CHAPTER THREE

Expansion

From Hyperactive Children to Adult ADHD

A wide range of new medical categories have emerged in the past four decades: attention-deficit/hyperactivity disorder, anorexia and eating disorders, chronic fatigue syndrome, repetitive strain injury, fibromyalgia, premenstrual syndrome, posttraumatic stress disorder, and multiple chemical sensitivity disorder. Many of these diagnoses have been promoted actively by individuals and their advocates, with some achieving substantial medical acceptance while others remain contested or controversial (M. Singer et al., 1984). By the close of the twentieth century, patients have become more engaged in their own treatment and more demanding in what they want from physicians (Guadagnoli and Ward, 1998), and less tolerant of mild symptoms and relatively benign problems (Barsky and Boros, 1995).

There are numerous reasons for seeking new medical diagnoses. Life's troubles are often confusing, distressing, debilitating, and difficult to understand. Michael Balint (1957) pointed out many years ago that a medical diagnosis transforms an "unorganized illness," an agglomeration of complaints and symptoms that may be unclear, unconnected, and mysterious, into an entity that is a more understandable "organized illness." As Broom and Woodward (1996) show with chronic fatigue syndrome, those with the disorder will often seek a diagnosis, which will both legitimate their troubles and provide them with an understanding of their problem. In some instances a diagnosis can be a kind of self-labeling that provides a new public identity as an individual having a particular illness or disorder. In other cases it may facilitate medical treatments that can have a substantial impact on individuals' lives. When these occur, it is hardly surprising to see individuals embracing medicalization.

The emergence of so many new medical categories raises the question of what happens with them over time. It is likely that some just become an established part

of regular medical practice. Others may be challenged, disappear, or become vestigial from disuse, while others may expand in new ways. Medical diagnostic categories, perhaps especially psychiatric categories (Horwitz, 2002), are often fluid and subject to expansion or contraction. The expansion of established diagnoses is especially interesting, for it can occur almost unnoticed as a part of regular medical practice and at the same time expand the realm of medicalization in significant ways. To examine this phenomenon, we can find a similar process in the social constructionist frame for studying social problems.

"Domain expansion" describes a process by which definitions of social problems expand and become more inclusive (Best, 1990; Loseke, 1999). Domain expansion encompasses claims-making work that extends the definitional boundaries of an established social problem to include similar or related conditions. Joel Best (1990) examined the emerging definitions of child abuse and found that "by 1976, the issue encompassed a much broader array of conditions threatening children. The more general term 'child abuse' had replaced the earlier, narrower concept of 'battered child' and the even broader expression 'child abuse and neglect' had gained currency among professionals" (1990: 67). Valerie Jenness (1995) argued that activism by the gay and lesbian movement brought attention to the scope and consequences of anti-gay and lesbian violence. She suggests that domain expansion accompanied social movement growth and was key in reframing violence against gays and lesbians as a "hate crime" and as a specific public issue in the United States. While domain expansion need not always be linked to a social movement, the activities of champions and claims-makers are likely to be critical to the expansion of definitional boundaries.[1] Here I use the term "diagnostic expansion" in a similar fashion: how once a diagnosis is established, its definition, threshold, or boundaries can be expanded to include new or related problems or to incorporate additional populations beyond what were designated in the original diagnostic formulation.

This chapter focuses on the emergence of the diagnosis of attention-deficit/hyperactivity disorder (ADHD) in adults in the 1990s. How did hyperactivity, which was deemed largely a disorder of childhood, become adult ADHD? This research follows on my study of the medicalization of hyperactivity published in the 1970s (Conrad, 1975, 1976). Our interest here, however, is also to investigate this case as an example of how medicalized categories, once established, can expand to become broader and more inclusive. This category expansion is one means for increasing medicalization and provides us with an opportunity to explore how this aspect of medicalization operates. This chapter focuses on key claims and counterclaims made by mental health and medical professionals, as well as lay leaders, support groups, and conferences.[2] After reviewing the state of childhood hyperactivity as a

medicalized diagnosis in the 1970s. I trace the emergence of "adult hyperactives" among those whose childhood symptoms persisted into adulthood, and then examine how this label was transformed into the category "ADHD adults." I show how lay, professional, and media claims helped establish the expanded diagnosis. I identify particular aspects of the social context that contributed to the rise of adult ADHD, and then outline some of the consequences of the medicalization of ADHD in adults and the social implications of expanding diagnostic categories.

THE DSM AS A CATEGORICAL TOUCHSTONE

Psychiatric diagnoses are historically and culturally situated. Certain diagnostic categories appear and disappear over time, reflecting and reinforcing particular ideologies within the "diagnostic project" (the professional legitimization of diagnoses) as well as within the larger social order (Cooksey and Brown, 1998: 550). As numerous researchers have noted, psychiatric diagnoses are not necessarily indicators of objective conditions but are a product of a negotiated interactive process influenced by sociopolitical factors (Kirk and Kutchins, 1992; Caplan, 1995; Kutchins and Kirk, 1997; Cooksey and Brown, 1998). Diagnoses related to behavior or involving cognitive symptoms are frequently contested or controversial, and thus diagnosis of "functional diseases" can "represent an implicitly negotiated solution to the problem of idiosyncratic suffering that is not explainable by specific pathology" (Aronowitz, 1998: 16).

Most psychiatric disorders gain legitimacy in the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* (DSM), the official guidebook for psychiatric diagnoses. Although the DSM does not contain all medical diagnoses, it can be seen as a repository of medicalized categories, especially those having to do with behavior. Despite its claims to psychiatric authority, it is not a scientific document but a "mix of social values, political compromise, scientific evidence and material for insurance forms" (Kutchins and Kirk, 1997: 11). As the authoritative voice of psychiatry, the DSM has been used as a mechanism to "secure psychiatric turf" (Kirk and Kutchins, 1992) and to sanction psychiatric categories.

The various revisions of the DSM have reflected distinct approaches taken by mental health professionals toward understanding human troubles as psychiatric conditions. In 1952 the original version of the DSM reflected the dominance of psychoanalytic thought and sought to "provide a broader set of labels, which would be inclusive of the whole society" (Cooksey and Brown, 1998: 530). A major shift in psychiatric thinking occurred with the publication of DSM-III in 1980, when the largely psychoanalytic orientation was abandoned and replaced with an avowedly biomedical and categorical approach to diagnosis. "The fundamental premise of

DSM-III was that different clusters of symptoms indicated distinct underlying diseases such as schizophrenia, depression, panic disorder and substance abuse" (Horwitz, 2002: 2). The "diagnostic project" was now heralded as a scientific endeavor, a claim that has increased with the publication of the DSM-IV (1994). This revision identifies nearly four hundred distinct medical diagnostic entities.

The DSM provides a useful touchstone for the sociological task of understanding how behaviors are defined medically, and especially for documenting how criteria for diagnosing a problem change over time and thorough various revised editions. In this way we can track some of the elasticity of a diagnosis such as ADHD.

HYPERACTIVITY IN THE 1970S

Although the roots of ADHD are often traced to early in the twentieth century (Goldman et al., 1998), it emerged as a diagnostic category only in the 1950s (see Conrad, 1975). Among several other diagnostic categories, it was termed at various times "minimal brain damage" or "minimal brain dysfunction" (MBD), "hyperactive syndrome," "hyperkinesis," and "hyperactive disorder of childhood." While there were slight differences among the categories, in practice they were interchangeable. The terms "hyperactivity" and "MBD" were most commonly used.

Beginning in 1968, the DSM-II identified "minimal brain damage" and other problems such as "hyperkinetic reaction" as a childhood disorder "characterized by overactivity, restlessness, distractibility, and short attention span, especially in young children; the behavior usually diminishes in adolescence" (APA, 1968: 50). The disorders were thus defined by both hyperactivity and inattention, two distinguishing features that would persist in various combinations throughout the next thirty years. (See also Stewart et al., 1966; Stewart, 1970; Wender, 1971.) Although this official classification clearly placed hyperactivity within the realm of childhood psychiatric illnesses, it also allowed for the possibility of its persistence into adolescence. For example, hyperactive behavior "usually" (but not always) "diminished" (though not necessarily disappeared) by the time the patient entered adolescence. Without solid evidence of biological causation, there nevertheless was an assumption of some type of organic pathology.

The most significant criterion for diagnosis was a child's behavior, especially at school. Hyperactive and disruptive behaviors were emphasized in identification (Conrad, 1976); thirty years later, behaviors are still the main criteria for identification (Conrad, 2006). The major treatments for hyperactivity were stimulant medications, especially Ritalin. During the 1960s the disorder became increasingly well known, in part as the result of publicity it received concerning controversies about drug treatment. By the mid-1970s it had become the most common childhood psy-

chiatric problem (Cross and Wilson, 1974), and special clinics to identify and treat the disorder were established, although most children were diagnosed by their pediatrician or primary care physician.

While there were no methodologically sound epidemiological studies in the 1970s, it was widely estimated that 3–5 percent of elementary school students were hyperactive (occasionally estimates were as high as 10%); this is compared to the current Centers for Disease Control estimate of 7 percent of children aged 6–11 (CDC, 2002). Frequently mentioned estimates in the 1970s suggested that between 250,000 and 500,000 children were identified as hyperactive; current estimates are 4–8 million children in the United States (Conrad, 2006: xii). The disorder was believed to affect boys more often than girls, perhaps at a ratio of 9 to 1; this ratio has shifted to 3 to 1. Overall, hyperactivity was seen as fundamentally a disorder of childhood, typically identified in the early years of school, and most children were expected to "outgrow" it by adolescence (cf. Rafalovich, 2004).

THE EMERGENCE OF "ADULT HYPERACTIVES"

Beginning in the late 1970s, several cohort studies were published that followed children who had been originally diagnosed with hyperactivity a decade or more earlier and traced their development into adulthood. These studies established that the symptoms of some hyperactive children persisted into adolescence and even into adulthood. Thus emerged the notion of what we can call "adult hyperactives"—hyperactive children who did not "outgrow" their symptoms and still manifested some problems as adults.

Gabrielle Weiss and colleagues (1979) followed 75 hyperactive children and 45 matched controls for fifteen years. They found that clear symptoms persisted for many hyperactive children into adulthood; 66 percent had at least one symptom (G. Weiss and Hechtman, 1986). Most notable was the persistence of restlessness and poor concentration. Despite criticisms that only 60 percent of the children were followed into adulthood, the study remains widely cited (and mis-cited).[3] A second prospective study found that 31 percent were still diagnosable as hyperactive in late adolescence (Gittleman et al., 1985; see also Mannuzza et al., 1991, 1998). A follow-up at young adulthood, however, showed a significant decrease of symptoms, to about one-third the rate reported by Weiss. The media has tended to focus on the higher prevalence rates reported in the Weiss data.

Following the publication of these seminal studies, other researchers (e.g., Biederman et al., 1996) investigated the persistence of symptoms into adulthood to further identify what they believed to be confounding factors (such as comorbidity with

other disorders). These studies reflect the dominant thinking of the late 1980s: any diagnosis of attention-deficit disorder (or ADD, as the disorder was renamed) was found only among adults whose disorder persisted from childhood and thus was *not* a disorder that was either "missed" during childhood or was of adult onset. All ADD adults were hyperactive children who had grown up.

The 1980 update, DSM-III, both reflected and facilitated an interest in hyperactivity beyond childhood.[4] First, in line with the general trend in DSM-III to define disorders by symptoms rather than etiology, the updated manual reclassified the disorder according to its primary symptoms: either hyperactivity *or* inattention. Thus the diagnosis focused on *attention* deficits with two major subtypes: attention-deficit disorder with hyperactivity and attention-deficit disorder without hyperactivity (deemed the less severe of the two categories). The symptoms were focused largely on children's activities (e.g., "runs about or climbs on things excessively," "frequently calls out in class," or "has difficulty concentrating on schoolwork or other tasks requiring sustained attention"). To be diagnosed, patients needed to exhibit symptoms before age 7.

Second, the range of behaviors included within the official diagnosis became more comprehensive. Some symptoms were related to school-based behavior such as "frequently calls out in class," whereas others were more interpersonal and ephemeral in nature (e.g., "often acts before thinking" or "is easily distracted"). These changes in the diagnostic category meant that individuals who may not have "qualified" for a diagnosis of hyperkinetic reaction or minimal brain damage under DSM-II could now be thought of as having ADD under DSM-III. Both subtypes of ADD permitted courses of the disorder in which "all symptoms persist into adolescence or adulthood" or in which "hyperactivity disappears but other signs persist into adolescence or adulthood" (APA, 1980: 42). Thus, the DSM-III definition expanded the diagnostic criteria in terms of necessary "symptoms" while allowing for the possibility for persistence into adulthood.

THE DEVELOPMENT OF "ADHD ADULTS"

In the 1987 revision, the DSM-III-R, ADD was renamed "attention-deficit/hyperactivity disorder" (ADHD) to reassert the condition of hyperactivity as one possible, but not mandated, symptom of the disorder. ADHD enabled children who were hyperactive and impulsive but less inattentive to meet the diagnostic criteria. More than 50 percent more children received the ADHD diagnosis under these criteria (Newcorn et al., 1989). The revised diagnostic criteria did not refer to the disorder in adulthood but opened the door slightly for an expanded definition beyond

"adult hyperactives" to "ADHD adults" who had no childhood diagnosis. For example, the environment in which ADHD symptoms occurred had expanded to the workplace: "In the classroom or workplace, inattention or impulsiveness are evidenced" (APA, 1987: 50). There was less emphasis on school-aged behaviors: "frequently calls out in class" (DSM-III) became "often blurts out answers to questions before they have been completed." Nevertheless, the criterion of exhibiting symptoms before age 7 was retained, and although the revision obliquely acknowledged the possibility of postchildhood ADHD, adult ADHD was not highlighted in the manual.

Early Claims

In this same year that the DSM-III-R was published, two publications aimed at lay readers heralded a new category of "ADHD adults"—adults who had not been diagnosed as children but had had symptoms. Although later claims would be made by those who could not trace their symptoms to their youth, these early claims were made either by or for those who retrospectively could identify signs of ADHD in their childhood.

In 1987, Paul Wender, a longtime hyperactivity researcher, published a book that examined hyperactivity throughout the life span. Although the book was entitled *The Hyperactive Child, Adolescent, and Adult*, only one chapter described adults with ADHD symptoms. Nonetheless, the book targeted a lay audience and would be cited frequently in subsequent years.

The same year, Frank Wolkenberg (1987), a freelance photographer and picture editor, wrote a first-person account in the *New York Times Magazine* about his discovery that he had ADHD despite his apparently successful life. When he sought treatment for depression and suicidal ideation, he was diagnosed with ADHD by a psychologist whose specialty was learning disorders. Wolkenberg then began reinterpreting several clues early in his life (e.g., impulsivity, distractibility, disorganization, and emotional volatility) as signs of the disorder. This highly visible testimony of someone not previously diagnosed with ADHD as a child put the idea of "ADHD adults" into the public realm. No one had diagnosed him as hyperactive as a child, yet now he was attributing "seemingly inexplicable failures . . . all unnecessary and many inexcusable" (p. 62) to ADHD. He suggested that it was a neurobiological dysfunction "of genetic origin," thus attributing his life problems to a chemical imbalance.

As the notion of ADHD in adulthood was filtering into the public awareness, the psychiatric profession was also turning attention to this new problem. Clinics for adults with ADHD were established at Wayne State University in 1989 and two years later at the University of Massachusetts in Worcester (Jaffe, 1995).

In 1990, Dr. Alan Zametkin of the National Institute of Mental Health and several of his colleagues published an often-cited article in the *New England Journal of Medicine*. Using positron-emission tomography (PET) scanning to measure brain metabolism, Zametkin demonstrated different levels of brain activity in individuals with ADHD compared with those without the disorder; these findings provided new evidence for a biologic basis for ADHD. Because of the risks inherent in research involving radiologic images, the researchers used adult subjects who had childhood histories of hyperactivity and were biological parents of hyperactive children. Although this was not Zametkin's intention, his work became one of the key professional sources cited by others to demonstrate the presence of ADHD in adults (e.g., Bartlett, 1990; *Newsweek*, December 3, 1990), because it appeared to bolster claims that ADHD could persist into or develop during adulthood.[5] While the study made national headlines, additional follow-up studies that did not confirm the strength of the initial study's findings received no widespread publicity from the professional and lay press.[6]

Adult ADHD in the Public Sphere

Writing about ADHD as a disorder in adults has been increasing in the professional literature for years. As can be seen in table 3.1, by the mid-1980s there were more than forty articles in the medical literature and about a dozen in the psychological literature published per year (with some overlap). Many of these articles were minor, and nearly all dealt with the persistence of symptoms in hyperactive children as they reached adulthood. The issue of "ADHD adults" per se did not reach the popular media until the 1990s (see table 3.1). But the idea that adults could have ADHD did spread with the help of a moderate but growing number of articles in a variety of media.

In the early 1990s, several books written for a popular audience looking specifically at ADHD adults were published. Psychologist Lynn Weiss (1992) identified her adult subjects as those who were diagnosable with ADHD, not merely grown-up hyperactive children having remnants of the symptoms carried over from an earlier condition. Another popular book quickly followed with the provocative title of "*You Mean I'm Not Lazy, Stupid, or Crazy?!*" (Kelly and Ramundo, 1993). This book emphasized the shift in responsibility that a diagnosis of adult ADHD can bring. Thom Hartmann (1994), writing in a somewhat esoteric but essentially sociobiological frame, associated ADHD with an evolutionary adaptation to the social environment. He likened those with ADHD to hunters (who are nomadic, scanning the environment for sustenance, seeking of sensation, reacting quickly and decisively) adapting

TABLE 3.1
Adult ADHD in the Professional and Lay Media: Mean Articles Per Year, 1975–1999, in Five-Year Intervals

	Professional Media		Lay Media (Academic Universe)		
Years	Medline	PsycINFO	Wire Services	NE Regional	Magazines
1975–1979	34.4	3.4	0	0	0
1980–1984	41.6	7.6	0	0	0
1985–1989	43.6	11.4	0	0.2	0.4
1990–1994	50.0	13.8	5.8	6.0	0.4
1995–1999	95.6	42.6	25.2	28.6	32.2

Notes: For this table, I do not distinguish between articles on "adult hyperactives" and "ADHD adults."
Search criteria for professional media: adult and (ADHD or "attention deficit disorder" or "attention-deficit/hyperactivity disorder" or hyperkinesis).
Search criteria for lay media: in-text search for "attention deficit disorder or ADHD or hyperkinesis" and search in headline or lead paragraph for "adult."
Lay media sources include wire services (e.g., Associated Press, United Press International), New England regional newspapers (e.g., *Boston Globe*, *New York Times*), and popular magazines (e.g., *Ladies' Home Journal*, *Newsweek*).

to a more modern farming community (which requires greater stability and focus). This hypothesis, by its nature, supports the notion of ADHD in adults.

Further support came from the television news media reports on the spread of ADHD in adults. Major news shows put their own spin on the prevalence of the disorder. For example, on *20/20*, Catherine Crier attributed ADHD to a "biologic disorder of the brain" in adults (September 2, 1994). Dr. Timothy Johnson on *Good Morning America* (March 28, 1994) was quoted as saying that experts estimate as many as 10 million adult Americans may have ADHD (reported in Vatz and Weinberg, 1997: 77). The new face of the disorder was not limited to hyperactive children grown up but included a new group of "ADHD adults" who came to reinterpret their current and previous behavioral problems in light of an ADHD diagnosis.

The message was reiterated in popular magazines. A feature article in *Newsweek*, for example, described a 38-year-old security guard who had held more than 128 jobs since leaving college after having been enrolled in the academic institution for thirteen years (Cowley and Ramo, 1993). He finally "received a diagnosis that changed his life" at the adult ADHD clinic at the University of Massachusetts in Worcester. Similarly, an article in *Ladies' Home Journal* (Stich, 1993) described a husband who was fired from job after job, constantly interrupted his wife, and forgot details of conversations. Then, "two years ago, the Pearsons discovered there was a medical reason for Chuck's problems. After their son was diagnosed with attention deficit disorder (ADD) . . . they learned Chuck also had the condition" (p. 74). The article does not mention the fact that Chuck, who was diagnosed at age 54, also went on to found the Adult Attention Deficit Foundation, which acts as a clearinghouse for information about adult ADHD (Wallis, 1994: 47).

Adult ADHD was given a great boost in 1994 with the publication of the best-selling book *Driven to Distraction* by Edward Hallowell and John Ratey (1994), two psychiatrists with prestigious organizational affiliations. Hallowell offered his own experience as the springboard for the book: although successful as a medical student and later as a practicing psychiatrist, he came to believe that he had ADHD. Ratey also stated that he had ADHD. Their book has become a crucial touchstone among the lay public. Using their clinical experience as the basis for their book, Hallowell and Ratey argue that ADHD takes various forms. Based upon their clinical experience, they propose "suggested diagnostic criteria for attention deficit disorder in adults" (p. 76). These criteria recognize the disorder without hyperactivity. Hallowell and Ratey present thirteen subtypes of the disorder, a set of "suggested diagnostic criteria," and a one-hundred-question test (with elusive criteria)[7] to enable readers to assess whether they need to seek evaluation for ADHD. The authors urge readers not to self-diagnose but to seek professional assessment. Neither Hallowell nor Ratey is a hyperactivity researcher: Ratey published only one article in the topic in a professional journal (Ratey et al., 1992) and Hallowell none. Both remain active in promoting their work in public circles. Their affiliation with Harvard Medical School gave them some academic legitimacy, but they came to the area of ADHD adults more as professional advocates than as scientific researchers. In a sense, they are moral entrepreneurs for the adult diagnosis (Leffers, 1997).

The cover of July 18, 1994, *Time* magazine issued a clarion call for adults with ADHD: "Disorganized? Distracted? Discombobulated? Doctors Say you Might Have ATTENTION DEFICIT DISORDER. It's not just kids who have it." The nine-page article disseminated the criteria and possibilities of ADHD in adults to a wide audience, and it speculated that Ben Franklin, Winston Churchill, Albert Einstein, and Bill Clinton may have had the disorder (Wallis, 1994).

Over the years a number of organizational stakeholders emerged to focus on ADHD in children; these parent and advocacy groups included those involved in the learning disabilities movement (Erchak and Rosenfeld, 1989). The largest ADHD support group, Children and Adults with Attention-Deficit/Hyperactivity Disorder (CHADD), has grown significantly over the last decade and owes much of its growth to its adult membership, specifically those adult members with ADHD. In its activities as well as its framing of ADHD, the organization has helped expand the categorization to include adults. In 1990 the parent organization sponsored a national meeting that

featured three adults with ADD and four professionals as speakers (Jaffe, 1995). In 1993 the organization added the "and adults" to its name to reflect its broadened focus. In May 1993 a CHADD-sponsored national conference entitled "The Changing World of Adults with ADD" attracted participants from thirty states and two Canadian provinces. The organization now sees education and support of adults with ADHD as part of its core mission. For example, on its web page the organization proclaims, "AD/HD is a lifespan disorder that affects individuals at all ages" (www.help4adhd.org/faqs.cfm#faq4). In addition to lobbying for educational services for children, CHADD advocates for legislation that provides workplace protection for adults with ADHD.[8] In all official publications and communications, CHADD has positioned ADHD as a medical condition, a "neurobiological disorder," rather than as a psychiatric or behavior disorder (Diller, 1997: 130; www.chadd.org), so it can be perceived as having a more legitimate stake in disability entitlements.

CHADD has played a significant role in bringing the lay and professional claims-makers together to promote better understanding, acceptance, and treatment of ADHD (Leffers, 1997). CHADD promotes the existence of adult ADHD to the public and legitimates the disorder for individuals almost as much as the actual diagnosis does. Like groups that represent individuals with other controversial illnesses (see, e.g., Kroll-Smith and Floyd, 1997), the organization is both a haven and an advocate for those who believe they have the disorder.

Another organizational stakeholder is the pharmaceutical firm Ciba-Geigy, which manufactures Ritalin (methylphenidate), the drug most widely prescribed for treating ADHD. Ciba-Geigy has long been involved in framing hyperactivity and now ADHD as a medical disorder (Conrad, 1975; Schrag and Divoky, 1976). As early as 1971, Ritalin provided as much as 15 percent of Ciba's gross profits (Conrad, 1976: 16). While the original patent on the drug has long since expired and methylphenidate is available in generic formulations, Ritalin is still the most commonly prescribed medication for ADHD (Arnst, 1999) and one of the three most commonly prescribed stimulants (S. Ballard et al., 1997). The amount of methylphenidate manufactured increased sharply in the 1990s. From 1990 through 1999, the production of methylphenidate in the United States grew by 700 percent (*New York Times*, January 18, 1999).[9] One national survey of physicians' diagnoses, based on 1993 data, found that of the 1.8 million persons receiving medications for ADHD, 1.3 million were taking methylphenidate (cited in Diller, 1996: 12). Other sources have variously estimated that 2.6 million children (Guistolise, 1998) and 729,000 adults received prescriptions for Ritalin (Breggin, 1998: 160). The potential market, with 3 million children and 4 million adults in the United States diagnosed with

ADHD (Arnst, 1999), has untapped pockets.[10] By redefining ADHD as a lifetime disorder, the potential exists for keeping children and adults on medication indefinitely. A 1999 review article noted, "The eightfold increase in the use of stimulants in the United States over the past decade stems from several factors, including the continuation of treatment from childhood into adolescence and the treatment of adults" (Zametkin and Ernst, 1999: 45). Prescriptions for ADHD medications for people aged 19 years or older "increased by 90 percent between March 2002 and June 2005," with adults accounting for approximately one-third of all prescriptions for these drugs (Okie, 2006: 2638). While it is difficult to assess accurately what proportion of this huge increase in stimulant medication use is for adults with ADHD, the proportion is likely to be substantial.

These organizational stakeholders—both advocacy groups and pharmaceutical companies—have worked both independently and in consort. Ciba-Geigy reportedly has provided significant financial assistance through a variety of support mechanisms that assist adults with ADHD, including the support group CHADD and a video produced for the Office of Special Education Programs (OSEP) (Diller, 1996). In 1995 the *Merrow Report*, a public radio talk show, reported that CHADD received significant financial contributions from Ciba-Geigy (PBS, 1995). The public outcry and media attention questioned the neutrality of this group. According to CHADD's 2004–5 Annual Report, the organization received 22 percent of its nearly $4.5 million revenue from pharmaceutical companies through unrestricted educational grants (www.chadd.org/AM/Template.cfm?Section=Reports1&Template=/CM/ContentDisplay.cfm&ContentID=1771).

Diagnostic Institutionalization

By 1994, the DSM-IV reflected the growing consensus that adults could be diagnosed with ADHD, provided they had exhibited symptoms as children before the age of 7. Two (out of the five) diagnostic criteria clearly were relevant to adults. First, the DSM-IV required that "some impairment must occur in at least 2 settings." While for children these settings usually mean school and home, the range of settings may be greater for adults and include home, school, work, and other vocational or recreational settings. Second, and related, "there must be clear evidence of interference with developmentally appropriate social, academic or occupational functioning." The inclusion of work environments in the criteria section of the manual reflected the central and relatively uncontroversial position the diagnosis of ADHD in adults now occupied.[11]

The new definition allowed for more variations of symptomatic behavior across and within settings. "It is very unusual for an individual to display the same level of dysfunction in all settings or within the same setting at all times" (APA, 1994: 79). Adults who might be quite successful at work but highly inattentive in particular interpersonal relationships and recreational activities could now be diagnosed with ADHD. As the more expansive criteria in the DSM-IV have gained acceptance among mental health professionals, some have advocated eliminating the requirement that adults be able to retrospectively reconstruct a history of ADHD (Barkley and Biederman, 1997). This would permit even greater expansion of the adult ADHD category.

Reports from the American Medical Association (AMA) and the National Institutes of Health (NIH) have supported an expanded ADHD diagnosis.

In 1997 the Council on Scientific Affairs of the AMA issued recommendations for treating ADHD. These recommendations were published in the *Journal of the American Medical Association* (April 8, 1998): "The criteria of what constitutes ADHD in children have broadened, and there is a growing appreciation of the persistence of ADHD into adolescence and adulthood. As a result, more children (especially girls), adolescents, and adults are being diagnosed and treated with stimulant medication, and children are being treated for longer periods of time" (Goldman et al., 1998: 1100). The report concluded that there was "little evidence of widespread overdiagnosis or misdiagnosis of ADHD or of widespread overprescription of methylphenidate by physicians" (p. 1100). In November 1998 the NIH convened a Consensus Conference on the Diagnosis and Treatment of Attention Deficit Hyperactivity. While little new emerged from the conference, two papers explicitly focused on adults with ADHD. Overall, the conference report affirmed the validity of ADHD, although it recognized scientific controversies, the need for more basic and longitudinal research, and a lack of consensus on optimal treatment (www.consensus.nih.gov/1998/1998AttentionDeficitHyperactivityDisorder110html.htm).

Further institutional support for the ADHD diagnosis in adults has come from prestigious professional publications. A lead editorial in the *American Journal of Psychiatry* (Shaffer, 1994) and major review articles in *New England Journal of Medicine* (Elia et al., 1999; Zametkin and Ernst, 1999), all of which included discussions of ADHD in adults, signaled the acceptance of the diagnostic category in medical circles.

By 1994 the clinical diagnosis of ADHD, which had expanded to include adolescence and adulthood, had become institutionalized in psychiatry and medicine. One longtime researcher called it "the most common chronic undiagnosed psychiatric disorder in adults" (Wender, 1998: 761).

Self-Diagnosis

One of the starkest contrasts to the earlier history of ADHD with children is the vast amount of self-diagnosis of ADHD among adults. Virtually all children are referred to physician by parents or schools (Conrad, 1976; Rafalovich, 2004). In contrast, among adults, self-referrals are the norm, and many patients come to physicians apparently seeking an ADHD diagnosis. Frequently, adults who encounter a description of the disorder sense that "this is me" and go on to seek professional confirmation of their new identity. Another common path to self-diagnosis occurs when parents bring a child to a physician for treatment and remark, "I was the same when I was a kid," and thus they begin to see themselves and their own difficulties through the lens of ADHD. While this trend appears to have been precipitated by some of the popular press (e.g., Hallowell and Ratey, 1994), it continues with legitimization provided by support groups designed for adults with ADHD such as CHADD.

Anecdotes in the popular literature suggest that adults who self-diagnose may recognize their condition in a popular media article or book. Hallowell and Ratey describe one woman who noted, "My husband showed me this article in the paper" (1994: 26). Comments on Internet sites state that one of the books on adult ADHD led individuals to physicians for a diagnosis. Diller (1997) relates that one of his patients came to self-diagnosis after reading *Driven to Distraction*. Diller points out that while the physician who is presented with such a self-diagnosed patient may have difficulty establishing the existence of symptoms in the person's childhood (as opposed to a checklist of symptoms absorbed through reading), the self-diagnosis itself becomes an element that the professional diagnosis must take into account. One psychiatrist wrote to a colleague, "Adult ADHD has now become the foremost *self-diagnosed* condition in my practice. I fear that the condition allows a patient to find a biological cause, that is not always reasonable, for job failure, divorce, poor motivation, lack of success, and chronic depression" (Shaffer, 1994: 638).

Diagnosis-seeking behavior is an integral feature of the emergence of adult ADHD. This kind of self-labeling, information exchange, and pursuit of diagnosis fuels the social engine medicalizing certain adult troubles. Without it, the spread of adult ADHD would be seriously limited.

Critics, Skeptics, and Counterclaims

Even with well-established diagnoses such as ADHD in children, there may be skeptics and critics who dismiss the validity of the diagnoses, criticize overdiagnosis,

or enumerate the dangers of pharmacological treatment. Although such attempts to reign in medicalization have had little impact on adult ADHD, they remain a reservoir of counterclaims that could affect diagnostic expansion.

Some therapists who treat those with ADHD believe that the diagnosis is becoming too prevalent: "Certainly, some people diagnosed with ADHD are neurologically impaired and need medication. But the disorder is also being named as the culprit for all sorts of abuses, hypocrisies, neglects and other societal ills that have nothing to do with ADHD" (Bromfield, 1996: 32). Alan Zametkin, a leading researcher on ADHD, has become quite critical of what he has called "a cottage industry of adult ADD" (Kolata, 1996).

In the late 1980s the Church of Scientology launched a major media campaign against the use of Ritalin with children. Although the controversial church remained an outsider in the debate, for several years its members voiced public criticism about ADHD (Leffers, 1997). Furthermore, a number of popular books critical of the "epidemic" of ADHD and Ritalin use have been published: *Running on Ritalin* (Diller, 1997), *Ritalin Nation* (DeGrandpre, 1999), and *Talking Back to Ritalin* (Breggin, 1998). While most of these books focused their criticism on the diagnosis and pharmacological treatment of children, they expressed some skepticism about the disorder in general.

The popular media, which had been actively involved in publicizing the prevalence of the disorder among adults in 1993 and 1994, became more critical in subsequent years. Leading the challenge was a cover story in *Time* magazine (Wallis, 1994); the synopsis banner read, "Doctors Say Huge Numbers of Kids and Adults Have Attention Deficit Disorder. Is It for Real?" The television program *60 Minutes* (December 10, 1995) produced segments that highlighted the absence of a definitive test for ADHD. Other major news shows focused on controversies about the subjectivity of ADHD diagnoses and the overprescription of Ritalin (e.g., the *Today* show on October 24, 1995; CNN on November 2, 1995; 20/20 on December 20, 1995; and *ABC Evening News* on March 28, 1996—reported in Vatz and Weinberg, 1997). Recently, concern has been voiced about an increased cardiovascular risk from taking ADHD drugs (Nissen, 2006).

Most of the criticism has been about the overdiagnosis and treatment of children. Even in this context, a steady number of articles have supported treatment of the disorder (e.g., Gladwell, 1999). Only a small amount of the criticism has been directed against notions of adult ADHD. Ironically, though, controversy about ADHD raises public awareness and increases the diffusion of information about the disorder, which can indirectly contribute to diagnostic expansion.

THE SOCIAL CONTEXT FOR THE RISE OF ADULT ADHD

The expansion of the hyperactivity diagnosis to adults is not primarily the result of new scientific discoveries about the biomedical nature of the disorder. While many studies have indicated that symptoms in children diagnosed with ADHD could persist beyond childhood, the studies have also showed that this occurred in perhaps a third of the cases (G. Weiss et al., 1979). To the best of my knowledge, no breakthrough epidemiological or clinical studies have identified a population of adults as having ADHD who were not previously diagnosed in childhood. Yet it is clear that "adult ADHD" has become a more common and more widely accepted diagnosis in recent years. Dr. Joseph Biederman, a prominent ADHD researcher, claims there are 8 million ADHD adults (*AMA Science News*, 2004). A recent national survey estimated a 4.4 percent prevalence of adult ADHD (Kessler et al., 2006a). A 2004 prescription study reported that 1 percent of the population aged 20–64 now take ADHD drugs, and the number quadrupled from 2000 to 2004 among adults aged 20–44 (Gardiner, 2005). What would bring adults to physicians seeking such a diagnosis and what spurs physicians to treat them? Several social factors appear to have contributed to the diagnostic expansion.

The Prozac Era

The introduction of chlorpromazine in 1955 launched a psychopharmacological revolution in psychiatry (Healy, 1997). Psychoactive medications played a major role in deinstitutionalization, and some (e.g., Valium) became regular parts of physicians' treatment protocols for various life problems, especially anxiety. American psychiatrists preferred drugs that would be useful in office psychiatry rather than medications limited to inpatient populations (Healy, 1997: 70).

In 1987, Prozac (fluoxetine) was introduced as a new type of medication to treat depression. This drug is a selective serotonin reuptake inhibitor that directly affects a different group of neurotransmitters with fewer unpleasant side effects than previous types of antidepressants. This drug quickly became a phenomenon in itself and led to a whole new class of drugs for treating psychiatric and life problems. Peter Kramer's book *Listening to Prozac* (1993) and the subsequent news media coverage (e.g., cover stories in *Newsweek* and *New York* magazines and dozens of television and radio appearances) piqued the public interest in this new drug. Prozac was increasingly depicted as a psychic energizer that could make people feel, in Kramer's terms, "better

than well." Prozac was not solely a medication for the seriously disturbed; it could also improve the lives of people with minor psychological difficulties and distresses.

The popularity of Prozac (and a series of related medications) created a social context wherein it was considered acceptable to use medications to treat life's minor problems (cf. Diller, 1996). Just as Prozac was available to people who had redefined their life woes in terms of mild depression, so Ritalin was now available to adults who had not been diagnosed as hyperactive in childhood but who were now redefining their life difficulties as related to "inattention," "impulsivity," and "restlessness." The possibility that adults could "have" ADHD became common in parts of the culture, and many individuals "recognized" that they too had the disorder and sought treatment from physicians. For example, Hallowell and Ratey (1994) recount a case in which a patient demanded Ritalin for his as yet to be officially diagnosed condition. As physicians have come to view ADHD symptoms as not limited to children, they are likely to offer an ADHD diagnosis and a "trial on Ritalin" to adults with certain kinds of life difficulties. The key here, however, is that our culture seems to be moving away from "pharmacological Calvinism" (Klerman cited in Healy, 1997) to the idea that designer drugs might improve the functioning of almost anyone.

Genetics

Genetics is the rising paradigm in medicine, and an increasing number of human problems are being attributed to genetic associations, markers, or causes (Conrad, 1999). Some experts have long believed that there is a genetic component to ADHD and its predecessor, hyperactivity. However, to date, the evidence is only suggestive, even though the claims of inheritance date back at least twenty-five years (Wender, 1971; Cantwell, 1975; Wood et al., 1976). After reviewing extant evidence, researchers noted, "Family, twin, adoption and molecular genetic studies show that it has a substantial genetic component" (Faraone and Beiderman, 1998: 951). Recent research has focused on a genetically induced imbalance of dopamine. Researchers posit a potential link between ADHD and three genes: the D_4 dopamine receptor gene, the dopamine transporter gene, and the D_2 dopamine receptor gene (Faraone and Beiderman, 1998). The thinking is that people who carry the gene overproduce dopamine, and this overproduction impairs self-control. At least seven genes have been implicated as influencing susceptibility to ADHD (Okie, 2006). Some have suggested that genetic inheritance may account for as much as 80 percent of the likelihood that one has ADHD (Barkley, 1997: 39). Despite the research and much published testimony (e.g., parents reiterating of their ADHD child, "I was just like that when I was his age"), the genetic nature of ADHD is still contested.

However, the greater the medical and public acceptance of a genetic component of ADHD, the more adult ADHD becomes a social reality. If the disorder is genetic, then it is deemed an intrinsic characteristic of people with the gene. This supports the notion that ADHD is a lifelong disorder, and the position that adults could have the disorder even though they were never diagnosed as children.[12]

The Rise of Managed Care

Managed care affects all aspects of medicine, including psychiatry. Health insurance imposes strict limits on the amount of psychotherapy allowed for individual patients. Psychiatrists now must make use of utilization review and participate in medication management, consultation, or administering "carve-out programs" (Domino et al., 1998). Mental health advocates and some researchers argue that under managed care, there is a growing reliance on various forms of prescription therapies to treat all types of psychiatric and life problems (D. Johnson, 1998). A recent study found that managed care may fuel growth in the pharmaceutical industry (Murray and Deardorff, 1998). Undoubtedly, there are now greater incentives for psychiatrists and other physicians to treat all potential mental health problems with medication rather than with some form of "talking therapy" or psychotherapy. Managed care tends to replace psychiatrists with primary care physicians who are less versed in "talking therapies" (Stoudemire, 1996); it thereby increases the potential for relying on medication for treatment. Searight and McLaren (1998) describe a "pragmatic assessment and treatment" that occurs when primary care physicians diagnose and treat ADHD children with pharmaceuticals. In fact, there is some evidence that ADHD children are treated with stimulant medications to the exclusion of "talking therapies" (Wolraich et al., 1990). It is likely that there are similar trends with adult ADHD.

Furthermore, this apparent treatment preference may encourage the expansion of diagnoses of conditions that may be treated with drugs, because these interventions are reimbursable under managed care. Problems that might have been diagnosed differently two decades ago (e.g., adult adjustment reaction) or seen as life dissatisfaction now can be diagnosed and treated as ADHD. While I do not claim that managed care has caused the rise of adult ADHD, it is part of the context that makes ADHD a more likely diagnosis than in the past.

SOME CONSEQUENCES OF THE ADULT ADHD DIAGNOSIS

Three decades ago I outlined some of the ramifications of the medicalization of hyperactive behavior (Conrad, 1975). These ramifications included (1) the problem

of expert control, relinquishing authority over problems to experts like physicians; (2) the uses of medical social control, especially drug and surgical treatments; (3) the individualization of social problems; and (4) the depoliticization of deviant behavior, wherein behavior is seen only in terms of its clinical, rather than social, meaning. To these I later added the dislocation of responsibility from the individual to the nether world of biophysiological functioning (Conrad and Schneider, 1992).

Most of these considerations can be applied to adult ADHD as well. The self-initiated and even self-diagnosed nature of most adult ADHD puts a different emphasis on some of these issues (e.g., depoliticization), but it does not neutralize them. With adult ADHD, the shift from personal responsibility and the individualization of life problems may be most critical. Creating a "medical excuse" directs attention away from social forces to biogenic ones and shifts blame from the person to the body. Thus, adult ADHD carries with it some unique consequences, especially because most cases are self-referred adults.

The Medicalization of Underperformance

What is interesting about adult ADHD is that many of those who are given the diagnosis are by some measures successful individuals. Ratey and Hallowell, for example, are both psychiatrists affiliated with a major medical school and authors of a best-selling book, yet they identify themselves as having ADHD. Frank Wolkenberg, who also claimed to have ADHD, was a successful freelance artist. In a widely publicized and controversial article, James Trilling characterized both himself (a professor and author) and his late father, the renowned literary critic Lionel Trilling, as having ADHD (Trilling, 1999). Both lay and professional accounts of adult ADHD commonly provide examples of adults who have achieved success by many conventional social measures (e.g., Hallowell and Ratey, 1994; Leffers, 1997). There are, of course, individuals with limited achievement who are also defined as having ADHD, but the issues remain similar. In fact, Hallowell and Ratey see their audience as "chronic underachievers" whose difficulties are caused not by a lack of self-discipline but by an inborn neurological condition.

For adults, the issue surrounding ADHD is performance, not behavior. As Diller notes, "In broadest terms, moving from childhood to later life for those with ADD involves a shift from problems with behavior to problems with performance. The simple fact of hyperactivity or impulsivity is not the chief concern for teens and adults: rather, it's their disorganization, irresponsibility, procrastination, and inability to complete tasks" (1997: 277).

The adult ADHD diagnosis often stems from a perception of underperformance. This underperformance can be reflected in how tasks are accomplished, continual problematic adaptations, or the level of success achieved. Individuals feel that they could/should be doing better, and they seek help in improving their performance. The ADHD diagnosis provides a medical explanation for their underperformance, allows for the reevaluation of past behavior, and, by shifting responsibility for problems, reduces self-blame. A man who has come to see his ADHD as underlying the chaos in his life said, "I always thought I was stupid" (quoted in Hales and Hales, 1993: 64). Laura, a minister, "always did very well, was always at or near the top of her class through high school, and seminary. . . . But now she told [the psychiatrist that] academics had always been a struggle for her" (Hallowell and Ratey, 1994: 83–84). Another woman reflected, "I had 38 years of thinking I was a bad person. Now I'm rewriting the tapes of who I thought I was to who I really am" (Wallis, 1994: 43).

Beyond an explanation, Ritalin provides a strategy for improving underperformance. Ritalin has been credited with saving marriages, rebuilding faltering careers, and transforming what had been problematic personalities. For example, "Once Sam's ADD was diagnosed, he started on Ritalin at a dosage of 10 mg three times a day, and it worked well in helping him focus and reducing his mood swings" (Hallowell and Ratey, 1994: 111). A 43-year-old woman reports, "I was able to sit down and listen to what my husband had done at work. Shortly after, I was able to sit in bed and read while my husband watched TV" (Wallis, 1994: 49). Some even describe a personal epiphany after first taking Ritalin: "The first day after starting to take the medication, walking down the Brooklyn street on which I then lived, I noticed the sky through the leaves of a tree and stopped to look at it. After a minute it struck me that for the first time in my life I was looking at something with no sensation of having to stop and move on" (Wolkenberg, 1987: 82).

A New Disability

A diagnosis of ADHD puts an individual into the larger category of having a "disability," which can serve as a gateway to potential claims to certain benefits and accommodations. Within this "rights" framework, the diagnosis has been interpreted primarily as a learning disorder (rather than as a psychiatric disorder). While previous research has analyzed the role of ADHD-based claims to rights within children's education (cf. Searight and McLaren, 1998), the expansion of the diagnosis permits the medicalization of adult ADHD to gain further legal validity within the institutions of medicine as well as in employment and adult education.

As ADHD was coming to be identified as a disorder among adults in the early 1990s, individuals began to pursue legal actions to lay claim to rights under legislation such as the Americans with Disabilities Act (ADA) and the Rehabilitation Act of 1973. Although rights are guaranteed under these statutes, they are enforceable only through

civil suit. ADHD is not one of the conditions explicitly covered under the ADA, yet advocates have argued that the disorder falls under the umbrella of the law. When ADHD is of sufficient severity to affect an otherwise qualified individual by limiting a major life activity, protections are afforded under the ADA (Latham and Latham, 1995). Individuals with ADHD have filed suits in order to receive reasonable accommodations in education and in the workplace (Jaffe, 1995). For example, a search using the legal database of Lexis-Nexis identified 211 cases in federal labor law between 1980 and 1999 that concern ADHD (many of which include school boards or universities).

Clearly, a diagnosis of adult ADHD carries with it a certain currency in the public sphere. The public is aware of these disability-related issues. In 1993 a key article appeared in the *Wall Street Journal* that outlined workplace and criminal justice issues for those with ADHD. A book on ADD-related disability law was published for advocates in 1992 (Latham and Latham, 1992). Not only are individuals with ADHD the potential beneficiaries of a "medical excuse" for their life problems, but they also may be eligible for specific benefits under the ADA. Individuals who, before diagnosis, would not have seen themselves as having a disability, find themselves reaping the benefits of disability legislation. Under the ADA, individuals with ADHD are entitled to "reasonable accommodations" if their disorder is severe enough to interfere with tasks that they are otherwise qualified to perform. Accommodations could include untimed tests, oral versus written administration of tests or instructions, additional time to complete tasks, structured work assignments with written instructions, extra clerical support, more frequent performance appraisals, checklists for multistage tasks, diminished-capacity arguments in criminal suits, and protection against discrimination (taken from Latham and Latham, 1995; Nadeau 1995a). The 1997 guidelines from the Equal Employment Opportunity Commission (EEOC) led to a list of accommodations for ADHD-diagnosed employees. These accommodations include special office furniture, equipment such as tape recorders and laptops, and "organizational schemes (color coding, buddy systems, alarm clocks, and other 'reminders') designed to keep such employees on track" (Eberstadt, 1999).

ADULT ADHD AND EXPANSION OF A MEDICALIZED CATEGORY

Adult ADHD offers a clear example of how a medicalized category can expand to include a wider range of troubles within its definition. ADHD's expansion was primarily accomplished by refocusing the diagnosis on inattention rather than hyperactivity and stretching the age criteria. This allowed for the inclusion of an entire population of people (and their problems) who were excluded by the original conception of hyperactive children.

The expanded category of adult ADHD has become what Ian Hacking terms "an object of knowledge" with discernable symptoms, putative causes, and particular treatment and care (1995: 96). Adult ADHD is recognized widely as an entity that is real, a "natural category" that only needs proper application. While thirty years ago "adult ADHD" might have been an oxymoron, today it is deemed a discrete disorder that can be claimed and diagnosed.

What is particularly interesting about the adult ADHD case is the role of lay groups in promoting its expansive medicalization. The lay-professional alliance (see also Leffers, 1997), best exemplified by CHADD but also evident in media presentations, suggests an alignment between the claims of patients and professionals. This collaboration contrasts sharply with the case of multiple chemical sensitivity disorder, for which there is a clear-cut disjunction between lay claims-makers and skeptical professionals (Kroll-Smith and Floyd, 1997), and chronic fatigue syndrome, for which individuals may have a difficult time getting their symptoms medically legitimated (L. Cooper, 1997). The lay promotion of adult ADHD and the predominance of self-diagnosis contradict some of the basic premises of the labeling theory of psychiatric diagnosis (Scheff, 1984); this contradiction suggests a fundamental conflict between social control agents and those considered to be deviants. In the case of adult ADHD, the diagnosis is embraced and promoted by the people who receive it. It thus may be a different kind of psychiatric diagnosis from those that sociologists typically study, one that is sought out by the very people to whom it is to be applied. In this case, treatment with medication may be seen as much as an enhancement as a form of social control.

Studies have shown that the interaction of lay and professional claims-makers rather than "medical imperialism" typically underlies the medicalization process. But the case of adult ADHD indicates that popularization may also play a part in diagnostic expansion. Media, including television, popular literature, and the Internet, spread the word quickly about illnesses and treatment. This popularization of symptoms and diagnoses can create new "markets" for disorders and empower previously unidentified individuals to seek treatment as new or expanded medical explanations become available. The widespread popular acceptance of entities as illnesses suggests a "feedback loop" among professionals, claims-makers, media, and the public in terms of the creation, expansion, and application of illness categories. Just as medicalization research has moved from focusing primarily on the claims and activities of physicians to examining the interplay of professional and lay claims-makers, it behooves us to investigate how medical diagnoses penetrate in the public consciousness and become "taken-for-granted as an objective natural entity" in the public sphere (Horwitz, 2002). Such medical diagnostic entities are often accepted

without recognizing their history and with an assumption of their universal categorical significance regardless of cultural context. Within an increasingly medically aware public reside individuals who take identified "symptoms" as revealing an underlying disease condition and who, in cases like adult ADHD, may seek to attain their diagnosis of choice.

In 2002, Eli Lilly's drug Strattera (atomoxetine hydrochloride) became the first drug specifically approved and promoted for the treatment of ADHD in adults (see www.strattera.com/1_4_adult_adhd/1_4_adult.jsp). Lilly started a marketing campaign that included television commercials to make the public more aware of adult ADHD. The ads depicted a distracted man forgetting his car keys, arriving late for appointments, and unable to complete work assignments on time, implying that these were symptoms of adult ADHD. By the end of 2004 more than 2 million patients (not all of them adults) were using Strattera, and the FDA voiced some concerns about potential adverse effects (FDA, 2004). More recently, other drugs (e.g., Adderall XR and Focalin) have been approved for adult ADHD. The emergence of adult ADHD and the FDA approval of these medications has more than doubled the pharmaceutical companies' previous pediatric market for these drugs.

In terms of diagnostic expansion, however, the ADHD case is not unique. We can point to other cases in which medicalized categories originally developed and legitimated for one set of problems were extended or reframed to include a broader range of problems. Several examples come to mind. Post-traumatic stress disorder (PTSD) was originally conceived of as a disorder of returning Vietnam war veterans who experienced the aftereffects of brutal combat experience (e.g., with flashbacks, sleep problems, and intense anxiety) (W. Scott, 1990; Young, 1995). In recent years, however, PTSD has been applied to rape and incest survivors, disaster victims, and witnesses to violence. Alcoholism was medicalized in large part because of the efforts of Alcoholics Anonymous (Conrad and Schneider, 1992), but the medicalization has expanded to include adult children of alcoholics, enablers, and especially "codependency" (L. Irvine, 1999). Child abuse, which was originally limited to battering, has expanded to include sexual abuse and neglect and, to a lesser extent, child pornography and exploitation (cf. Best, 1990, 1999). To a degree, it also has spawned the larger domain of domestic violence (including woman battering and elder abuse). In 1972, multiple personality disorder was a rare diagnosis (estimated at less than a dozen cases in fifty years); by 1992, thousands of "multiples" had been diagnosed. This "epidemic" resulted from the diagnostic reconceptualization of multiple personality disorder to "dissociative identity disorder" in DSM-III-R, with less restrictive criteria and an association with child abuse (Hacking, 1995).[15]

Definitional categories are potentially elastic and can be stretched to include more phenomena. This may be particularly true with medicalized categories because of the social advantages of medical definitions (e.g., mitigation of personal blame, medical excuse, health insurance or disability benefits), although fiscal constraints of medicine may set limits on certain applications (Conrad, 2000). While in general the expansion of medical categories may be limited by the carrying capacity of the medical profession and the health insurance industry (cf. Hilgartner and Bosk, 1988), it appears that with active claims-makers, committed stakeholders, and receptive potential clients, diagnostic expansion can occur readily and with minimal opposition. Similar to domain expansion, diagnostic expansion begins with established disorders and moves toward more problematic claims. One legitimated medical category can beget others.

It is interesting to consider whether a parallel process of diagnostic contraction may take place. Some have suggested that this narrowing has occurred for serious mental illness. With the increased reliance on primary care providers in managed care, for example, some research has suggested an underrecognition of some serious mental disorders (Stoudemire, 1996). Others have noted that the "medical necessity" standard has altered, not only for treatment but in diagnosis (Ford, 1998). It stands to reason that in the age of managed care, shrinkage of the medical domain is a likely outcome. Yet, as noted in the adult ADHD example, managed care may have paradoxically played a role in the emergence of this new category. Whatever the ultimate outcome of problem definitions, the flexibility of certain medical diagnoses allows for expansion and thus the increase of medicalization in our society.