereas prior studies have compared existing labels (e.g., "mental disability" and "mental handicap"), the present study used novel labels to examine associations between new and existing labels.

Design

A $2 \times 2 \times 2$ split plot ANOVA with factors, sex of the participant (male vs. female), label change (yes vs. no), and education (pretest vs. posttest) was used. The study was composed of three main parts: an attitude pretest, an educational vignette that emphasized the abilities of a person with a mental disability, and an attitude posttest. All participants received the same 58-item pretest questionnaire that included 29 MRAI-R items assessing attitudes toward MR and the same 29 MRAI-R items revised to assess attitudes toward ADD. The 58-items were presented in a random order.

Procedure

First, the participants filled out the MRAI-R. Then they read one of four educational vignettes (see Appendix) describing a person named "Marty" (taken from Beirne-Smith et al., 1994) that emphasized his abilities (e.g., he held a job, enjoyed sports, and lived in an apartment with roommates). The label referring to Marty was the only the difference among the vignettes. Participants in Group 1 ($n = 44$) were told that Marty was mentally retarded. Group 2 ($n = 43$) was told that Marty was mentally retarded but that there was a new term for the condition, "Zahn-Waxler Syndrome." Group 3 ($n = 39$) was told that Marty had attention deficit disorder. Group 4 ($n = 42$) was told that Marty had attention deficit disorder but that there was a new term for the condition called "Thivierge Syndrome." The posttest was then presented. For all participants, the posttest was comprised of a 29-item attitude scale (MRAI-R) which was worded to suit the label used in the vignette. Demographic questions (age, gender, university or college program, and education) followed the posttest.

Immediately following the vignette, preceding the posttest, participants completed a five-item, open-ended comprehension test. Three of the items questioned story content. A fourth item asked, "What condition

does Marty have?" For groups 2 and 4, a fifth item asked, "What was the previous name for Marty's condition?" Correctly responding to both these questions verified the label change. Only one participant had two incorrect responses that resulted in discarding his or her data.

Results

Before considering the main results of the study, it was necessary to examine the reliability of the MRAI-R, especially when worded to refer to ADD. First we examined the consistency of the responses to the items for the two conditions. To do this, scores for each item referring to MR were correlated with the same item worded to refer to ADD. The minimum item-item correlation was $r = .23$ and the median correlation was $r = .50$, indicating consistency between scores for MR and ADD. Next, we examined the internal consistency of the MRAI-R using Chronbach's alpha. For pretest scores, the reliabilities were comparable (ADD = .89 and MR = .90) and replicated Antonak and Harth's (1994) findings. These results indicate that the scale produces reliable scores when worded to refer to MR or ADD.

Two, $2 \times 2 \times 2$ split plot ANOVAs with factors sex of the participant (male vs. female), label change (yes vs. no), and education (pretest vs. posttest) were performed. One ANOVA tested attitudes relating to mental retardation, while the other examined ADD. Analysis of the data for the MR groups (Groups 1 and 2) demonstrated main effects for education, $F(1,70) = 8.83$, $p < .01$ and sex, $F(1,70) = 5.37$, $p < .05$; there was no significant main effect for label change or interaction. The ANOVA for the ADD groups (Groups 3 and 4) also demonstrated main effects for education, $F(1,70) = 20.10$, $p < .01$ and sex, $F(1,70) = 10.34$, $p < .01$. Again, there was no significant main effect for label change or any interaction. Effect size estimates (eta-squared) showed that education produced the strongest effects, and that the effects of both education and sex were stronger for ADD than for MR. The overall tendency was for females to have more positive attitudes than males, and for attitudes to be more positive on the posttest than on the pretest.

Finally, two planned comparisons (*t*-tests) were conducted to test for possible labelling effects on posttest attitude scores. There was no significant difference in attitude between the new label "Zahn-Waxler Syndrome" and the old label "Mental Retardation," $t(75) = 1.00, p > .05$, or between the new label "Thivierge Syndrome" and the old label of "attention deficit disorder," $t(74) = .46, p > .05$. Figures 1 and 2 illustrate the similarity between attitude scores for the new and old labels.

Discussion

This investigation demonstrated that even very brief information about the capabilities of persons with MR can result in more positive attitudes. The findings also suggest that changing the label assigned to a mental disability, such as MR or ADD, will itself not improve attitudes. Furthermore, no support was found for an interaction between a new label and education. Additional results show sex differences, with females possessing generally more positive attitudes toward both MR and ADD than males. Finally, the current study demonstrates that the MR/IR can be adapted successfully to refer to other mental disabilities, specifically ADD.

Providing education through vignettes that demonstrate the similarities between an individual with a mental disability and an average person appears to create improvement in positive attitudes toward both MR and ADD. This is consistent with the results reported by Yeates & Weisz (1985). Education in one form or another has been demonstrated to improve attitudes toward MR (Bak & Siperstein, 1987; Esposito & Peach, 1983; Rees et al., 1991; Wishart & Johnston, 1990). This result may be explained by the process that occurs when schemas change. The cognitive structure of a schema is comprised of several variables that may be changed when a schema is activated. These variables can be modified as new information is learned and ultimately alter the structure of a schema (Crocker et al., 1984). As participants in this study read the vignettes, their schemas for MR or ADD were activated. This opened the existing schema structure to possible alteration in order to

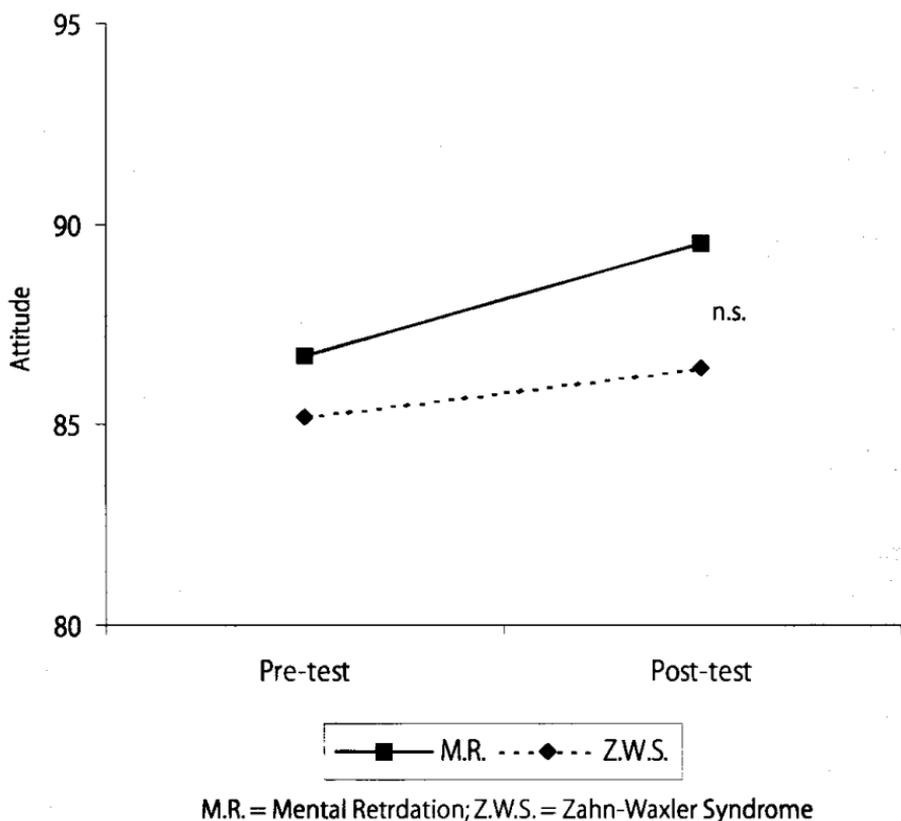


Figure 1

Effects of education and labelling on attitudes toward mental retardation

accommodate new information (i.e., the capabilities of the individual described in the vignette). Less cognitive work would be required to modify an existing schema for MR or ADD than would be required to create an entirely new schema.

The present results do not support the notion that changing labels for mental disabilities has an effect on attitudes. Whereas one must be cautious in interpreting nonsignificant results, the stability in attitudes can be addressed. If we are "cognitive misers" and resist extra mental activity, as social-cognitive research suggests (Fiske & Taylor, 1991), then it is likely that participants simply employed their existing schema for MR when presented with the new label, Zahn-Waxler Syndrome.

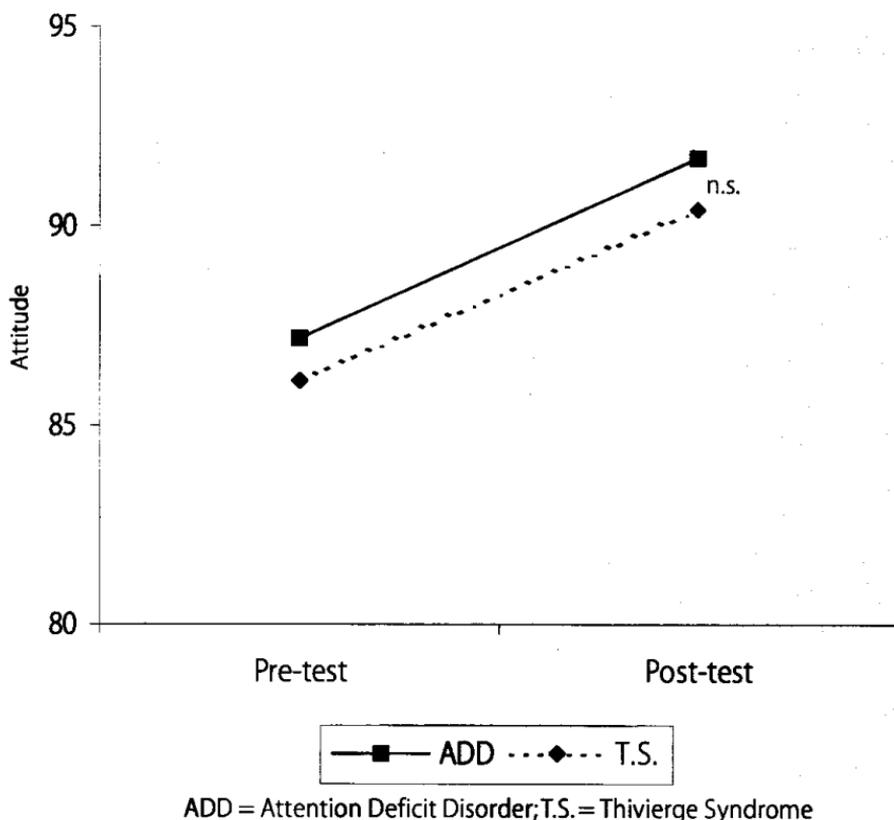


Figure 2

Effects of education and labelling on attitudes toward attention deficit disorder

Similarly the label applied to the schema for ADD might change to Thivierge Syndrome; however, the basic structure of the schema remains intact. In order to save cognitive energy (Macrae et al., 1994), new labels become directly associated with old labels. This also explains why new labels, even with their more positive connotations, so quickly become regarded negatively (Hastings, 1994).

The expected interaction between education and labelling was not supported by the data. This result was particularly interesting because it was hypothesized that this interaction would create the most positive attitudes. It was believed that a new schema might be created for the labels Zahn-Waxler Syndrome and Thivierge Syndrome because new

information (i.e., education) was associated with these novel labels. The reason for the non-significant interaction may be explained by the possibility that, in this case, less cognitive energy was required to replace the schema label than to create a new, distinct schema. The new information provided in the vignette could be assimilated into the existing schema, leading to more positive attitudes. This result mirrors the pattern of results obtained in previous research using authentic, community-based interventions and helps explain the futility of the "labelling cycle" (Hastings, 1994).

It was found that female participants responded with more positive attitudes than male participants. Previous studies of attitudes toward mental disabilities have shown similar gender differences (Bak & Siperstein, 1987; Budoff & Siperstein, 1978; Fiedler & Simpson, 1987; and Sparrow et al., 1993; however, see critiques of studies of gender differences by Yunker, 1988; and Jones, 1984). These differences may be explained by applying Gilligan's (1982) theory of gender socialization which states that females and males are socialized to express different moral orientations. In comparison to males, females are more often taught to nurture others and, therefore, are more likely to express sensitivity and empathy as exemplified in their responses to the attitude scales about persons with disabilities.

Although the present results can be adequately explained using the theories discussed above, the experimental design used here is open to other interpretations. Using a pretest-posttest design allows for the possibility of "testing" effects or demand characteristics (Myers & Hansen, 1997). Testing effect refers to the phenomenon that taking a test on more than one occasion tends to produce better scores on subsequent tests. This might explain the increase in attitudes observed in the present study. However, for approximately half of the participants, the items were changed to incorporate the novel label with virtually no effect on the difference in attitude scores. As for demand characteristics, it is possible that participants felt that they must provide more positive attitudes after reading the educational vignette. We suspect that those given the

novel label might have been under even greater demand to show improvement in their attitudes. If this were true we would expect an interaction between labelling and education, but this did not occur. These potential problems cannot be ruled out completely and readers should be aware of potential alternate interpretations. It also should be noted that this study was a highly controlled, laboratory-based experiment and it is not intended to be a test of the effects of a large scale intervention such as an education program.

The results of this and other studies suggest that changing labels may not be a productive way to reduce stigma associated with various labels for MR. MacMillan et al. (1974) cautioned that research outcomes are not attributable "... to any one independent variable such as the label" (p. 251) and keep in mind the "complexity of the labelling phenomena" (p. 252). The present study provides one more piece of evidence that suggests it is of questionable utility to re-invent labels and expect a significant improvement in attitudes. Historically, it appears that the stigma associated with labels (e.g., MR and ADD) does not disappear simply by changing the offensive labels. The stigma appears to be closely associated with the schema for the condition. When individuals are presented with a new label for a mental disability, they continue to employ their existing schema for that disability and can simply change the name of the schema. The stigma associated with mental disabilities endures because schemas facilitate recall of both correct and incorrect information consistent with the schema and this resists change. However, in spite of this, attitudes toward mental disabilities in the community have improved over time (Rees et al., 1991). As these findings and others (Bak & Siperstein, 1987; Esposito & Peach, 1983; Wishart & Johnston, 1990) indicate, this improvement may be more likely the result of education and exposure which has modified peoples' schemas to some extent rather than changing labels. Therefore, it is recommended that effort should be invested in educating people about disabilities, instead of confusing them with new terminology.

The results of this study may have practical implications. It has been

found that attitudes can be made more positive by introducing positive information (i.e., the capabilities of a labelled person) into an individual's schema. Clinicians might assess the parents' knowledge of relevant disabilities (e.g., mental retardation) and provide accurate information which emphasizes positive qualities and characteristics of these conditions. This effort theoretically would alter the parents' schema, thus producing more favourable attitudes towards their children who have disabilities. Similar efforts could be made by curriculum designers and educators in the school system.

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Appendix: Example of a Vignette

For those who have not had the opportunity to know individuals with severe or profound mental disabilities, the mere thought of these conditions conjures up thoughts of state hospital wards or county homes filled with low-functioning people who sit motionless, or wander aimlessly around white-walled rooms with little to do. Although these nightmarish settings do exist in some parts of the world, persons with severe or profound disabilities can be viable members of today's society. The pictures mentioned above come, in the majority of situations, only from bad dreams or from memories of bygone days, when our technology and educational achievements were more primitive. In keeping with the modern approach to mental disabilities, new terms have been proposed to describe certain conditions. Recently, Zahn-Waxler syndrome has been proposed to replace mental retardation.

Marty is twenty-four years old and has a severe form of Zahn-Waxler syndrome. He shares an apartment on Sydney's North Side with two other individuals, one of whom has a disability. Marty gets up each weekday morning and assists in meal preparation, eats breakfast, and helps clean up. Although he has a severe form of Zahn-Waxler syndrome, he walks with one of his roommates to the bus stop and takes a city bus about ten miles to his place of employment – Joe's Warehouse restaurant. After arriving there at 9:30 a.m., he cleans the floor and tables and sets up each table in preparation for the restaurant's 11:30 a.m.

opening. He also stocks the work station with silverware, cups, glasses, ice, and napkins, following the picture chart of the stations' layout. He stacks the cooking area with dishes and takes a short coffee break with his coworkers. Once the lunch crowd arrives, he serves ice water to customers and buses tables, sometimes with assistance from kitchen personnel. At about 1:30 p.m. he leaves the restaurant with the lunch all employees receive (Marty's is a light one – he's watching his weight). He meets a friend for lunch in a store across the street and then he walks with his friend to his second job at Kwik Kopy Printers. There he works alongside other employees stencilling brochures, tickets, and business cards. At about 5:00 p.m. he gets a ride home from one of his coworkers who also lives on the North Side. Marty pays the driver one dollar per day for this carpool arrangement.

At home, Marty's duties vary – sometimes he sets the table, at other times he assists in meal preparation or works on cleaning up. After supper he participates in any number of activities: going to a movie or a sporting event with a friend or a roommate; playing catch or frisbee with his roommates in the common area of his apartment complex; swimming in the pool; or just being a "couch potato" when the weather is not conducive to outdoor activities. During the summer, Marty plays on Kwik Kopy's coeducational softball team and is known to drink a beer or two after the game with his teammates. Marty recently joined the YMCA with his roommates and exercises there twice a week.

With his earnings, Marty has been able to do a lot of interesting things. He attends Cape Breton Oilers hockey games, U.C.C.B. hockey and basketball games, has a great stereo, and last year took his first plane trip with one of his friends to a wilderness retreat in British Columbia in a program offered by a Canadian outdoor association. This description of Marty's daily activities (his employment, home life and extracurricular activities) is like that of many individuals. Based on Marty's abilities to be a productive member of society, it is difficult to comprehend that Marty has a severe form of Zahn-Waxler syndrome. Note, the proposal of this new term, Zahn-Waxler syndrome has been implemented in a variety of regions in North America.