

XIV

Peak and Pace

Your pace is your natural speed of sustained effort. Your peak is the highest speed you can reach in a brief spurt. In a man of high energy the difference between peak and pace is usually great. In a man of low energy it is small. But the relation between the two is much more complex than this simple contrast indicates. As it influences performance profoundly, we must look into it closely.

Take pencil and paper. See how many dots you can make in two seconds, then in five, then in ten, then in a full minute, then in two minutes. Push yourself at top speed. When done, count dots. You find the number in each succeeding second of effort diminishes. In the first second of each try, you may have made six or seven dots; in the fifteenth second you have made only one or two. Some people cannot go on at all with the dotting after two minutes.

This is a general trend in all activity. To increase the speed of a race horse or a human sprinter by 1% is to reduce by about 9% the time during which that peak can be maintained. In shop work every employer finds the same

peculiar relation: push the workers even a little faster than they naturally jog along, and they at once bungle the job. A tool is dropped, material is spoiled, a table is tipped over. The desired gains of faster output fail to materialize.

Every spurt must be followed soon by a rest, for the spurt consumes an inordinate amount of available energy. Little by little, factory managers have been compelled to allow their workers a brief pause every ten or fifteen minutes, especially in departments where machines and operations move faster than the common pace of mankind. Men cannot be paced to machines. Machines must be paced to men. As men differ, so may machines. Many workers, many tempos.

In general, young people—say between twelve and twenty-five—spurt better than their elders. Men spurt distinctly better than women. Apparently negroes spurt a little better than whites, if we may conclude anything from the curious fact that in Olympic games and other major contests the black contestants often defeat all rivals in such purely spurting activities as the running broad jump, the hundred-yard dash, and the hurdles; but they never excel in the long-drawn-out, gruelling events. This seems to harmonize with the fact, apparently well established, that negroes have a somewhat smaller fund of available energy than whites.

People with exceptionally active thyroids spurt better than others; as they are

usually thin, they may give rise to the impression that thin people, as such, are good spurters. But this is an error; for many thin types are not at all hyperthyroid but rather anemic or simply under-muscled and hence not good spurters at all. For purely physical reasons, very fat people cannot spurt well. The inertia of bulk alone is enough to explain this, I think.

Anything done with many starts and pauses uses more energy than the smooth flow. Test this for yourself. Take a pen and try to write your own signature by moving the pen a quarter-inch at a stroke. After a few minutes you will notice the enormous waste of effort. It will also be clear that the resulting signature is much poorer than the free-flowing one. Repeat this experiment with a dozen or more activities such as composing a paragraph on some topic, sketching, talking, walking, and so on. Always the same outcome!

This is why the first rule of every sound technique of dexterity is the same: *follow through! keep moving!* Get the feel of the act as a whole, never as a broken sequence. If you must think as you act, be sure that you do not stop to think! This is just another way of stating the psychologist's precept that it is best to learn things as wholes. Learning proceeds the same regardless of the thing learned. A movement, no less than a theory or a French conjugation, should be seized and executed as

a single entity. Then and then only is the highest economy possible. Then and then only is the utmost of grace fused with the utmost of success.

Here we come upon one of the gravest handicaps of a certain sort of intellectual. He inclines always to analyze everything he does from instant to instant; and his mere act of attending to details serves as a brake, so that he advances jerkily. With each pause he first slows himself down, then compels himself to waste energy in overcoming the inertia of the instant. No wonder he is in danger of learning slowly, painfully and clumsily!