



Arm positions and movement analysis that are used on the upper extremity in Bolu women dances

Nihal Ötken¹

Abstract

Folk dances are the cultural products that are created by the people and transferred from generation to generation. These cultural products have a very rich variety that differs from region to region, in terms of style and type. These differences are tight-knit with the past, civilization level, beliefs and traditions of a society which creates every dance. These differences also reveal themselves on elements, such as the movement styles used during the dance, dance forms, the accompanying music, rhythm and costume. Thus, the differences that are seen on all of these factors appear as the dance richness. Being a part of this richness, Bolu women dances have a remarkable significance among the folk dances, as well.

The process of recording and analyzing the movement scientifically has been made with a gradually increasing consciousness in also folk dances, just like in all other disciplines related to the body. Considering that our folk dances have been changing each passing day as a part of the tradition as well, it is inevitable to determine our existing dances in terms of all of the elements that constitute them and hand them down the next generations. Therefore, some of the women dances of the region of Bolu, Which is a small city in Turkey, will be discussed in terms of the factor of movement that constitutes the dance and examined in this article.

The arm positions that are used on the upper extremity which is one of the main parts of the body in the dances of Adayolu, Men men, Karaköy Sekmesi, Ziller, Estireyim mi, Halimem, Değirmen and Ördek that are still being performed by women in the center and villages of Bolu, were determined through being assessed via some video images that are shot during various shows and competitions. These determined positions were exposed by digital camera records that were taken for this study one by one and the determined visual material was computerized with the help of various programs. After this phase, the analysis of the movement styles used in these positions that were transferred to the digital media was assessed for each link on the upper extremity one by one and then discussed. Considering that Turkish folk dances do not have a written movement terminology yet, the movements were represented through using international terms that are used in medicine, anatomy and kinesiology.

Keywords: Folk Dances, Women Dances, Bolu, Movement, Analysis

¹ Associate professor, Turkish Musical State Conservatory, Turkish Folk Dances Department, otken@itu.edu.tr

Introduction

Folk dances are our folk culture products that have very rich dance types. They differ not only from city to city, but even from village to village. These differences also reveal themselves on elements, such as the movement styles used during the dance, dance forms, the accompanying music, rhythm and costume. Thus, the differences that are seen on all of these factors appear as the dance richness. Being a part of this richness, Bolu women dances have a remarkable significance among the folk dances, as well. The dances which are still performed in the center and villages of Bolu are mostly encountered in traditional places, as well as shows that are organized for various purposes and especially competitions related to the folk dances. The region of Bolu, which participates in the competitions, are presented with women dances with a rate of 90 %. When Bolu women dances are mentioned, primarily the spoon dances are remembered. Bolu women dances have been assessed within the spoon dances in the books (Baykurt, 1965, Ataman, 1975, Demirsipahi, 1977) related to folk dances so far. Although the spoon dances are generally performed with crowded masses, the dancers perform the dances individually without grasping one another. Since the spoons in their hands are used as means of rhythm, such dances are called spoon dances or dances with spoon.

The effective factors in the processes experienced by the Turkish Folk dances from past to present have caused the constitution and variety of the dances. As a result of these factors, different movement styles and details on these styles emerged on the human body with different characters through showing differences from region to region. For example, the basic movements that are used in a region may never be seen in the other. Or when the same movements are used with different combinations, it might be perceived as a quite different movement. As a result of the examinations carried out with movement analysis, it was seen that different dance types existing within the folk dances have specific characteristics, in terms of movement styles. These movement styles, which include characteristics specific to the dance, region and even the dancer, are also effective on the constitution of the general dance character in the region. Therefore, concerning the folk dances, before resolving the figures, rhythmical and melodic analysis of the dance, comprehension and analysis of the language of the body which performs the dance in harmony with rhythm and melody should come before all other elements. (Ötken, 2004)

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The studies related to the movement analysis in the folk dances have started to accelerate in recent years. This field, which is seen as one of the factors for the constitution of the folk dance types especially at universities, has started to be approached as a research subject in graduation studies (Aktaş, 2001), thesis (Sürenkök, 2000; Ötken, 2002; Gülbeyaz, 2005) and different publications (Adsheat, 1988; Nikolaos, 2004; Zeren, 2006). The methods that are used in these studies which scientifically approach the movement analysis could be accepted as a convenient and complete conceptual framework to explain the movement. In short, movement analysis systems are the basis for the accurate explanation of the movement.

In order to be able to determine the movement styles used in Bolu women dances, primarily 8 of the games that are still being performed in traditional environments and that are most frequently put on stage today were chosen. These dances are called Adayolu, Men men, Karaköy Sekmesi, Ziller, Estireyim mi, Halimem, Değirmen and Ördek. These dances, which are performed by women, were analyzed on the basis of camera records taken during various shows and competitions and visual material obtained from the photographs that were taken for this study. During the dances which were analyzed through being transferred to the digital media with the help of various computer programs, the movement styles that were mostly used on the upper extremity were determined. These movements are given below, according to their upper extremity parts. Determining the arm positions used on the upper extremity during the dances, the analysis of the movement styles that are formed in a combined way on the shoulder, elbow, wrist and finger joints in these positions were represented in a detailed way.²

In order to describe the movements that are formed on the body, we primarily need to determine on which part of the body the movement is. Therefore, the examination of the movements is divided into four main parts as body, head, trunk, upper extremity and lower extremity. These main parts, on the other hand, are divided into lower sections and various movement styles are formed via the joints on these lower sections. The number of movements that are formed on each joint is different.³

² In this section, I would like to thank the students of İTÜ TMDK Department of the Turkish Folk Dances, Süreyya Er, Irmak Engin, Seren Dalay, the graduate Canan Çetin and the Research Assistant Sonay Ödemiş, who are related to the performance and exposure of the dances.

³ The resources to be utilised in order to obtain a more detailed information about all body parts, movement styles that are formed on these parts and plans and platforms where these movements are formed; Nigel Palastanga, Roger Soames, Derek Field, 2006, *Anatomy and Human Movement: Structure and Function*, Elsevier Ltd.; Nihal Ötken, 2002, *Determination and Anatomic Analysis of the Basic Movements that are Used in the Folk Dances*, İTÜ Institute of Social Sciences, Proficiency Thesis in the Unpublished Art; Josef S. Huwyler, 1999, *The Dancer's Body, A Medical Perspective*

Movement Types that Exist Anatomically on the Upper Extremity

The first step to be taken during the movement analysis is to know the movement types that exist anatomically on the human body and on which joints and approximately with which angles these movements could be formed. Each joint has their own movement types and numbers. While some of the movements have the same names, they might also get formed on different joints with different shapes. However, in order to prevent a contradiction in terms terminologically, the same terms are used for movement styles on each joint, even though they are visually different. These terms are the international terms used in medicine, anatomy and kinesiology. (Szunyoghy, Feher 2000: 13)

The shoulder has 13 types of movement ability anatomically. A part of these is the shoulder band movement which also includes the shoulder blade and collar bone, outside of the shoulder joint. The original spellings and abbreviations of the movement terms are depicted in this section (Feneis, 1999).

- Flexion (F): The convergence movement of body parts with one another, together with the reduction of the angle between them.
- Extension (EXT): In contrast with the abduction movement; the divergence movement of body parts from one another, together with the extension of the angle between them.
- Abduction (AB): The divergence movement of the organ, that makes the movement, from the center line of the body.
- Adduction (AD): In contrast with the abduction movement; the convergence movement of the organ that makes the movement, with the center line of the body.
- Horizontal Abduction (HAB): The divergence movement of the organ, that makes the movement, from the center line of the body in the horizontal plan.
- Horizontal Adduction (HAD): The convergence movement of the organ that makes the movement with the center line of the body in the horizontal plan.
- Internal Rotation (IR): The rotation movement of the organ, that makes the movement, towards the center line of the body, around its own axis.
- External Rotation (ER): The rotation movement of the organ, that makes the movement, from the center line of the body towards out, around its own axis.
- Scapula Retraction (SR): The movement of pushing the shoulder band backwards.

- Scapula Protraction (SP): The movement of pushing the shoulder band forward.
- Elevation (E): The movement of pulling the shoulder band upwards.
- Depression (D): The movement of pulling the shoulder band upwards.
- Circumduction (C): The movement which requires the movement center, in other words the intersection point of the axial, to be on top of a cone, where the tip of the organ will move throughout the base of the cone. This movement is not always a completely coned movement. This movement may have a little bit more sliding towards one side and a little bit less sliding towards the other.

The elbow joint consists of 4 types of movements, anatomically.

- Flexion (F)
- Extension (EXT)
- Pronation (P): The rotation movement of the forearm in such a way that the palm is downwards and the back of the hand is upwards, when the elbow has a flexion of 90 °.
- Supination (S): The outward rotation movement of the forearm in such a way that the palm is upwards, when the elbow has a flexion of 90 °.

The movements that exist on the wrists and fingers have 5 types.

- Flexion (F)
- Extension (EXT)
- Abduction (AB)
- Adduction (AD)
- Circumduction (C)

Arm positions in Bolu women dances that are used on the upper Extremity and movement analysis in the positions

Totally 8 different arm positions were determined during the dances that were subject to analysis. Some of these positions are seen in almost all of the dances. As well as arm positions that show a continuity from the beginning of the dance until the end, arms positions, that add a characteristic to the dance even though they are used for a short time in certain parts of the dance, were also determined. These characteristics were mentioned in a detailed way during the analysis of the positions. Since these arm positions that are used in the dances do not have name special to the region, they are approached with numbers here.

The First Arm Position: It is seen in all of 8 dances that were analyzed. It is determined to be the most frequently used position among Bolu women dances. While this arm grasping, which can be depicted as the basic arm position of Bolu women dances, is used in all of the dances, it appears in certain parts of some dances. For example, while it is a basic arm position for all of the dances, such as Adayolu Halimem and Değirmen, it is used in certain parts of the dances, such as Estireyim mi, Karaköy sekmesi, Ziller, Ördek and Men men.



Figure 1 (Ötken). The First Arm Position

Concerning this arm grasping that is called the First Arm position, there is an abduction of approximately 45° on the shoulder joint together with sagittal and horizontal plan, internal rotation movements; a flexion of approximately 90° on the elbow joint and a very small angled extension movement on the wrist joint while it is performed with the suspension. Both hands have double spoon and thus, each finger joint have different grades of flexion movements, caused by the way the spoons are held. (See. Figure 1). As the spoons are clashed within the rhythmical structure, flexion and extension movements on the finger joints are repeated within this rhythmical structure.



Figure 1 (Ötken). The Second Arm Position (Side View)

The Second Arm Position: It is an arm position used during the dance called Estireyim mi among Bolu women dances. It is the basic arm position used during the whole dance, even though the dance includes short-time different arm transitions in between. In this arm grasping that is called the Second Arm position; the movements are symmetrically repeated on both shoulder joints. While an abduction movement of approximately 45° is performed at the forefront of the body on the right shoulder joint with the flexion, the same adduction movement is performed at the back of the body on the left shoulder joint with the extension. Meanwhile, both elbows have flexion and pronation movements together. (See. Figure 2).



Figure 3 (Ötken). The Second Arm Transition Position

While transitioning to the symmetry of the position, both arms make an abduction movement of approximately 45 degrees on the shoulders with an extension movement that is close to

the solid angle on the elbows within the same timing and the movements are repeated on the other side with the left shoulder adduction. (See. Figure 3).



Figure 4 (Ötken). The Third Arm Position

The Third Arm Position: It is an arm grasping that is used especially during the rotations of 360 degrees from right and left, in Bolu women dances. The analysis of the movements in this position is as follows. While the right shoulder makes an abduction movement of approximately 45 degrees in the frontal plan, the right elbow has the very small angled flexion and suspension movements together. While the left arm makes a very small angled flexion in the sagittal plan at the same time, the left elbow joint makes the flexion and pronation movements together. (See. Figure 4).



Figure 5 (Ötken). The Third Arm Position (Back View Symmetry)

The same movements are symmetrically repeated while turning towards the opposite direction on the other side. (See. Figure 5).



Figure 6 (Ötken). The Fourth Arm Position

The Fourth Arm Position: Our fourth arm position is an arm grasping that is only seen in the dance of Karaköy sekmesi. While both of the shoulder joints make a flexion movement of approximately 90 degrees, the adduction movement is also performed on both shoulders in the horizontal plan at the same time. Again, flexion and pronation movements of approximately 90 degrees are also together on both of the elbows. The arms are crosswise in such a way that the right wrist is on the left wrist. (See. Figure 6).



Figure 7 (Ötken). The Fourth Arm Position (Side View)

In the fourth position, while the elbows are taken from the flexion to the extension without the divergence of the wrists from one another, the shoulder joints increase the degree of the

flexion movement up to 100 degrees. (See. Figure 7). The fourth arm position repeats the movements depicted in figure 6 and figure 7 successively, in company with the rhythmical structure of the dance.



Figure 8 (Ötken). The Fifth Arm Position

The Fifth Arm Position: Another arm position that is only seen in the section of Karaköy is used together with the waist flexion performed by the dancer with an angle of approximately 45 degrees. While the left shoulder joint makes a flexion movement of approximately 45 degrees after the weight of the arm is decontrolled, the elbow joint is at full extension. While the right shoulder makes retraction, the right elbow makes a small angled flexion. While the right shoulder makes retraction, the left shoulder performs the protraction movement paralleled, at the same time. (See. Figure 8).



Figure 9 (Ötken). The Fifth Arm Position (Symmetry)

As the position progresses, while the right shoulder makes protraction, this time the left shoulder performs retraction. (See. Figure 9). The position depicted in figure 8 or 9 is successively repeated within the rhythmical structure. This arm position is used during some certain parts of the dance, rather than the whole dance.



Figure 10 (Er - Çetin). The Sixth Arm Position

The Sixth Arm Position: Another arm position that is used in Bolu women dances is a basic arm position used in the dance, Men men. This position, which gives the characteristic of the dance, is used in the parts of walking that are maintained in the beginning and at intervals, rather than the whole dance. While abduction movement is made on the right shoulder joint and adduction movement on the left shoulder joint with small angles, both of the elbows have flexion movements of approximately 40-45 degrees. Flexion movements are made on the wrist and fingers. In the anatomic position, the sticks of the spoons are clashed during this oscillation which is performed rightward on the arms. (See. Figure 10).

As the position is moved to the Left, extension movement is made on the left elbow, in contradistinction to the increase of the flexion angle on the right elbow. However, the spoons do no clash during the oscillation that is performed rightward. (See. Figure 11).



Figure 11 (Er - Çetin). The Sixth Arm Transition Position

The exposures seen on 10 and 11 are repeated successively in certain parts during the dance, in accordance with the rhythmical structure.



Figure 12 (Ötken). The Seventh Arm Position

The Seventh Arm Position: An abduction of approximately 90 degrees and besides, internal rotation are made on both of the shoulder joints in the frontal plan together with an adduction of approximately 45 degrees on both of the shoulder joints in the horizontal plan in the determined seventh arm position. Meanwhile, a flexion and pronation of 90 degrees are made together on the elbow joints. When the wrist has an anatomic position, flexion movements of different angles are made on the finger joints, owing to the way the spoons are held. (See. Figure 12). It is one of the basic arm positions used during the dance Ördek among Bolu women dances and this arm position substantially brings the main character to the dance, even though the dance includes different arm positions with short transitions. Increasing and decreasing the angle of the abduction movement successively on both of the

shoulder joints within the rhythmical structure of the dance, a flapping-like movement is formed. As is evident from its name, this arm position that is used during the dance Ördek, represents the wings of a duck.



Figure 13 (Ötken). The Eighth Arm Position

The Eighth Arm Position: One of the arm positions used in Bolu women dances is a basic arm grasping that is used during the dance, Ziller and it is only seen during this dance. As the right shoulder joint makes a flexion movement of approximately 90-100 degrees in the sagittal plan, the right elbow has a flexion of 90 degrees. Left shoulder has the anatomic position and left elbow makes a flexion of 40-45 degrees. (See. Figure 13).



Figure 14 (Ötken). The Eighth Arm Position (Side View Symmetry)

These movements are symmetrically and similarly repeated on the other side. (See. Figure 14). Just like in other dances that were analyzed, the spoons in the hands are rung through

clashing in accordance with the rhythmical structure, throughout the dance. Therefore, flexion and extension movements are successively repeated on the fingers of both hands, in accordance with the rhythmical structure.

Conclusion

The determinations obtained as a result of the movement analysis of arm positions on the upper extremity, concerning the dances Adayolu, Men men, Karaköy Sekmesi, Ziller, Estireyim mi, Halimem, Değirmen and Ördek are as follows.

As it is indicated in the previous parts, the shoulder has 13 types of movement skills anatomically. As a result of the examinations, it was seen that only 11 of these movement types are used in Bolu women dances. These movements are; Flexion, Extension, Internal Rotation, External Rotation, Abduction, Adduction, Horizontal Abduction, Depression, Retraction and Protraction movements. The movement types that are never used were determined to be Elevation and Circumduction in the dances that were examined.

All of 4 types of movements that anatomically exist on the elbow joint are used in Bolu women dances. It was determined that 4 of 5 types of anatomic movements existing on the wrist and fingers were used during the dances that were examined. The only movement that is not used is the circumduction movement on either the wrist or the fingers.

8 different arm positions were determined, that are used in Bolu women dances. While some of the determined positions could be used in all of the examined dances, some of them could be used in only one of them, continually or with short transitions.

For example, it was determined that the arm position called the 1. arm position was used in all of 8 games; in all of the dances called Adayolu, Halimem and Değirmen and in some certain parts of other dances.

While the 6. arm position appears as the basic arm position of the dance Men men, it was determined to be used only in some parts of the dance Ziller for a short time.

The arm graspings called the 2.3.4.5.7. and 8. arm position, on the other hand, appear only during one each dance. These positions, which are encountered as the basic arm positions of these dances, are never used outside of the aforesaid dances. They have not even been encountered as the short-time transition positions in some certain parts of the dances or among the figures.

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As a result of the examinations, it was determined that the 2. arm position is used during the dance Estireyim mi, the 3. 4. and 5. arm position is only used in the dance Karaköy sekmesi, the 7. arm position is only used in the dance Ördek and the 8. arm position is only used in the dance Ziller.

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Footnotes

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3 For a more detailed information where movements are visually supported by photographs concerning this subject, see N. Ötken, "Recognizing the body functionally", *Folklor*, c. 6, pg. 52, 2003, p. 20-27