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The American Association for the Advancement of Science was founded in 1848 and incorporated in 1874. Its objects are to further the work of scientists, to facilitate cooperation among them, to improve the effectiveness of science in the promotion of human welfare, and to increase public understanding and appreciation of the importance and promise of the methods of science in human progress.

Self-Development

When we have learned to achieve . . . self-renewal . . . we shall have discovered one of the most important secrets a society can learn, a secret that will unlock new resources of vitality throughout the society. And we shall have done something to avert the hardening of the arteries that attacks so many societies. Men who have lost their adaptiveness naturally resist change. The most stubborn protector of his own vested interest is the man who has lost the capacity for self-renewal.

No one knows why some individuals seem capable of self-renewal while others do not. But we have some important clues to what the self-renewing man is like, and what we might do to foster renewal.

For the self-renewing man the development of his own potentialities and the process of self-discovery never end. It is a sad but unarguable fact that most human beings go through their lives only partially aware of the full range of their abilities. As a boy in California I spent a good deal of time in the Mother Lode country, and like every boy of my age I listened raptly to the tales told by the old-time prospectors in that area, some of them veterans of the Klondike gold rush. Every one of them had at least one good campfire story of a lost gold mine. The details varied: the original discoverer had died in the mine, or had gone crazy, or had been killed in a shooting scrape, or had just walked off thinking the mine worthless. But the central theme was constant: riches left untapped. I have come to believe that those tales offer a paradigm of education as most of us experience it. The mine is worked for a little while and then abandoned.

The development of abilities is at least in part a dialogue between the individual and his environment. If he has it to give and the environment demands it, the ability will develop. Any small boy with real ability to wield his fists is likely to discover that ability fairly early. The little girl with the gift for charming grown-ups will have no trouble discovering that talent. But most abilities are not so readily evoked by the common circumstances of life. The "mute, inglorious Miltons" are more numerous than one might suppose, particularly in an age in which even an articulate Milton might go unnoticed, certainly unrewarded. Most of us have potentialities that have never been developed simply because the circumstances of our lives never called them forth.

Exploration of the full range of his own potentialities is not something that the self-renewing man leaves to the chances of life. It is something he pursues systematically, or at least avidly, to the end of his days. He looks forward to an endless and unpredictable dialogue between his potentialities and the claims of life—not only the claims he encounters but the claims he invents. And by potentialities I mean not just skills, but the full range of his capacities for sensing, wondering, learning, understanding, loving and aspiring.

The ultimate goal of the educational system is to shift to the individual the burden of pursuing his own education. This will not be a widely shared pursuit until we get over our odd conviction that education is what goes on in school buildings and nowhere else. Not only does education continue when schooling ends, but it is not confined to what may be studied in adult education courses. The world is an incomparable classroom, and life is a memorable teacher for those who aren't afraid of her.

—JOHN W. GARDNER, *Carnegie Foundation, New York*

[From *Self-Renewal: The Individual and the Innovative Society*, published by Harper & Row, New York, 1964; reprinted with permission of the publishers.]