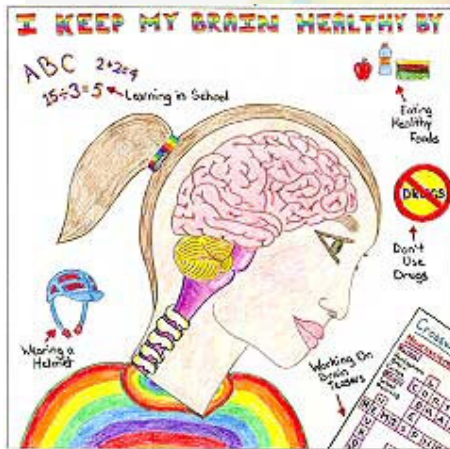


GOING TO THE BRAIN GYM

Francisco Ortega
 Institute for Social Medicine
 (State University of Rio de Janeiro)
www.brainhood.net
 e-mail: fjortega2@gmail.com



During the past few decades, the brain has ceased to be merely an organ to become a social actor. The spectacular progresses of the neurosciences, as well as the intense process of popularization by the media of images and information that associate cerebral activity with practically every aspect of life, have reinforced a growing perception of the brain as the site and agent of all the properties and actions that define

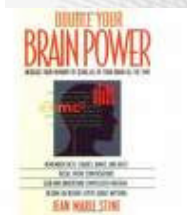
us as human beings. The brain is increasingly seen as responsible for everything we used to consider attributes of a person, an individual, a human subject. The expression “cerebral subject” adequately subsumes the reduction of the human being to its brain, in other words, the belief that the essence of every human individual is to be found in his or her brain.

One of the developments that characterize the expanding universe of contemporary neurocultures is the development of a cerebral self-help industry, and more generally what we have called “neuroascensis” – disciplines of the self aimed at the brain. This world includes a number of best-selling books which promise to help their readers develop chosen brain areas for a variety of purposes, from enhancing memory and reasoning performance, through fighting depression, anxiety, addictions, and manifold other compulsions, to improving sexual performance, reaching personal happiness, and even establishing a direct contact with God (Capacchione, 2001; Chafetz, 1992; Ehrenwald, 1984; Goldberg, 2001; Goldman, Klatz et Berger, 1991 ; Mark et Mark, 1991 ; Spotts and Atkins, 1999; Wells, 1989; Winter et Winter, 1987).

Many of these publications follow the right hemisphere rehabilitation trend. The rationalism and technicism of Western society, with its emphasis on logic and language, are identified with a predominance of the left hemisphere, and are said to have repressed the holistic and mystical dispositions of the right one, which are supposedly more akin to Eastern ways of being.



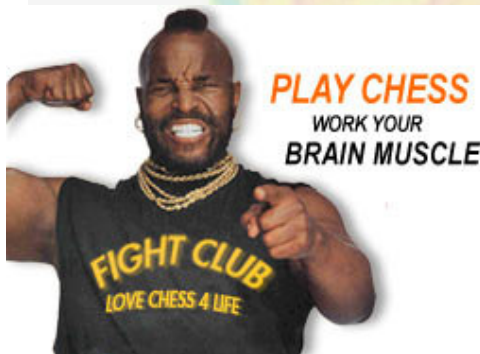
In the domain of education, for example, a fad that began in the late 1960's has been promoting the countless advantages that training the "right brain" offers for schoolwork, while criticizing the "traditional" educational system founded on left hemisphere aptitudes (Edwards, 1979; Gainer and Gainer, 1977; Hermann, 1981; Hunter, 1976). These neuroeducators pursue a "hemispheric balance in the curriculum" that would compensate for the excesses of left-brain-biased educational methods, and avoid their didactic failures. These projects bring back to life the pedagogical crusade and many of the assumptions defended by the French physiologist and neuropathologist Charles-Edouard Brown-Séquard (1817-1894). Brown-Séquard did not believe that brain functional differences were due to innate, structural differences in the hemispheres, but, rather, that they resulted from a failure of the educational system. As he explained, "We find that it is owing to that defect in our education that one-half of our brain is developed for certain things,



while the other half of the brain is developed for other things (Brown-Séquard, 1874a, 1874b). For him, the issue was clear-cut, "If we have two brains, why not educate both of them?" (1874b, p.

1). His neuroeducational project therefore aimed to develop both hemispheres. "If children were thus trained," he wrote, "we would have a sturdier race, both mentally and physically" (Brown-Séquard, 1874a, p. 333 These ideas were further developed by John Jackson, among others. In 1903, Jackson, a grammar school professor in Belfast, founded The "British Ambidextral Culture Society" (Harrington, 1987; Harris, 1980, 1985). In his book *Ambidexterity or, Two-*

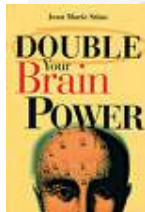
handedness and Two-brainedness: An Argument for Natural Development and Rational Education, published in 1905, he proposed a neuroeducational system that would take in due consideration the development of both hemispheres. He declared that future generations “must utilize to the utmost every cubical line of brain substance,” and that “this can only be done by a system of education which enforces an equal pre-eminence to both sides of the brain in all intellectual operations” (Jackson, 1905, pp. 103-104). As a result, brainpower would be duplicated, and the brain would be able to perform independent activities simultaneously. “If required, one hand shall be writing an original letter and the other shall be playing the piano; one hand shall be engaged in writing phonography, and the other into making a pen-and-ink sketch” (Jackson, 1905, p. 225).



Today, the self-help market is flooded by titles that connect the right hemisphere to the most bizarre phenomena, from the careers of artists, musicians, politicians or dictators as determined by their cerebral “orientation,” to tantric sexuality, mediumnistic capacities, and other paranormal activities supposedly made possible by the ‘right brain’ (Blakeslee, 1980; Capacchione, 2001; Ehrenwald, 1984; Spotts and Atkins, 1999; Wells, 1989). This literature amalgamates the most diverse genres, including rather serious studies by neuroscientists, cognitive psychologists, and well-known psychiatrists who, declaring to base themselves on the newest neuroscientific findings, offer exercise programs aimed at enhancing brainpower, and thereby preventing mental decay and the pathological conditions of the aging brain. Skills such as perception, short- and long-term memory, logical, verbal, and visual and spatial abilities can be supposedly developed with the help of neuroascetical procedures (Goldberg, 2001; Chafetz, 1992; Winter and Winter, 1987; Mark and Mark, 1991).

Books written by self-help authors who merely capitalize on the neurocultural ideology perhaps reach an even larger audience, and certainly advertise an even

larger range of results as their more “scientific” counterparts. Indeed, the promised results may include the capacity to identify hidden meanings in people’s conversation, to absorb facts like sponges and reproduce them verbatim years later, to read and understand a book in thirty minutes, or to record in memory facts, images, and even complete books. Some of these publications, those most in tune with New Age movements, use a scientific vocabulary and technical jargon, but their promises seem to cover what looks like an infinite spectrum. After all, if quantum mechanics demonstrates that reality is an illusion created by our brains, then “the universe is the mind and the mind is the universe” (Spotts & Atkins, 1999, p. 80). The exercises proposed in this segment of the literature are guaranteed to promote altered states of consciousness through which to connect one’s brain to the forces of the Universe and a superior intelligence, the Cosmic Mind or the Divine Mind.

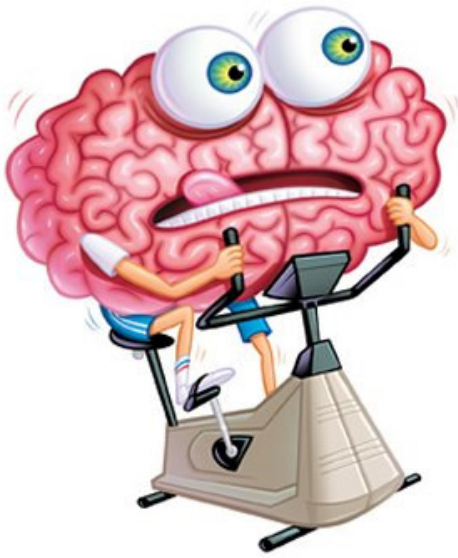


It is particularly fascinating to notice how these latter-day best-sellers reproduce just about every topic and topos of traditional self-help literature while updating its scientific appearance. We may mention, among others, the emphasis on creativity as a means to engender reality; the idea of an “internal self” that can be cultivated and promoted by acting directly on the brain; and the insistence upon autonomy, responsibility, and self-control of one’s own destiny and reality itself, all now attainable thanks to neuroascetical practices. Cerebral self-help discourses tend to rank individual responsibility and autonomy as supreme values; and these values are in turn sustained by an emphasis on self-control, and both often go hand in hand with the idea that reality can be molded by thought, or even created by it.

Neuroasceticism thus brings about a sui generis form of solipsism (as regards the cerebral autonomy of the self) and idealism (as regards the ontological consistency of the world). In tune with these features, cerebral self-help proceeds as if only the cerebral self existed, to the exclusion of other people and social and cultural environments. While traditional self-help made the mind the defining center of the subject, and claimed

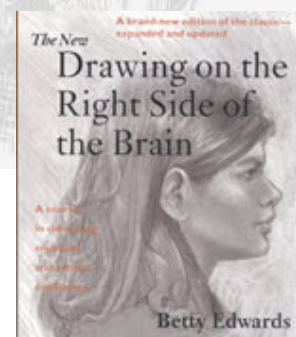


that the power of the mind could change life, fulfill one's desires and monitor one's performance, now the physical brain is enthroned in the very same place once occupied by the mind. The old slogan, "You are what your mind is" has been superseded by the postulate of the cerebral subject, "You are what your brain is."



Contemporary best-sellers reproduce older ones not merely in their general outlook, suitably updated, but even in the details of their prescriptions for cerebral exercises, as well as in their remarks on the importance of physical training, a balanced diet, and the effect of alcohol, drugs, and other toxins on the brain. We find the very same recommendations and observations in much earlier self-help health publications, such as John Harvey Kellogg's *First Book in Physiology and Hygiene* (1887). Of course, the socio-cultural contexts are different. Kellogg's program related to the perception of a weakening of social rules and moral order – a perception according to which the physical, social and political bodies were all out of control, and could be reclaimed only by individual strength of will (Gunsfield, 1992). Brain fitness aimed at retrieving moral rectitude and guaranteeing the return of a socio-moral order thought to be eroded by the loss of traditional authority and legitimacy.

In contrast, today's ideology of the cerebral subject has no intention of restoring or legitimating traditional forms of authority; it rather aims at responding to the demands of a culture obsessed by the maximization of bodily performance. It may seem that the "cult of the body" is contrary to the ideology of the cerebral subject. Nevertheless, although the exercises and programs prescribed by the self-help authors mentioned here are aimed at the brain, the programs themselves include diets,



physical exercise and recommendations for a generally healthy way of life. In short, the practice of cerebral self-help actually involve the entire body. “The idea is that by taking care of your body, your brain also benefits” (Brownlee, 2006a. See also Brownlee, 2006b; Cotman and Berchtold, 2002, Singer, 2005). This highlights the intrinsic ambivalence of neuroasceticism. On the one hand, contemporary cerebral self-help instantiates the recurrent tendency in the history of neuroasceticism to adopt a certain kind of *neurosolipsism* that reduces the whole to one of its parts – the person and/or the body to the brain. On the other hand, concrete neuroascetical recommendations call for the physical training of the body, while at the same time claiming that their real target is in the brain.



The widespread use of metaphors and analogies from bodily fitness is an eloquent sign of the ambivalence that inhabits neuroasceticism, and demonstrates its connections to the somatic culture of biosociality (Rabinow, 1996). The very idea of “brain fitness” or “neurobics” present in the titles of many such books (Cohen & Goldsmith, 2002; Dennison & Dennison, 1989, 1994; Eifert, 1999; Goldman, Klatz & Berger, 1991; Mark & Mark, 1991; Winter & Winter, 1987) leads the readers to thinking analogically. Thus, “Just as weight lifting repetitions in the gym or jogging strengthen certain muscle groups, mental exercises appear to strengthen and enhance cognitive functions over time” (Tannen, undated). Several books and programs speak of a “Brain Gym” where one could do “mental weight lifting” (CBS, 2006). The “cerebral muscles” (Goldberg, 2001, p. 255) are supposed to be trained, but without any excesses to avoid “brain cramps” (Chafetz, 1992, p. 72). Similarly, “brain stretches” will help us “burn some synaptic calories,” prevent us from becoming “mental couch potatoes” (Parlette, 1997, p. 16), and allow the mental muscles to enjoy television, a true “bubble-gum for the brain” (*ib.*, pp. 152-53).



Most of the books reviewed here set up distinctions among levels of brain accomplishment or mental prowess, for “you do not have to attain the brain equivalents of Steffi Graf’s or Michael Jordan’s level of physical fitness to be quicker in conversation, better at solving problems, have richer memories, and livelier associations” (Chafetz, 1992, p. 23). For readers “who wish to exercise [their] brain systematically as an athlete would exercise various muscle groups” (*ib.*, p. 213), authors propose

programs to train different cerebral muscles alternately and in a balanced way. To accomplish this it is of course important to hire a cerebral “marathon trainer” and to keep “brain workout diaries” (*ib.*, pp. 213-14). As these examples suggest, the cerebral subject ideology has actually transposed the bodily fitness vocabulary to the brain itself. In the somatic culture, bodily and cerebral fitness go hand in hand, and self-help health products, similar on numerous points to those marketed in the 19th-century, are presented in new guises that combine body-building language and images with supposedly up-to-date neuroscience.

To sum up, it is important to stress once more that we cannot reduce the emergence and popularization of the neuroascetic practices described here to neuroscientific advances, especially to those connected to cerebral plasticity. If we did so, we would neglect the ontological dimension of the cerebral subject. We are here dealing



above all with forms of subjectification, i. e., relationships with ourselves and with others as cerebral subjects. Neuroascetic practices are tools cerebral subjects have at their disposal to constitute an “objective self,” that is to say, a self based on allegedly expert knowledge (Dumit, 2004). As I suggested above through the notion of “biosociality,” these developments go beyond individual lives. When he created the term in 1996, anthropologist Paul Rabinow focused on the socio-cultural and political consequences of genetics and the Human Genome Project. I here adopt the concept to designate a form of apolitical sociality formed by groups of private interests that are no longer organized according to traditional grouping criteria such as race, class, social function, or political orientation. Those groups are organized according to such criteria as health, bodily performances, specific illnesses, or longevity, and function according to new criteria of merit and recognition, new values based on hygienic rules and time-occupation regimes, and new ideal models of the self based on physical regimes. In the expanding context of contemporary neurocultures, cerebral self-help is marketed to large audiences, and going to the brain gym is far from a solitary practice.

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