The History of Movement Pattern Analysis

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September 2007

Movement Pattern Analysis has its early roots in the study and application of production techniques in western industry. Prior to the industrial revolution, work was performed on a smaller scale, by farmers and trades people who came into their work lives through family and cultural traditions. Whole families, and even villages had various duties in localized agricultural production, which required hard physical labor, long hours, and a close relationship to the rhythm and cycles of nature—as well as to each other in community settings. Hours of daylight, availability of water, strength of wind, and variations in temperature all played major roles in the products born of human labor: in terms of what human beings could accomplish in a certain cycle of time, and in what was more likely to be produced within particular geographical areas.

The industrial revolution changed these parameters of productivity, and created the possibility for the development of industry apart from--and outside of--the boundaries of nature and her cycles. Electricity allowed workers to dramatically increase hours of production, and to mechanize the work load of factories to a much larger scale. Mechanized assembly lines accelerated production, while creating more discreet, and more specialized involvement of its workers. Standardizing parts in the manufacturing of goods and machines, meant that workers were trained to work to industry requirements, rather than industry reflecting individual human talents and traditionally learned skills.

As machines grew stronger, bigger, and more capable of growth and standardization, product and profit to be made from them challenged the individual to become a more predictable element in the service of efficiency and productivity. Industrialists seeking to improve the human side of mechanized production, brought into the factory scene, scribes, photographers, and time-keepers in an attempt to understand the boundaries and new possibilities of their human workforce.

Muybridge's photographic studies of animal movement, set the stage for attempts to decipher and measure bodily motion in fragmentary, progressive images. From here, Marey developed other photographic techniques, which allowed for setting the same time intervals between images, and to develop sequential images on one photographic plate. His experiments created the belief that movement could be isolated, fragmented, and measured with scientific 'accuracy'. If continuous flow of motion could be broken into discreet elements and analyzed, observation of human movement in productivity could be improved, trained, honed and re-calibrated to increase productivity and to manage better man's relationship to the industrial machine.

With movement elements broken down and refined, and instruments of labor redesigned to compliment human motion, productivity in team or assembly line activity improved. Cinematography, photography, and other recording methods continued to be developed and utilized in the quest of ease and efficiency in overall productivity. Workers were being molded to better fit the mechanisms which were driving an industrial economy proceeding at break-neck speed. Some saw this study of human motion in the factory as an ominous instrument of control and surveillance. Others recognized these various analytical tools as incomplete, as they left the individual mind and the individual need for physical, emotional, and mental variation and expression behind.

During World War II, one of the first British Management consultants, F. C. Lawrence, met movement theorist Rudolf Laban, and a new way of understanding the worker's contributions to productivity in industry began. Before immigrating to England, Laban had developed a method of notating and describing movement (ballet specifically), which included a subtle and refined approach to movement observation. Though Laban had worked primarily in the arts, his interest and belief in the importance of movement extended well beyond performing and artistic borders.

Meanwhile, Lawrence as an engineer and a time and motion specialist, believed that there was more to be understood from movement than what had been established in the efficiency-oriented, incremental measurements of motion which were currently practiced in industrial management. Though production had been streamlined by these techniques, a dreariness in morale, emptiness and loss of meaning in work had followed. Individual workers were cut off from each other, and cut off from their own needs for expressivity and recuperation. By collaborating with Laban, Lawrence was able to move beyond the standardizing and reductive approaches to motion and productivity currently in place. Their partnership brought into industrial observation, the inclusion of the worker as a living, moving individual, who was impacted by work satisfaction, and the mental and emotional life of labor, not simply its mechanical, physical aspects which left the human being as simply another part of the larger machine.

Together, Laban and Lawrence were able to confirm that quality of movement mattered more than simply quantity of movement, proving that efficiency was not created simply by reducing the amount of motion taking place in a particular action. Laban's concepts of Effort, which referred to the quality of kinetic energy expended in an action, broadened the understanding of bodily contribution to task-oriented production, and provided a more accurate and developed framework for utilising movement to improve the process of production. Through working specifically with the rhythm of movement in qualitative patterning, their approaches improved efficiency, reduced fatigue, and increased job satisfaction. Absenteeism, illness, and injury all lessened, which created a picture of better productivity even if more

'product' were not strictly produced within ever shorter time frames. Additionally, women were able to perform work that only men could undertake previously, by utilising different qualities to accomplish the same end. For example, the use of flow might be utilized to overcome the weight of an object too heavy to lift; or precision and fine touch would alternate with quick and strong accents to create a more effective rhythm of exertion and recuperation, allowing the worker to continue with less fatigue and more energy available for the next task. Endurance became for Laban and Lawrence a matter of phrasing and timing, rather than simply the ability to perform the same movement with little muscular variation over time. Recuperation was built into the rhythm of movement dynamics, and of necessity would contrast with the quality of exertion needed within all movement phrases. Laban also brought movement activities, as experimental movement retraining, into the daily routine in some factory settings. Movements were designed to increase bodily support for the work being done, as well as providing training in breathing and varying relaxation and tension during movement.

Overall, Laban's understanding and refinement of movement analysis in terms of spatial design, body use, and movement dynamics became the central focus of the motion palate for Lawrence's management firm, and thousands of workers were analyzed, retrained, and oftentimes placed in more rewarding roles during the years of Laban and Lawrence's industrial collaborations.

Both Laban and Lawrence were concerned with the many negative consequences of mass production, and each recognized through their work together that both individual rhythm in movement, and collective rhythm in community and teamwork, were vital aspects of work and consequently overall life satisfaction. Matching individual rhythms to various industrial operations, improving the use of Effort rhythm in relation to existing roles, and facilitating work in teams rather than in isolated individual units, all helped to enhance the physical, psychological, and social aspects of the workplace where their approaches were utilized.

While their initial assignments focused on manual labor in manufacturing and agriculture, gradually clerical and managerial posts also came under their widening scope for application. The visibility of rhythmic movement was diminished in white-collar roles, but they were observable nonetheless, and appeared to Laban and Lawrence to have the same underlying significance in Effort rhythm. The two men together asserted that mental energy itself exhibited speed, strength, direction, and flow, and developed the first assessment of management action based on movement observation. Type and scale of movements had to be adjusted for these assessments, and at least a rudimentary framework for interpreting movement data into managerial aptitude was begun.

Warren Lamb entered these industrial studies in 1947, when he was recruited to assist Laban in notating Effort rhythm in the workplace. Categories of movement to be analyzed including basic links to managerial aptitude had been determined,

but the process of interpreting and advising from these findings appeared to be flexible, as Laban oversaw and somewhat intuitively delivered results directly himself. Laban was continuing to explore new ways of assessing data, and into this climate of observation and discovery Lamb brought an objective and disciplined approach. Through his determination to apply a disciplined analysis and evaluation of movement observations, Lamb was able to develop a systematic analysis and interpretation of movement at the level of senior executives. As Moore states in *Movement and Making Decisions,* Lamb "clarified parameters of movement that were relevant for assessing decision making…and translated this movement into terms that could be grasped by managers and related to their practical experience" (Moore, 2005).

After several years of working for Lawrence's consulting company, by 1953, Lamb founded his own consulting firm, and began rigorous study of movement profiles and their correlations to management behaviour. Observations and interpretations were tried out, and subsequently confirmed or refuted through experimentation in the field itself. Laban's groundwork in industrial rhythm had included three categories of movement as being significant, and Lamb redefined these categories in an effort to uncover what was more essential in an individual's movement repertory. What had previously been seen in either postures or gestures as independent units began now to emerge in his observations as more significant in posture-gesture mergers. These were fleeting moments of movement which appeared to happen outside of self-awareness, and resulted in a whole body integration of movement quality. Lamb was able to assess and check these new observations during the process of interviewing 4,000 managers, correlating their profiles to their management aptitude—which was later defined and understood as their 'action motivation'. Lamb applied Laban's theory of action sequence (Attention, Intention, Decision, and Precision); made adjustments in the position of Flow within Laban's analytic framework, and incorporated the role of 'shaping the body' during communication in the overall analysis.

By 1960, Lamb began to outline a decision-making framework consisting of three stages, which included Laban's original observations of Effort, as well as their correlated patterns in complementary body Shape. These patterns were observable within posture-gesture mergers during conversations, and fell within the aspects of the three stages determined as phases in the process of decision-making. By 1965 his work was in demand, with client companies drawn from multiple industrial sectors, ranging in size from small partnerships to large corporations. With a decision-making model in place, and the ability to systematically assess management personnel in conversational movement, Lamb's framework of Management Initiative was shaped to apply to business and industry at top management level. By 2005, over 30,000 individuals have been assessed, including 400 companies—some of which have utilized Lamb's assessment application and framework for over two decades running. At one time termed Action Profiling, this framework is now called Movement Pattern Analysis, and continues to hold a

cutting-edge distinction in management consulting. Training new consultants has become codified and regulated by Motus Humanus, and numerous books and articles have been written about Lamb's empirically verified and effective movement profiling framework. The fact that it relies on movement observation, and reveals the content and quality of unconscious nonverbal communication, separates it from any other management training and assessment technique developed to date.