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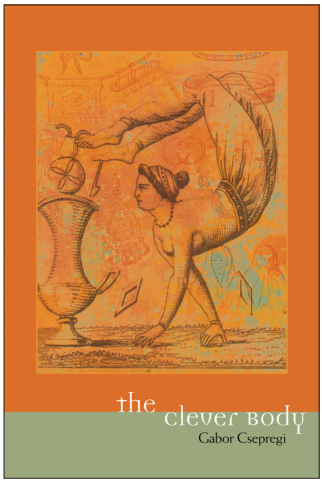


**THE CLEVER BODY**
by Gabor Csepregi
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# 6 | Memory

**The Body as a Temporal Form** | Merleau-Ponty considered the moving body as a "medium of our communication with time as well as with space."[1] Gabriel Marcel expressed the same idea when he defined the body as a "temporal form."[2] Indeed, our past experiences, the painful as well as the pleasant ones, are inscribed in the body. If we carefully observe the actor's or athlete's behaviour, we will catch sight of a particular history and, at the same time, of some individual possibilities. Arising from the body's natural dispositions and powers, these possibilities expand or shrink with the ongoing acquisition and modification of

experiences and interests. The body is a "provisional sketch" of our "total being" inasmuch as it is both "rooted in nature" and "transformed by cultural influences."[3] It is always our past and future, always something already formed and being formed.

The structure of action-time is not consciously represented, but lived as an intrinsic factor of our motor experience. Whenever we act, time is constituted of the chosen or imposed possibilities, acquired experiences, and actual execution of movements. These three temporal dimensions determine and generate each other so that each one receives its character and significance from the other two. The possibility of my jumping over the bar or returning the tennis ball is determined by the skill level attained during past practices. Conversely, I am able to acquire, develop, and perfect a skill if I am exposed to increasingly difficult challenges. The actual moment of my jump or forehand stroke is defined by my previous experiences and concrete possibilities pertaining to a given situation.[4]

Paul Ricoeur pointed out that learning is essential to all habits and the process of acquiring habits brings into the fore one of the pivotal aspects of human life: time. "The key idea of habit ... is that the living being 'learns' in time. To reflect on habit always means to refer to the time of life, to the holds which a living being offers to time and the holds which, thanks to time, he acquires on his body and 'through' it on things."[5] I would think, however, that rather than offering holds to time on our "timeless" body, the learning of habits makes possible the display and articulation of the body's inherent temporality.

In possession of its already formed dispositions and skills, the body manifests its availability: it is able to do something. Though we seldom stop and rejoice about its fitness and usefulness, the available body

announces itself in almost every moment of our active life. "The availability of the body is experienced without thinking in the execution of habitual actions, but this experience remains nevertheless continuously in effect. It manifests itself in the certainty we feel about our ability."[6] In other words, we find the body available while we face a particular task such as playing a difficult rhythmic passage on the piano or climbing a steep rocky slope. The availability is not based merely on the body's anatomical and physiological systems, but also on the acquired skills. We are able to flawlessly co-ordinate the elements of a difficult movement because we have done it before and are able to remember how we did it. If we happen to venture further and propose new motor forms, it is still the secured skill that makes possible the execution of an inventive solution. Our body develops skills and is able to deal with new situations, and these two aspects, skilled knowledge and creative availability, develop in reciprocal interaction. An acquired skill sustains and increases the body's availability and the availability that we inventively use, in its turn, perfects the skilled behaviour. Thus our body relates to what is "behind" itself and what is "ahead" of itself; because it is invested with a memory, it forgets nothing, and also with a remarkable sense of the possible, it anticipates habitual or probing movements.[7] There cannot be anticipation without the body's ability to store past experiences and convert them into skills and, conversely, no retention can occur without anticipating habitual or new motor accomplishments. Although no strict separation is possible, in this chapter I focus on the memory of the body.

SKILL AND HABIT | Skill and habit are so closely related that it is not easy to provide a distinct definition of the terms. *Skill* often refers to

a capacity to perform some actions. The concept of *habit* evokes both the acquisition and the actual and appropriate use of a capacity. Habits may be launched in diverse situations; skills tend be more specific. Although both can be spontaneous and dextrous, habit brings to mind the notion of ease, skill that of proficiency. There are some habitual actions that do not require skill (going for a walk) and, inversely, skilful performances that, though not devoid of efficacy, lack the fluency and facility of habit (my playing on the piano).

Skills are acquired through our implicit memory or, as Jerome S. Bruner would put it, a "memory without record." It makes possible the conservation of perceptions and movements that have occurred in the past and that have led to the learning of new ways of moving. As its name indicates, we learn to swim, ski, or ride a bicycle without being able to recall particular learning events or experiences. These are "converted into some process that changes the nature of an organism, changes his skills, or changes the rules by which he operates but which are virtually inaccessible in memory as specific encounters."[8] Skilled behaviour is defined as an aptitude to perform movements learned through successive experiences and leading to the proper understanding of the movement patterns. The practice of motions transmute into a "latent knowledge" (Merleau-Ponty) of our body, and the "sedimentation" takes place without "keeping record" of each step of our progression.

Merleau-Ponty and Buytendijk tell us that we do not acquire habitual movements by merely creating a series of associations between impressions and motor impulses.[9] We actively adapt ourselves to specific situations through the reorganization of our movements, these being guided by the perception of a meaning, and by the awareness of our possibilities.

When we learn the piano, we execute particular "*modes* of movement" (Straus) according to the sounds we hear and expect to hear, and the music's emotional and aesthetic qualities.[10] We learn the speed, direction, strength, and effect of the movement in relation to acoustical and aesthetic configurations. The repetition of the appropriate motor response leads to the stabilization and articulation of the form, the widening of our motor possibilities, and the development of skills. Connections between perceptual content and movement response are established in light of the meaning, motive, or goal understood by the "knowing-body." "The acquisition of a habit is indeed the grasping of a significance, but it is the motor grasping of a motor significance."[11] Our body knows, or pretends to know, how to lift a seemingly heavy object or to walk on slippery ground, and it does so in an unreflective but intelligent manner.

In his definition of skill, Bruner also emphasizes the body's relation to an overall meaning and to some future development: "A skill is a mode of sensory-motor functioning that provides rules for anticipating and responding to categorized situations of varying uncertainty."[12] There is nothing mechanical or automatic in the production of the skilful action since we actively apprehend a meaning, and the action-situation continuously changes. Occasionally, our body "emancipates" (Buytendijk) itself from the already acquired rules, and responds to the requirements of a situation with a new movement. The new skill swerves from a past experience or a previously applied schematic response. Yet the acquisition of the new is only possible because some elements of the innovative variation are contained in the old structure. When, for instance, my son reaches for a frisbee by turning sideways, bringing his left shoulder to the front, and placing his open right hand behind his back, he improvises

a new motor performance on the basis of an already acquired dexterity, which comprises the discernment of direction, transition, and limit of the catching movement.[13]

Once a movement is learned, it is available for repeated and flexible use. It functions "in the manner of the organs" (Ricoeur), it becomes a habit. Paul Ricoeur rightly considers the "use-value" one of the essential characteristics of the habit: we know how to do something, we can do it. "Habit ... is a power, a capacity to resolve a certain type of problem according to an available schema: I can play the piano, I know how to swim."[14] The schema is a spatial-temporal one: it is a structure that allows us to move in our surroundings with ease and confidence, because it consists of the correct evaluation of the distances between our body and the objects and the corresponding temporal relations.[15] Our hand knows how to reach for, and use, a doorknob, a lamp, or a waste-paper basket. Before catching the ball, it senses the appropriate spatial position and the time it needs for the right positioning. If, for some reason, someone modifies the location or functioning of these objects, we immediately take notice of the acquired habit of our body.

As a result of the repeated communications with objects, a reliable spatio-temporal schema – the bodily knowledge of a room, a garden, a swimming pool, or a street – does not consist in an objective representation, but in a "certain modulation of motricity." "My flat is, for me," affirms Merleau-Ponty, "not a set of closely associated images. It remains a familiar domain round about me only as long as I still have 'in my hands' or 'in my legs' the main distances and directions involved, and as long as from my body intentional threads run out towards it."[16] Perhaps no other human activity contributes so much to the building of these dynamic

"threads" or schemata as play. It is obvious that, while playing, children progressively develop skills and conserve information about a wide range of available objects. To acquire a spatial-temporal schema, their sense of vision is insufficient.[17] In order to succeed in adjusting motor activity to spatial characteristics, they have to rely on their sense of touch. Above all, it is the tactile exploration of space that develops the trustworthy awareness and keen appreciation of directions and distances.

To have proficiency, an unreflective relation to the world is invaluable. Samuel Butler accurately stated, in his remarkable book, that the older our habits are, the less control and reflection we need in order to carry them out.[18] Reflection and attention can even be harmful since they yield uncertainty and hesitation. Lack of control and consciousness, on the other hand, leads to the achievement of a harmonious and efficient performance. Hence the paradox: when we know something, we do not know it, in the sense that we are unconscious of it. We truly know how to sail a boat or play an instrument when we are not conscious of our knowledge. This law holds not only in respect to our bodily habits, but also to our modes of thinking and the making of value judgments in general. These, after long practice, function almost unconsciously, just like the movement of our tongue does when we eat or speak.[19]

For the execution of skilful actions, we do not need to consider and bring together the various movement segments: the movements, even the difficult and complicated ones, are performed as a whole. They are fluent, accurate, and speedy if we do not attend to the specific elements of the global form. Uncertainty and hesitation stem precisely from the attention we pay to them. Musicians declare that they are able to play a piece well when they do not consciously strike every single note. Some

would say: "The piece is in my fingers." During the process of learning, the consciousness of the details forces them to play slowly. When they know a piece, they no longer know it.[20]

Neither the playing hands nor the instruments are objective realities that musicians consider analytically. An organist, to borrow Merleau-Ponty's example, does not analyze and form an objective representation of the new instrument that he is going to use. He relates to the distances and directions on the basis of his readiness to play the music and communicate its emotional content. "During the rehearsal, as during the performance, the stops, pedals, and manuals are given to him as nothing more than possibilities of achieving certain emotional or musical values, and their positions are simply the places through which this value appears in the world."[21] His reading of the score and the sounds produced trigger and define the orientation of his movement in relation to the immediate space. His expressive movements, perfected through many hours of practice, are the means used to create a link between the written notes and the actual sounds. His body exists as a "mediator" between his intention to express the composer's ideas and emotions, and the outcome of his play on the instrument, the music itself. The acquired habit creates music and conveys an artistic meaning, just as much as the awareness of the dynamics and possibilities of tones enables the artist to introduce fine variations.

INVENTIVE STYLE | Acquired habits allow us to extend the limits of our bodily existence. Objects – a car, a telephone, or a pencil – become the means by which we create relations and open ourselves to new experiences. "Habit expresses our power of dilating our being-in-the-world, or changing our existence by appropriating fresh instruments."[22]

As with our hands or legs, these objects are experienced as silent but familiar mediums, opening up for us various possibilities. Without thinking, we immediately understand how to use them in order to reach our objectives.

When our body has a "knowledge of familiarity" in the presence of some specific objects, it performs the appropriate motor response. The visual or tactile perception of a jar or a doorknob is immediately followed by an accurate and harmonious execution of the movement of turning. Merleau-Ponty observes that the perception induces a "certain style of motor responses," because each object suggests its "motor essence."[23] Ricoeur also speaks of a movement that "becomes a whole, a stylized harmonious *form* which adheres to the perceived form without either a guiding image or a special initiating order."[24] The concept of style refers here to an efficient execution pertaining to a particular action-situation.

Style is not only the characteristic feature of expressive realities (a melody or a painting), but also that of perception itself. Our vision, bringing together the manifold impressions and aspects of the world in light of a global meaning, exhibits a style. But the coherent perceptual point of view is closely linked to a distinctive way of moving, which also reveals a style. "To learn to see colours it is to acquire a certain style of seeing, a new use of one's own body."[25] Both perceptual and motor activities unfold due to some interpretations that are ascertained by the body. Hence the body is not merely an object of our thought, but a dynamic series of performances that carry a "cluster of meanings." It can be compared to a work of art; it is a "nexus of living meanings."[26] When perceiving and moving towards something, the various bodily parts perform a coherent, stylized action because they are all involved, and linked together, with the same lived meaning.

We daily experience an ongoing modification of the meanings of objects, to which a reference has already been made. A gift received from a beloved person differs in appearance from the very same object observed in the store. The "look" of the much cherished house changes significantly once we learn that it is to be sold or demolished.[27] The change is triggered, in part at least, in accordance with the experiences, feelings, values, and expectations preserved by our body.[28] The body of any ball player has assimilated, in addition to skills and experiences, the implicit obligation of fair play. The meaning of the overall game situation is evaluated according to the tacit knowledge of rules, obligations, and possibilities. The body confronts a defensive or offensive task not only with its already acquired skills, but also with a consciousness of what is desirable, possible, and permitted. The same wisdom governs, to a large extent, the movements and perceptions of the car driver. Here, too, the hands and legs have incorporated a large number of norms and values, and the meaning of what the driver sees and hears is given through the implicit awareness of possibilities and interdictions. The combination of conscious intention and the efficient use of an anonymous, latent knowledge of the body results in the ability to drive a car. When we drive, "we merge into this body which is better informed than we are about the world, and about the motives we have and the means at our disposal for synthesizing it."[29] It is our body that understands the surroundings (road, traffic lights, other cars) as a meaningful whole and actively regulates the movements on the basis of an incorporated knowledge, in which the "feeling of responsibility" is paramount.[30]

The acquired style does more than merely helping us to execute, naturally and with ease, some repetitive actions and, thus, to deal with the requirements of a task. Our handwriting does not consist only in the

execution of a series of purely mechanical movements; it is, above all, "a general motor power of formulation capable of the transpositions."[31] The structure of our movements is variable according to the characteristics of the circumstances, especially when we handle familiar objects such as a hammer or a lighter. Unlike some devices that call for rigid, stereotyped gestures, the objects occupying our living quarters may suggest new ways of using them; they demand "intelligent handling" (Ricoeur).[32] Occasionally, when we are not concerned with the achievement of a specific result, we savour the modification of movement for its own sake. It is the hand's feeling of the possible that discovers a new way of using a tool or an instrument.

Beyond the variation of movements, the style also gives rise to surprising innovations. Stendhal's writing style, his "system of speaking," constituted through long practice and observations, reveals his character and perception of the world and also "allows him to improvise."[33] In a similar fashion, during the execution of habitual gestures, our body is able to invent new solutions and thus transgress the familiar.

*All the monographs on acquisitions of habits point to this curious relation between the intention which launches out in a specific direction and the response, arising from the body and the mind, which always has the air of an improvisation. This is familiar in the case of skaters, pianists, and even aspiring writers. Habit only grows through this type of germination and inventiveness concealed within it. To acquire a habit does not mean to repeat and consolidate but to invent, to progress.*[34]

Again, inventiveness is one of the principal features of children's play. Ritual play consists, in part, of reproducing, more or less faithfully, some guiding models and of repeating a certain number of chosen conducts.

True, some make use of this activity for compulsive purposes: their movements are rigid and invariable. But it would be a mistake to conclude that all repetitive behaviour points to the child's deep-seated desire to find protection from life's uncertainties. Erik H. Erikson defines ritual play as a "mixture of formality and improvisation," a "rhyming in time."[35] These contribute to the child's capacity to enrich the motor form with new motives and elements, to deform it, even to change it to such an extent that it becomes a genuine caricature of the original behaviour.

If children relate to their surroundings with sympathetic ties and consider objects and people in a relaxed manner, they can avoid inertia, foreseeable and familiar movement patterns. They can propose new motor combinations to the same extent as musicians or dancers are able to introduce subtle rhythmic or expressive variations into their stylized performance.

THE GIFT OF AUTOMATISM | To be vivid, flexible and adventurous, habits must be educated. This is the advice of John Dewey who defined habits in terms of their inert persistence and not of their spontaneity. "What is necessary is that habits be formed which are more intelligent, more sensitively percipient, more informed with foresight, more aware of what they are about, more direct and sincere, more flexibly responsive than those now current. Then they will meet their own problems and propose their own improvements."[36] Notwithstanding our effort to make them inventive and flexible, our habits sometimes fall into automatism. We then have the impression that we do not entirely coincide with our body's abilities. They are, to a certain extent, distinct from us, resist our intentions, and reveal their unavailability. We tend to approach objects

with an inflexible interest and provide a knee-jerk response to their demands.

Our blunders are often caused by an automatic release of movement: we are unable to catch a ball because we approach the task with the wrong type of movement. The same may occur in our speech as, under stress, we mispronounce a word. Perhaps more frequent are those gestures that we mechanically execute in situations presenting some modifications and requiring a readjustment of our behaviour. We inadvertently throw something on the floor because the wastebasket has been moved. Or we reach in vain for the gear shifter when we happen to drive a car with automatic shift. We simply fall back to our old habits. "Repetition of daily cycles of action saves the trouble of inventing. For reasons of economy we appeal secretly to old resources and yield to them."[37] Intermittent lack of attention also leads to the execution of automatic movements. This happens, for example, when our exhausted body continues to walk or swim and we no longer consciously control our movements.

Still, automatic movements can be useful when, as actively involved, we are required to make a quick assessment of a situation. Our perception is closely linked to our actual and virtual motor performances. While driving a car, the significance of the road, other cars and objects, or signs depends on whether our body is or is not able to execute driving movements.[38] The objects suggest, and evoke in us, previously experienced movements and their instantaneous repetitions. Because our body preserves motor experiences, we see dynamic qualities in the objects: we are able to assess their possible actions or reactions. We accurately evaluate how the rock, ice, or curve would "act" and accordingly, and without any delay, determine the motion of our car and the further

development of our driving gestures. The movement leads to a perception of the dynamic characteristics of the object and these, in their turn, trigger the automatic execution of further movements.[39]

It would be, therefore, a mistake to belittle automatic motor performances. Some brain-injured individuals are unable to discriminate among possible choices according to a logical selection, but they still continue to perform the automatic, stereotyped movements that are significant to their life.[40] Hence the importance of an educational process that allows the body to incorporate and preserve movement patterns, as well as values. "Such patients," Tellenbach tells us, "can still radiate the atmosphere and exhibit the behavior patterns of the society in which they grew up. Without reflection or effort, they are able to do what 'one' does in a given situation. They can still largely grasp the meaning of a certain situation for themselves and for another person."[41] When the normal human existence is no longer possible, the body still presents possibilities for creating and entertaining a coherent relationship with fellow human beings. It succeeds even though the movements unfold according to a fixed scale of meanings and a limited sphere of interests.