Linguistic Models versus Parallel Event Analysis of Interpreting Dance Movements

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The aim of this presentation is to call attention to the potential of the analytical capability of Kinetography Laban and Labanotation in understanding and interpreting movement content of dance, and to raise a more detailed, more comprehensive approach compared to those that originate from linguistic models. First, I briefly introduce some well-known movement and dance analytical approaches, all of which derived their theories from modern linguistics. To point out the essential differences between the linguistic models and the approach based on Kinetography Laban and Labanotation's movement analysis, the focus will be directed to the smallest structural units of dance.

Most probably, American anthropologist Ray Birdwhistell was the first to use the terms "kineme" and "kinemorph"; in his 1952 study *Introduction to Kinesics: An Annotation System for Analysis of Body Motion and Gesture* he considered them analogous to the late nineteenth (or early twentieth) century linguistic terms phoneme and morpheme. Phoneme means a unit of sound; morpheme is the smallest meaningful unit in a language. Like phoneme, Birdwhistell regarded "kine" or "kineme" the smallest unit of the flow of movements; and for morpheme, he substituted "kinemorph," the smallest structural unit of movement with meaning (22). He created his own, simple symbol system, called kinegraph, to notate body part and facial movements to analyze them in different social contexts (36-72).

The first structural analytical works in the field of traditional dance research in Europe appeared a decade later, in late 1950s, early 1960s. Hungarian ethnochoreologists György Martin and Ernő Pesovár state in their paper "A Structural Analysis of the Hungarian Folk Dance: A Methodological Sketch" that in the process of establishing their method "many analogies have been drawn, . . . and valuable experience has been gained particularly from ethnomusicology and linguistics" (3). They call the smallest unit of movement "kinetic element," and state that

... the kinetic element is a phenomenon essentially analogous to the smallest indivisible linguistic unit, the speech sound. The speech sound (phoneme) cannot be divided into smaller independent units, yet the phases of articulation can be analyzed. (4)

We may assume that the notion of "phases of articulation" corresponds to that of allophone or allokines. Martin and Pesovár explain that the motif in figure 1 "consists of three kinetic elements: 1. the right leg jumps sideways while the lower part of the left leg (the shank) swings backwards; 2. the left foot steps forward; 3. the right leg jumps backwards while the left leg swings forwards (4)."¹ It means, that they segment the dance by timing, in other words, they relate one kinetic element to a rhythmic unit.

From an analytical point of view we can see that the first 1 and the last 1 of the motif in figure 1 is constituted of simultaneous support and gesture movements. Martin and Pesovár regard them as single units, even if a unit may be investigated in detail as follows:

The third kinetic element of the ... motive consists of the following phases: a) jump from the left foot, b) both legs in air , c) right foot touches ground and d) bends a little while left leg swings forward and e) bends a little (4; motif no. 3 in dance no.1).

Still, in c) the support and gesture are considered one entity, despite the obvious difference in their movement content.

Based on Martin and Pesovár's theory, Anca Giurchescu and Eva Kröschlova name the smallest structural entity "motif-element" in their paper "Theory and Method of Dance Form Analysis," and state that it cannot be decomposed further (25). They declare that "The content of a motif-element is not necessarily a simple movement, but it may be a combination of more than one kinetic element, altogether performed simultaneously in one beat" (29). Examples of the "kinetic element" are given textually, such as step, hop, swing, turn, leap, stamp, clap, and different gestures, but a direct illustration of the notion of the motif-element (as with all other higher structural concepts) is missing with neither notation nor verbal dance description given. It can be only deduced from the attached analysis of a Czech couple dance *roveňačka*, in which—as shown in figure 2—the motif-cell is identified e.g. c' consists of two motif-elements, δ and ε , in \int_{ε} rhythm (42-43). The authors also state that a motif-element can be "mono-kinetic" comprising a single kinetic element, or it can

¹ The cited textual description does not exactly match the kinetography of the dance published in the paper.

be a complex "poly-kinetic" one. Just as the definition of the "kinetic element," that of the "poly-kinetic" element is missing; it is ambiguous whether "motif-elements" δ and ϵ are "mono-kinetic" or "poly-kinetic."

Separate from earlier results of the European structural analysis of traditional dance, approximately a decade later Adrianne Kaepler presented an analytical method related directly to modern linguistics in her study "Method and Theory in Analyzing Dance Structure with an Analysis of Tongan Dance." Just as Birdwhistell, then Martin and Pesovár, she regards the structural linguistic concepts phonemes and morphemes as patterns of components to find in dance; she identifies her analogous terms as "kineme" and "morphokine." Kaepler states theoretically:

Kinemes are those actions and positions which, although having no meaning in themselves, are the basic units from which all dance of a given tradition is built (174).

According to Kaepler's examples e.g. L_1 kineme stands for a step forward; the L_{4d} means a jump with both feet forward from a closed to an open position in low level (178). The identification of a kineme, actually a block of complex movements, as the smallest unit of dance supports Kaepler's statement that: "After the inventory of kinemes has been delineated we can analyze how they are combined to form larger units" (176).

The common features of the above dance analytical concepts are that they:

- segment movements by rhythmical units;
- the smallest unit may include movements of different body parts;
- polikinetics is valid only for different limbs (arm, leg, head) and the torso, or for different dancers;
- none of them identify which movement analytical system is used—therefore, how can we know what a "step" actually means in these analyses?

Parallel Events

A paramount difference between how speech (or musical) sounds and movements convey information is that speech sound, as an abstracted entity, is—more or less—a static phenomenon, while, in contrast, *movement is the change itself:* the inherent feature of a single movement is the change in which it is realized. However, apart from this well-known characteristic of movement, the movement element/kineme concept might work, if another, more definitive and significant difference between the smallest unit of speech, a single sound, and the metrically separated smallest unit of dance, a single movement, couldn't have been established: *a single movement by one body part may include several, equivalently expressive changes at the same time.* A single, identifiable change, separable from other changes, is called here an *event of movement*.

In figure 3, the only expressive content of the two beats is the bending and stretching of the supporting legs, in other words dropping and raising the center of weigh; no other change is noted. The two supporting legs perform concordant movements in each rhythmical unit and each \downarrow represents a *single event* movement. In figure 4 similar changes of support level (rise and drop of the body) as in figure 3 are completed with outward and inward rotations of the supporting leg (the first one for a heel click, the second as its preparation—if the sequence is repeated). The two, distinctly different movement concepts—the change of level and the rotation—are performed simultaneously; *two independent events* are performed during a rhythmical unit of \downarrow as the supporting legs move in accord. Independency of events means the possibility of performing one without the other; a change of level is possible without rotation and vice versa, a rotation of the leg can be presented without changing the level of support.

In the last \uparrow of figure 5, the legs are in a closed position, and the level of support is unchanged as well. The expression of dance is manifested in the observable change of parts of the foot, from heels to the whole foot. Because only one change can be observed, the last \downarrow of figure 5 is a single event movement. However, in the second \downarrow of figure 6, two distinct events are performed simultaneously, the same change of the parts of the foot as in figure 5, accompanied by the change of support level; in this motif both movements of the first \square rhythm comprise two parallel, expressive, therefore significant events.



In the above examples the structure of support, the relation of legs compared to each other do not change. In figure 7, the parts of the foot, and even the level of supports remain unchanged,² but the legs alter positions from first to second and back. In this approach of analysis we are interested in the actual displacement of the legs, which can be seen best as the displacement of the feet. The content of consecutive movements in figure 7 is limited to the directional change alone, therefore these movements of the supporting legs represent single events. In figure 8, the displacements of the feet are accompanied by two further, different events: the rotations of the legs and the direct, undeviating change of the vertical level of the body.³ The example in figure 9 is even more complex, the three changes (events), direction, level, and rotation are completed with the change of the parts of the foot. Figure 10 adds another type of event beyond those already discussed: the whole body is travelling from its previous place to a new one, in the first beat to the right, in the second to the left. Figure 11 introduces a new event again, that of turning around the vertical axis of the body; simultaneously with performing the turn, the dancer changes the relationship of the supporting legs to each other, changes the level of support, and the parts of the foot that contact the floor. (The change of part of the foot may not possess special expressive feature in this context. It may be regarded as an additional feature of elevating the level of the body. However, without even regarding the change of part of the foot as a significant event, the three others are performed at the same time in a single rhythm value of a \downarrow .)



 $^{^2}$ Types of changing verticality while springing are discussed in Fügedi's paper "Springs in Traditional Dance: An Analysis and Classification." Here, a minor difference of indication is added. Formerly the small arrow represented only the directness of change of support levels and pointed always upward. In practice during reconstructions, upward pointing arrows for different movement directions of the center of weight were confusing; therefore now the direction of the arrow (pointing upwards or downward) represents respectively the direction of change of support level. Just as the indication of direct springs was discussed with Ann Hutchison Guest, who suggested applying arrows, she was also consulted about this small modification at the 2017 conference of ICKL in Beijing. She approved the change as it helps comprehension.

³ The importance of the change of vertical level has been stressed several times primarily by Norwegian ethnochoreologists, see e.g. Bakka (108) and Blom (423).

The line of examples finishes with figure 12, which represents a special correlation of parallel events. In beat one, the dancer turns to the right, elevates her body from a lower level of support to a higher one, and during the \downarrow synchrony of these two events she performs two heel drops in $\int \int$ rhythm. During a fluent couple of parallel events a third one is performed twice; all three are performed by a single body part, one supporting leg. Beyond its charming beauty, the composition is fascinating: the small, staccato downward directed movements of heel drops are in contrast to the continuous elevation; apart from an aesthetic appreciation, no linguistic model can reflect the intricate inner structure of this multilayered movement.

All the above events are *distinct* ones. Each can be performed alone, as a single, significant movement of expression or in combination in the flow of dance, always possessing definite rhythmic value. The events cannot be categorized as "allokines," as different realizations of the same content; their presence is intentional and expressive, and depend upon the decision of the dancer. These events are abstract concepts; their embodied expressions are always multiplied by the possibilities in space.

Conclusions

The reason researchers apply concepts from linguistics, musicology, or even technology is that dance research as an academic field of science, with its *own* analytical disciplines, notated, discussed, and concluded, does not exist. The parallel existence of events, especially when events with different rhythms are synchronous as in the last example above, questions the general validity of language-based dance analysis. The complexity of content, manifested in even a minimal number of cited traditional dance examples from East Central Europe, the simultaneity of different action events by a *single* limb calls attention to the importance of content analysis. It can be a starting point for research concepts independent from linguistics, musicology, or any other field of the humanities.

The exceptional strength of kinetography, the one that cannot be surmounted by concepts stemming from other fields, by any technology, is that it is rooted in understanding and interpreting movement. It is an indispensable tool to establish real, valid choreology with a persistent search for expressions in dance. However, historical examples prove that any applied system of notation declines if its constant development ceases.

Acknowledgement

This research was supported by project no. K 142270, which was financed by the Hungarian National Research, Development, and Innovation Office.

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