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"It's All in the Brain"?: An Invitation to Analyze the Discursive History of the Israeli Neurological Conceptualization of Learning-Disabilities

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Abstract

The intention of this article is to summon up novel thinking about the concept of Learning-Disabilities by scrutinizing the historical and social context in which it is embedded. The first part of the article presents the theoretical underpinnings of the sociological and cultural discourse on the field of disabilities, and reveals the obscurity that surrounds the concept of learning-disabilities through a short historical presentation of the evolution of the discourse and the various critiques that developed from it. In the second part, the researcher examines the definitions accepted in the Israeli disabilities discourse in comparison to that discourse in other countries. In contrast to the united front that the local field presents, it becomes apparent that the global discourse is heterogeneous and is characterized by a variety of opinions and disagreements. In the third part, the researcher examines one idiom which forms the basis for the Israeli disabilities discourse: the etiological one that deals with the connections between the disability and its neurological source. Through a discourse analysis of major texts of the Israeli disabilities field and of interviews with professionals, it becomes clear how central assertions were shaped into "medical and scientific facts", even when their scientific foundations were quite shaky.

Keywords

Medicalization, Critical Discourse Analysis, Historical Analysis, Learning-Disability (Social Construct), Israel, Neuroscience (Rhetorics)

1. Introduction

During the 1960s when the category of learning-disabilities was formed, the field of disabilities referred to a specific clinical condition that distinguished it from lack of success in studies (Kavale & Forness, 1985). Since the passage of time, social, political and economic factors brought about an expanding application of this diagnosis for the population (Kavale & Forness, 1985; Sleeter, 1986), nowadays the proportion of the learning-disabled is estimated to be 10% - 15% of the entire student population (Hedd, 1990). Other estimates consider the proportion of the disabled to be as high as 30% of students (Hedd, 1990; Heiman, 2000).

In tandem with the actual increase in the proportion of those considered learning-disabled, the discourse in customary use in the field acted to create and disseminate statistical and etiological statements about the broad range of the learning-disabled. As Spear-Swerling and Sternberg (1998) put it, it seemed as though a plague causing learning-disabilities had descended on American society.

The Israeli disabilities discourse is based on the idiomatic assumption that learning-difficulties originate in neurological pathology¹. In this instance there are locally no proven medical or research data, yet professionals define the phenomenon of disability in clinical terms (justifying their definitions on American sources). Moreover, the local diagnosis procedures of learning-disabilities are based solely on behavioral and academic indicators (even though the findings are interpreted unequivocally as indicating the existence of neurological pathology).

In the first part of this article, the researcher will lay out assertions from the domain of sociology of know-ledge and of science and from associated research fields: the rhetoric of science and critical discourse analysis of science. Likewise, the researcher will interpolate the historical background for the growth of the discourse on disabilities in the United States, and contemporary critiques of the disabilities discourse will be presented. In the second part, the researcher will discuss the definitions in customary use in the Israeli discourse on learning-disabilities, referring to the American background in which they are rooted. The researcher will also locate the disabilities discourse in a global context which will reveal the heterogeneity and lack of consensus which characterize it despite its being presented in Israel as a monolithic, objective clinical field. In the third part of the article, one discursive idiom in customary use will be analyzed: the etiological idiom that refers to the neurological origins of the disabilities. In this part the researcher will elucidate how major assertions in the Israeli disabilities discourse evolved and were shaped textually and rhetorically so that they became so-called scientific facts.

2. On Social Construction, on the Sociology of Knowledge and on Clinical Knowledge as a Social Product

This article is based on the paradigm of social construction which views reality as a product of processes of social construction (Sismondo, 2010). According to this paradigm, even knowledge that is considered scientific or researched does not represent reality or nature, but rather the socio-political forces and interests that brought about its creation (ibid.).

Insofar as sociology of knowledge relates to the field of disabilities, the historical growth of clinical and research knowledge enabled the construction of learning-disabled subjects and the formation of treatable disabilities able to be supervised. Foucault's (1967) genealogical method that tracked the historical roots and transformations of psychiatric knowledge-power is given empirical expression in the present article through the analysis of the processes of evolution of the etiological idiom in the Israeli disabilities discourse.

The sociology of scientific knowledge examines the discursive methods and the practices by means of which scientists learn about the objects of their research as objects without context (Latour & Woolgar, 1986; Lynch, 1993). This branch of sociology, which challenges essentialist perceptions of knowledge and scientific activity, focuses on processes of argumentation, that is to say the rhetorical and textual methods by means of which scientific truths are formed (Shapin, 1995).

The rhetoric of science (Bazerman, 1988; Gross, 1990) and critical discourse analysis (Gilbert & Mulkey, 1984) undermine the pretensions of scientific writing to be technical, smooth, unemotional, impersonal and factual, and prove that practices of selection, organization and textual interpretation are exerted on it too. The as-

¹An "idiom" is an explicit narrative assumption firmly grounded in the discourse community of experts. The truth of the idiom is not a matter of question for the experts belonging to that discourse community. A similar assertion has been raised by Eyal (2010) who has analyzed the concept of autism as indicating a floating marker lacking any objective reality and suffused with changing meanings.

sumption on which the scientific texts are based, their assertions, terminologies, metaphors and methods of textual construction are rhetorical tools with persuasive effect; even the references, diagrams, formulae, and dry numbers are part of the repertoire of rhetorical tools of the text.

Scholars of the school of social construction argue that clinical knowledge, usually perceived as objective and neutral, is socially constructed (Bury, 1986). According to this social model, the clinical entities are inventions whose origins are social rather than being discoveries that are not connected to them (Sismondo, 2010). By means of scientific ideology, terminology and technology, these clinical entities are formed in the framework of the psycho-medical model that creates an increasing number of behavioral categories able to be clinically diagnosed that are characterized as distinct mental and physical qualities (Conrad, 1992; Zola, 1978).

3. Criticisms of the Learning-Disabilities Phenomenon

At the same time that the learning-disabilities discourse was developing in the United States and was becoming the largest clinical category in special education, criticisms of it were also developing and becoming more sophisticated. According to those criticisms, the penetration of professional terminology into everyday language, technological advances and statistical data created the impression of a consolidated clinical body of knowledge, monolithic and objective, while obscuring the social relationships and the historical and political disputes in which it was embedded. Sleeter (1995) for example, argued that the field of learning-disabilities became established in the United States during the Cold War when the education system was raising educational standards.

The criticisms touch on a variety of subjects perceived as central to the very definition of the field, including the theoreticization of learning disabilities, the etiology, epidemiology, diagnostic boundaries, diagnostic criteria, assessment procedures, therapeutic methods, prognoses, and educational policy (Fuchs, Fuchs, Mathes, Lipsey, & Roberts, 2001; Gerber & Semmel, 1984; Lyon, 1987, 1996; Mercer, King-Sears, & Mercer, 1990). Studies have shown that many of the practitioners in the education system ignored the official definitions and the indicators that were considered objective (Gottlieb, Alter, Gottlieb, & Wishner, 1994) so as to ensure that the students would benefit from assistance in their studies and from other resources to which those diagnosed with learning-disabilities are entitled (Gottlieb et al., 1994; Macmillan, Siperstein, & Gresham 1996, 1998; Shepard, Smith, & Vojir, 1983). Another incentive for diagnosing students as disabled was the schools' needs to display learning achievements in national testing. Granting an exemption to disabled students raised the average grades of the school (Brantlinger, 1997).

Other types of criticism addressed the epistemic assumptions of the field of disabilities and attempted to challenge the claim of objective pathology. In this vein, attempts were made to conceptualize learning-disabilities in alternative ways and to propose new appellations for the phenomenon such as Dysteachia, Dyspedagogia (Lerner, 1985) and Teaching-Disabilities (Bateman, 1974) which placed the emphasis on the immediate educational environment. The critics claimed that most of the learning-disabled did not suffer from an organic problem, but from environmental deprivation (Coles, 1987). Others claimed that the term "learning-disability" should be abolished or, at least fundamentally changed (Algozzine, 1985; Lyon et al., 2001).

Other criticisms from the field of education identified learning-disabilities as organizational pathologies originating in the bureaucratic non-adaptive character of the schools (Skrtic, 1999) and in the medicalization of failure which absolves teachers and the system from accepting responsibility (Christensen, 1999). Learning-disabilities were even presented as a diagnostic scandal (Scriven, 1985), and imaginary disease (Finlan, 1994) and a myth (McKnight, 1982). These claimed that the source of the learning-difficulties lay in the schools themselves, that is in the teachers, the curricula and teaching methods. It was argued that the widespread models of learning-disabilities were characterized by an incorrect reductionist epistemological assumption (Poplin, 1988) according to which learning-disabilities originated internally. There were even those who asserted that labeling students had destructive implications for their self-esteem and social image (Christensen, 1999; Finlan, 1994).

In the recent decade many studies have been published based on a critical discursive orientation that undermine the medical model and the positivistic and functionalistic philosophy on which the disabilities discourse is based. The centrality of the educational viewpoint was emphasized through the creation of subjects susceptible to disciplining, medicalization, objectivization and exclusion (Skrtic, 2005). These studies viewed the phenomenon of disabilities as the product of cultural crafting (McDermott, Goldman, & Varenne, 2006), social construction (Dudley-Marling, 2004), of discursive practices (Artiles, 2004; Reid & Valle, 2004) and of myths (Zuriff, 2007).

The following survey of the criticisms gives just a sampling of the prolific critical discourse in the United

States. This discursive heterogeneity is not consistent with the absence of well-reasoned criticisms in this field in the Israeli academic discourse. Similarly, there is almost no academic literature in Israel that examines learning-disabilities from sociological, anthropological, philosophical, cultural or historical points of view. It can be said that from the discursive viewpoint, the debate on learning-disabilities in Israel is largely technically and scientifically hobbled².

4. The Spread and Historical Development of Disabilities

It is apparent that the discourse on learning-disabilities, including the number of people identified as being disabled, has been growing in recent years. Professionals in the field have improved practices of locating, diagnosing, treating, financing and researching, and according to data provided by experts in academia and the Ministry of Education, at least 10% - 15% of the entire population suffer from learning-disabilities.

The rapid spread of learning-disabilities is not perceived as a phenomenon that requires explanation, and, at most, it is described in the professional literature as a product of the development of knowledge in the field and of heightened awareness about disabilities among the public. Motivations that are not identified as scientific, such as economic and political reasons, are relegated to the sidelines of the discourse as being extraneous to the logic and technology of the field. Ong-Dean (2009) analyzed the political, economic, professional and cultural motivations in the United States that fashioned fertile ground for the consolidation of the learning-disabilities discourse and the popularity which it enjoys. His main assertion was that the channel of learning-disabilities became established in the United States in response to the initiatives and pressure of white parents who were well-off economically and culturally and who wanted to enlist the resources of the education system to help their struggling children. In other words, the formation of the new clinical category served these parents as a mechanism to keep their children in the normative educational framework, while maximizing their learning achievements and reproducing class privileges. Similar findings were evident in the study conducted in Israel (Katchergin, 2012b, 2013). Educated parents from Ashkenazi backgrounds with cultural and economic capital played a key role in the growth of the disabilities discourse. In Israel too, the disabilities discourse served as a tracking channel within the education system for the upper socio-economic class of the population. Children from this population who were identified as having disabilities were granted various concessions and exemptions from learning tasks, were given school resources and positive labeling as intelligent and moral. At the same time, the diagnosticians enjoyed a stable and well-established audience who needed their services, and especially benefited from the scientific seal of approval that justified granting privileges to the children. In another study (Katchergin, 2012a) it was found that the popularity that this field enjoyed arose from being freed from negative labeling. Those diagnosed as disabled were no longer lazy or stupid, but intelligent people with a specific neurological disorder.

The year 1963 is considered the date that the field was founded (Hammill, 1990; Sanders, 1984). The founding of the field is attributed to Samuel Kirk who defined learning-disabilities thus:

A learning-disability refers to a retardation, disorder, or delayed development in one or more of the processes of speech, language, reading, writing, arithmetic, or other school subject resulting from a psychological handicap caused by a possible cerebral dysfunction and/or emotional or behavioral disturbances. It is not the result of mental retardation, sensory deprivation, or cultural and instructional factors³.

The concept was introduced into everyday use in the United States by a pressure group of parents which organized itself in 1963 as The Association for Children with Learning-Disabilities" (Armstrong, 1987; Siegel & Gold, 1982). Thereafter, other parent associations were formed across the United States and an enormous amount of popular literature on disabilities, their origins and their significance were published.

The concept "learning-disabilities" flourished in the territory of special education largely due to the pressure exerted by parents who were seeking ways of smoothing the paths of their children who had difficulty with their studies and whose difficulties had not been explained. The literature that deals with the development of the field of disabilities notes that the parents who contributed to the establishment of the field were white and middle-class (Sleeter, 1986; Winzer, 1993). There are also references to the fact that parents collaborated with experts in special education so as to find a way to prevent their children from being labeled mentally retarded,

²To date, few articles have been written on learning-disabilities in Israel from a sociological point of view. On these studies, see Ayalon and Margalit, 2004; Katchergin, 2012a, 2012b, 2014.

³See the definition of the National Research Center on Learning Disabilities, 2006.

having behavioral problems or cultural deprivation. However, these references were pushed aside. That period is generally described as one in which parents, professionals and public officials joined together in efforts to develop a valid and accepted definition of learning-disabilities (Hammill, 1990) in order to assist their children and reduce their difficulties and their distress⁴.

Since the 1960s many other definitions of learning-disabilities have been formulated and have been used in the contexts and circumstances of each case up to the present.

5. Learning-Disabilities in Israel and the World

5.1. Learning-Disabilities in Israel

The two most commonly used definitions in Israel are that of the (American) National Joint Committee on Learning-Disabilities (NJCLD) of 1994 and that of the American Psychiatric Association (APA) of the same year. The Circular Letter of the Director-General of the Ministry of Education (2003-4/4B) determined that "the characteristics of learning-disabled children are based on the formal definitions accepted by broad circles of professionals in the field of learning-disabilities" (Ministry of Education and Culture, 2003). The two definitions are cited immediately thereafter:

Learning-disabilities is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical skills.

These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction, and may occur across the life span. Problems in self-regulatory behaviors, social perception, and social interaction may exist with learning-disabilities but do not, by themselves, constitute a learning-disability.

Although learning-disabilities may occur concomitantly with other disabilities (e.g., sensory impairment, mental retardation, serious emotional disorders), or with extrinsic influences (such as cultural differences, insufficient or inappropriate instruction), they are not the result of those conditions or influences (NJCLD, 1994)⁵.

Learning-disorders are diagnosed when the individual's achievement on individually administered, standardized tests in reading, mathematics, or written expression is substantially below that expected for age, schooling, and level of intelligence. The learning problems significantly interfere with academic achievement or activities of daily living that require reading, math, or writing skills (DSM-IV, 1994).

Researchers and professionals in the field of disabilities tend to base their definitions on those of the NJCLD and APA so as to reinforce the validity of their statements, and the professional positions that grew up amongst the American pressure groups were cited, translated, and became established in the Israeli field without any critical examination⁶.

A major body, on which the Israeli field of disabilities was nurtured and from which it acquired legitimacy, was the APA. This association has a monopoly on the development of one of the most important indices for characterizing and understanding the world of mental disorders: the psychiatric manual known as the Diagnostic and Statistical Manual of Mental Disorders (DSM). The DSM is a canonical work for the field of learning-disabilities in Israel and is the object of many attitudes, citations and references at conferences of experts in Israel, in research and professional literature and in publications of diagnostic and therapeutic bodies.

And finally, the Learning-Disabilities Unit in the Ministry of Education has adopted two main criteria for

⁴Kirk's definition of learning-disabilities does mention emotional and behavioral disorders as possible factors in these disabilities, but in fact from the very outset of the organization of the field, these potential environmental factors were rejected in favor of the causal factor which was identified as neurological ("cerebral dysfunction" in Kirk's terms). Moreover, those coming after him, in defining learning-disabilities, included emotional or behavioral disorders amongst those termed "non-causal factors" or omitted them entirely from the definition. Nevertheless, the 1963 definition is considered the accepted archetype of the term "learning-disabilities".

⁵See also Forness & Kavale, 2000.

⁶Among the central aspects of these positions we can include the assumption that the origins of the disabilities are neurological and genetic; the assumption that learning-disabilities are permanent (this assumptions allows for the advancement of the claim that a learning-disability is a disorder that can be treated but not cured because of its neurological-genetic base); the assumption that the existence of various disabilities, diseases and disorders does not negate the simultaneous presence of any learning-disability (a claim that is given expression in professional literature in the framework of perceptions that mandate the possibility of co-morbidity); the assumption that conceptualizes learning-disabilities as those that can be found in all age cohorts; and finally, the assumption that learning-disabilities are a heterogeneous accumulation of disorders having varying levels of proximity and distance between them.

identifying learning-disabilities: "a significant, persistent disparity between the learning achievements of the student and the achievements expected of him according to his age and class level"; and "a significant disparity between the learning achievements of the student and his intellectual abilities, as revealed in objective intelligence quotient tests" (Binshtok, 2007: p. 15). These criteria have also been adopted by diagnostic and assistance centers at universities and colleges⁷.

5.2. Learning-Disabilities around the World

In professional and administrative publications the definitions of the two American bodies are presented as "accepted in the world". However, these publications are from the United States only. In a global perspective, there is no automatic acceptance of the category of disabilities as a legitimate clinical category (Al-Hano, 2006). In Australia, for example, the learning disabilities concept with its medical connotations has been replaced by the educational concept of learning difficulties, which is interpreted as less committed to any medical model (Elkins, 2001). In Britain, too, experts prefer to use the term "difficulties" rather than "disabilities" (Wedell, 2001), perhaps out of reluctance to attribute the handicaps of those with problems to intrinsic biological factors alone. Nonetheless, the term learning disabilities in Britain indicates a severe cognitive disability, a synonym for mental retardation. A similar interpretation is widespread in Germany where the term indicates low intelligence (Opp, 2001; Prucher & Langfeldt, 2002). In New Zealand, for many years, there has been reluctance to use the term learning disabilities (Chapman, 1992) and there has been a preference for the term "at-risk students" (Green, 2010)⁸.

The learning disabilities discourse in Israel, by and large, draws a homogeneous picture, static and conventional, of the field even though there are many disagreements and differences regarding the category of disabilities, its conceptualization and the methods of coping with it (Al-Hano, 2006; Oakland, Mpofu, Gregoire, & Faulkner, 2007; Vogel, 2001). An historical and comparative examination reveals a much more complex reality, which breaks down the universal and monumental image of this category. There are considerable differences between countries with regard to the way in which they conceptualize the manifestation of learning disabilities (Oakland et al., 2007) to the extent that it sometimes seems that the various terminologies and practices relate to clinical presentations that differ from one another materially. In the United States, there are differences between the states and the counties in terms of their practices in identifying learning disabilities and their practical significance (Haight, Patriarca, & Burns, 2001; Mather & Goldstein, 2001; Vaughn & Fuchs, 2003; Wong, 2004). Furthermore, the American definitions frequently used by researchers and professionals in Israel are contradicted by competing definitions and are even subjected to acerbic criticism in the American sphere itself (Hallahan & Mercer, 2001; Kavale & Forness, 1995).

The professional field in Israel takes no account of the lack of consensus in the academic discourse in the world in regard to the ways of defining disabilities, their causes and even the essential nature of the manifestation (Shesh, 1996). In effect, the NJCLD and the APA could be referring to two separate clinical entities. Likewise, the certainty with which the abovementioned definitions are presented conceals the fact that, from these sources, no accepted, operative rules for diagnosing disabilities can be derived; indeed the methods by means of which the learning disabled are located and diagnosed are manifold and ever-changing.

6. Analyzing the Etiological Idiom in the Learning-Disabilities Discourse

6.1. Methodology and Corpus Selection

The current section is based on a rich textual corpus which includes Israeli professional and academic literature about learning-disabilities (*Lekuyot Lemida* in hebrew). The material selected for analysis included texts which were regarded as central (canonical) in this field as well as other texts (from the 60' till the 90' of the previous century). The earliest of the analyzed texts were published during the sixth decade of the twentieth century (concomitant with the inception of the LD field in Israel). The selection of the learning-disabilities literature and the delineation of the corpus for the purposes of the current section were made in two ways. First, with regard to

⁷These disparity criteria have been the subject of many criticisms in American literature too. See, Kavale & Forness, 1995; Peterson & Shinn 2002. In Israel these criteria are still formally and unequivocally accepted as valid.

⁸The term learning-disabilities was not officially used in New Zealand, but in recent years there has been a change in the policy of the Ministry of Education there. For example, since 2008 the New Zealand Ministry of Education has recognized dyslexia as a specific (medical) condition requiring professional treatment (Green, 2010).

learning-disabilities, a thorough archival scan was made in the various Israeli academic education libraries. Thereafter, all the texts which included learning-disabilities (as well as brain-damage) as their subject were selected. Second, interviews were conducted with various didactic-diagnosticians who were asked to state what, in their view, were the most important Israeli (canonical) texts in their field of expertise as well as what written texts had influenced them the most professionally. Following a triangulation of the interviewees' answers, additional specific texts were selected and further archival work was conducted in order to locate those texts whose authors were mentioned in the interviews as being central figures in the Israeli learning-disabilities field.

6.2. The Etiological Idiom

Since the inception of the disabilities discourse, there has been a widespread claim that the origin of the disabilities was neurological. The perception that learning problems were rooted in neurology became a professional assertion deriving its validation from scientific evidence and professional literature.

However, as early as the 1960s, as the field developed, cracks began to appear in these claims, and even the choice of the term "learning disability" as a substitute for terms like "brain damage" and "brain defect" indicates an attempt to distance themselves from any association with harm to the brain: "The adoption of the term learning disability... is likely to release the researchers from a fruitless polemic and to turn their attention in a more valuable direction" (Arazi, 1972: p. 11). Because it is difficult to determine the neurological origins of learning difficulties, Arazi considered that the connection to the brain should be suppressed in naming the manifestation. She did not negate the possible existence of a neurological link, but she argued that the lack of evidence prompted arguments and disputes which were better avoided. Widespread terms like "brain damage" were considered problematic, "The disagreements start with the question whether we are permitted to talk of brain damage when, in most cases, we have no possibility of verifying or confirming the existence of the damage or neurological injury by using the customary tests available to us" (ibid.). Kidron (1972: p. 25) also states, "There is a widespread notion that these disabilities are grounded in damage to the central nervous system, but the location of this damage, its character, and extent are, by and large, absolutely unknown to us. But, despite Kidron and Arazi's reservations, they themselves subscribed to the advancement of the claim about injury to the central nervous system.

Spector (1979: p. 11) defined learning disabilities as "a group of disabilities in those brain functions requiring learning and adaptation" and noted that

Terms like "brain injury", "defects in brain function", "minimal brain damage" and others, for many years, formed the basis for an argument between researchers. These had difficulty in locating the injury and in accurately defining the outcomes, in cases where the neuro-motor system was not directly involved in the injury.

Simpson (1985: p. 12) added, "No one knows exactly what type of children are involved in the discussion", and he lamented "the confusion and the difficulties in the existing terminology in the field." His opinion was that the term "minimal brain damage" had no less than 99 indicators and characteristics, and a considerable number of characteristics were found to contradict one another. He harshly criticized the use of the term "brain injury" which was widespread at the time, claiming that the term,

was created owing to the mistaken approach that was based on vague historical evidence and on coincidental differences... In the light of these considerations, the term "brain-damaged child" will be replaced by the term "learning disabled child". This means that these children have special learning problems that are likely to differ from one child to another (ibid., p. 15)¹¹.

The researchers noted the advantages of the term "learning disability" and realized the disadvantages of the concepts that had preceded it. Nonetheless, it is evident that the criticism leveled at the previous concepts could just as well be leveled at the concept "learning disability". One of the main objections to the previous concepts was the lack of evidence about the existence of damage, injury or brain disorders. This lack of evidence

⁹Brain-damage was one of the most popular terms that predated the learning-disabilities terminology in Israel.

¹⁰Among the most prominent of these writers are Rivka Kidron, Shimeon Simpson, Shlomo Sharan, Yael Sharan, Ali Darin and Rafael Balgur.

¹¹This statement is of great importance, for Prof. Simpson headed the department for special education at Bar-Ilan University for many years He had great influence on training and shaping the professional views of many cohorts of researchers and future practitioners.

prompted the researchers to emphasize the rehabilitative aspect of the field of disabilities, and to occupy themselves less with the etiological sources of the definition of learning disorders.

So it seems that there is no point, and perhaps there is even some harm, in calling these children brain damaged. It seems to us that, for now, it is better to make do with the term "learning disabled" and to keep to the accurate educational description of the disabilities as they are revealed in behavior. (Sharan & Sharan, 1969: p. 13).

In the same spirit, Kidron (1988: p. 5) argued, "whatever the researchers' attitude to his subject is, educators have no faith in the causal-etiological approach... but rather in the educational-therapeutic approach which emphasizes remedial teaching and possibilities of helping the child".

And indeed, at the same time, the researchers were preserving the etiological-biological assumptions to which they had objected. Sharan and Sharan (1969: p. 7) cited Kaufman, according to whom the term "learning disability" does not exclude the basic assumption that the origin of the deficiency is in the brain.

Despite the widespread custom of referring to these children as having "organic damage on a minimal level", to date we do not know for certain where the neurological damage is located and its quality and extent. Therefore, there is justification for the approach taken in this book which disregards the accepted but inaccurate label of a "child with organic damage to the brain" and prefers to focus on detailing the neuropsychological functions that were affected.

Sharan and Sharan added (ibid., p. 13) that that "there is an accepted notion the these disabilities are rooted in an injury to the central nervous system" but they conditioned this in saying that "the location of the damage, its nature and extent are, by and large, not known to us at all". Sometimes "there are likely neurological signs that are evidence of the existence of damage to the central nervous system" but the text does not clarify what these "likely signs" are. Sharan and Sharan also commented that another reason for the subsidiary nature of the attitude to etiology is the dearth of contemporary scientific knowledge, but they clarified that "science is likely to do much in the course of time to unravel the complicated conglomeration of behavioral problems associated with brain damage (ibid., pp. 13-14). Similar claims were posited by Kauffman (quoted in Sharan & Sharan, 1969: p. 9), "Under the present conditions of science, medicine is not able to recognize these functions [of learning disabilities] so as to treat them by means of any neurological therapy." In this sense, he is supporting the theoretical-educational approach while, at the same time, alluding to a possible future solution to be provided by the field of medicine.

Kidron too (1988) outlined the neurological standpoint of learning disabilities experts while simultaneously erecting a dividing line between the old-fashioned discourse on brain injury and the discourse on learning disabilities. Notwithstanding her assertions that "educators do not subscribe to the causal-etiological approach" (Kidron, 1976: p. 5; 1988: p. 5), interspersed in her works are causal assumptions and descriptions aplenty. For example, in her attempt to present the "diverse points of view of those active in the field" she does indeed describe the controversies that have erupted in the present-day disabilities discourse, but she has reduced them to disputes between various neurological paradigms (1988: p. 6):

In a group of people with learning disabilities, do we include only children with diagnosed brain damage as those subscribing to the medical-neurological approach argue? Should children with disabilities in brain function be included, although, in many cases, it is impossible to find diagnosed brain damage in them? Children defined as having minimal brain damage? Should we include in this group children suffering from developmental backwardness?... The difference in attitude to the definition is directly connected to the various approaches to differentiating diagnostics. On what basis is the child determined as belonging to the learning disabled group? Does there have to be inanamnesis a history alluding to the possibility of the existence of brain damage (physical, toxin-based, or other)?... Or perhaps is it enough to make do with the existence of behaviors and symptoms...that are characteristic of learning disabilities, even when there is no incontrovertible evidence or at least clear indications of brain damage?

This ambivalent attitude to the place of the biological element can be found in writings about dyslexia, which today is considered the most common type of learning disability. Balgur (1977: p. 147), one of the most senior Israeli researchers on reading reported that "In recent years there has been an increased interest taken by medicine in researching severe reading disabilities, especially in light of the direct and indirect connection found in

these areas that are defined as somewhere between disorders of the organism and decrease in the quality of reading." In relation to dyslexia he admitted that "at present researchers are not in complete agreement about the meaning of dyslexia, its etiology and the syndrome" (ibid., p. 203). Nonetheless, in his view, it is possible to use this term because it is in widespread use amongst researchers even if they are not precise. Balgur even states that it is not yet clear whether dyslexia is hereditary. He compared four theories dealing with this phenomenon which he considered central on the basis of "empirical findings about the etiology and symptoms of dyslexia and its therapeutic methods" (ibid., p. 206), as well as according to experts' discussions. However, here too, the theoretical comparison was confined to the neurological dimension 12. So Balgur had doubts about the neurological etiology of dyslexia and about its being hereditary, but still expected medical science to have a future in the field of disabilities.

In this way the discourse on disabilities came to negate the explicit neurological assumptions that had been accepted by the experts, and at the same time reformulated the neurological assumptions more delicately. This softening of the etiological foundations made it possible to more easily integrate the concept of learning disabilities both amongst professionals in the field and amongst the population that need treatment, in contrast to the definitions that were rooted in the heart of the previous research and therapeutic discourse, such as "brain damage".

It seems, therefore, that in the softened terminology of the disabilities discourse lie the seeds of its success. Professionals whom I interviewed noted that the term learning disability is not perceived as threatening in contrast to other clinical diagnoses, and makes it possible to conceal the presumed neurological source of the disability. The interviewees explained that this fact made it easier for the parents of the children to accept the diagnosis about the disability. The professionals also said that they did not have the tools they needed to really identify the brain damage, but they nevertheless chose to explain the source of the student's difficulties as neurological, rejecting social, cultural and environmental explanations.

In the second half of the 1990s, Shesh (1996: p. 20) argued that the assumption about the existence of brain dysfunction as the basis for learning-disabilities is very much in dispute and "no one disagrees with the idea that only for a small minority of those tested and diagnosed as suffering from a learning disability is there an unequivocal finding (clinical-medical, independent) of a problem with the brain." Kavale and Forness (2003) stated that there is a considerable difficulty in measuring and validating the assumption about the existence of brain dysfunction¹³. Their view is that a distinction should be drawn between the two population groups of the learning-disabled: a limited population of those with neurological diagnoses and a huge population of students who have been defined as disabled on the basis of their learning-difficulties only. In this way, the scientific validity of the term "learning-disability" is preserved, while, at the same time, it is disregardedinsofar as it relates to the masses of children with difficulties in schools and defined as learning-disabled. Similarly, Torgesen (2004) distinguishes between "the science of learning-disabilities" and "the politics of learning-disabilities". He is of the opinion that the science of disabilities encompasses real, objective knowledge, whereas the politics of disabilities, promulgated by social movements and economic bodies, is responsible for the inflated proportions of those defined as learning-disabled. He also notes that even the harshest critics of the field are willing to acknowledge that at least for a minority of children who display learning-disabilities, it is likely that specific neurological disabilities will be found. He thinks that the big question was to what extent, and even if, there is an overlap between this limited group of pathological cases documented in scientific literature and those millions diagnosed as learning-disabled on the basis of difficulties in their studies. It appears that professionals dealing with diagnosis of learning-disabilities based on educational and behavioral indicators have neither the possibility nor the need to prove the neurological origin of the disabilities.

That being the case, the term "learning-disabilities" is a rhetorical tool intended to aid and integrate the disabilities discourse in Israel while suppressing previous terms such as "brain damage" and "brain dysfunction" which have negative connotations and imply low intelligence. The claims about brain damage are usually not supported by empirical evidence, and in most cases the cause of the learning-disability is unknown (Levy, 2009).

¹²Balgur (1977: p. 206) put this very well: "That which is common to the theories [secondary-dominant; neurological disorders; minimal disorders in brain function; retarded maturation] is greater than that which differentiates between them to the point that it is difficult to determine where one ends and the other begins."

¹³It is interesting to note that in contemporary medical literature itself there are claims that the assumption of neurological dysfunction as the etiological basis for learning-disabilities is too simplistic (Fletcher & Lyon, 2005). Even the claim that internal factors (such as brain disability) can be directly concluded from behavioral tests, from "soft" neurological signs and from other indicators is misleading (ibid.). Moreover it is acknowledged that in many cases the environment plays a significant role in the etiology of learning-disabilities (ibid.).

The vast majority of those diagnosed as learning-disabled are not required undergoing a neurological examination, and the diagnosticians make do with behavioral and educational indicators. Nonetheless, the low grades of the student being diagnosed are interpreted as being the result of neurological damage. This is the situation that obtains in the field of diagnosis and treatment. In the research field, however, efforts are being invested in isolating the neurological and genetic origins so as to link medical findings with various types of learning-disabled persons.

7. Conclusions

The intention of this article is to expose the vagueness enshrouding the term "learning-disabilities", through the use of textual analysis and by means of sociological tools of knowledge and science and tools from related fields like the rhetoric of science and critical analysis of scientific knowledge. In the arena of research and treatment in Israel, this term is used to indicate the existence of a distinct clinical category, uniform and objective. But in comparison to the global discourse it is clear that the Israeli definitions are simplistic and that, in effect, the field of learning-disabilities is fraught with disagreements and features discursive heterogeneity.

On the background of the cultural contexts in which the field is situated, it was found that the neurological idiom not only reflects essential claims, but it is a rhetorical tool whose aim is to buttress the field's legitimacy and the practices customarily used in it. This idiom has become part of the obvious aspects of the research and professional debate, and it is possible that the reason for this is the symbolic capital associated with working assumptions originating in the United States.

The present article has focused on analysis of scientific texts and interviews with professionals and there is a need for additional studies to examine the ways in which the disabilities discourse is put into practice in the Israeli field of education. An examination of this kind will necessitate the uncovering of the interrelations between the discursive idiom and the broad contexts and social and professional interests. For example, an examination should be undertaken of how the etiological idiom was shaped into a scientific fact in Israel on the backdrop of neo-liberal economic trends and the tendency to medicalize the field of education.

To use the terms of the scholar of critical discourse, Fairclough (2003), the article illuminates the textual dimension and the discursive dimension of the field of disabilities. Future studies are likely to examine another dimension—that of the social practices and the broad contexts of the discourse. There is a need to continue to examine the way the field of education operates, to accept the texts and idiom examined in this article, and to uncover the influence that cultural, economic and professional forces have on the field of disabilities.

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