MUSICAL MOVEMENT: TOWARDS A COMMON TERM FOR MUSIC AND DANCE

by Jörgen Torp

Preface: Ontological questions

What is music? In my view, this is the most basic question in all musicologies, be it the so-called systematic and comparative musicology (according to Guido Adler's founding article of 1885), the historical musicology of "Western art music," ethnomusicology, or other existing as well as possible musicologies, as far as they are oriented towards a generalizable term such as the term "music" is.[1]

"What is music?" is not a question other authors necessarily find very promising. In their introduction to "Dance–Music Relationships," Anca Giurchescu and Lisbet Torp write:

> In our presentation, we do not intend to make any attempt to answer the questions what is dance? and what is music? It is evident that these complex means of expression are differently conceptualized in different cultures. Consequently, the questions what is dance? and what is music? can only be answered with a counter question: TO WHOM? (Giurchescu and Torp 1995:143)

Marcello Sorce Keller generally states his

> growing uneasiness with the word "music," what I call a "word of mass deception," overloaded with romantic overtones, and giving the impression that it corresponds to something solid and definable existing out there—whereas it does not … In ethnomusicology we know quite well how problematic the term "music" really is, and how many cultures employ specialized terminology to indicate different forms of organized sound, avoiding any catch-all concept. (Sorce Keller 2012:166–67)

On the one hand, Sorce Keller suggests "that along the process leading from 'non-music' (however defined) to what we call 'music' (however defined), so spread out in time as it is, across cultures, and quite probably, across animal species and genera, there are no sharp borderlines or sharp transition stages" (ibid.:167), but on the other hand he criticizes that "the term 'music' has little heuristic potential and is rather a blanket term which blurs all differences" (ibid.:167, n. 4). In other words, the term "music" is considered to be too narrow (to describe transition stages),

1. The phrase "musical movement" in the title of my paper refers to "movement" as a possible term related to music as well as to dance. Musical movement may be understood as an expression for movement *in* music or movement *of* music as well as for dance as musically accompanied movement. The search for common terms of music and dance has in my mind developed since the founding of the ICTM "sub-study group on dance and music relationship" in Szeged in 2002 as part of the Study Group on Ethnochoreology. In this article, however, movement as an intrinsic—and not necessarily "bodily"—musical term is in the foreground.

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but also too broad (to describe cultural differences). In the net of such a two-sided critique, the term "music" indeed seems to have no prospect. Sorce Keller prefers to speak instead "about 'sound-centred,' 'sound-enhanced,' 'sound-complemented' forms of behaviour" (ibid.:167). Taking into account that Sorce Keller refers to "forms of behaviour" and not directly "sound," let me point out that I myself feel uneasy with musicologists' only focusing on "sound." Sound is certainly a highly relevant term in musicology, but it overlays other terms that may be equally useful, such as "movement." Sorce Keller in his plea for a zoomusicology (why "musicology," when the term "music" appears to be inadequate for him?) speaks also of "organized sound," without necessarily meaning "humanly organized sound," as John Blacking had titled the first chapter of *How Musical Is Man?* [2]

Blacking titled a section of another work with precisely the question: "What is music?," focusing here on music's social and cultural embedding. This part begins:

> Music is sound that is organized into socially accepted patterns, and music-making may be regarded as a form of learned behaviour. However much it may be argued that consonance and dissonance are related to the acoustic properties of sound, it has long been known that musical systems are not natural but highly artificial, and that consonance and dissonance are simply "learned responses, adaptations to an existing pattern of the social group." (Blacking 1969:36–37, quoting Cazden 1945).

Such assertions influenced the fields of ethnomusicology, and social and cultural anthropology. Blacking certainly widened the view of the social and cultural circumstances of music, including Western art music and its historical musicology, which at times reduces the observed music to purely aesthetic views of art for art's sake or to results of formal analysis. However, if we do not want to question the "acoustic properties of sound" in general, it has to be admitted that consonance and dissonance cannot be explained sufficiently while neglecting the acoustic properties of sound. Here acoustic and psychoacoustic investigations are of importance. This is just one example of how to study ontological or general terminological questions. To a certain extent, a cultural case also relates to a "secondary system" of terms,[3] which cannot directly be deduced from individual cases.

On the one hand, the understanding of concrete musical formations is relative to historical layouts, particular functions, individual perceptions, the actual linguistic constructions of descriptions (or current language), and culturally determined texts and contexts, the latter of crucial importance in the field of ethnomusicology with its variety of different cultural settings.

On the other hand, it is worth considering music as an interculturally discernible phenomenon. Roman Ingarden (1893–1970) pointed out in his writing on the phenomenological ontology of the musical work[4]—a philosophical investigation

2. Blacking wrote there: "Music is a product of the behaviour of human groups, whether formal or informal: it is humanly organized sound" (1973:10).

3. See the postscript of this article.

4. After Ingarden had finished *Das literarische Kunstwerk,* he wrote several further parts as appendices in Paris in 1928, among them one on the musical work. As these parts were too long to be included, *Das literarische Kunstwerk* was published without them in 1931.

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on the essential character of the musical work as "purely intentional objectivity" (*rein intentionale Gegenständlichkeit*) (Ingarden 1962:viii)—that to value music (for Ingarden more precisely, a musical work) requires a knowledge about "what a musical work generally is" (ibid.:28).[5] Interesting from my point of view is that here (for whatever reasons) ontological questions are placed first.

I also keep in mind that musical ontology is seen as problematic by other authors. Sorce Keller (2012:167) questions that "'music' may refer to something ontologically solid in possession of *Homo sapiens*." Blacking maintains "that no musical style has 'its own terms': its terms are the terms of its society and culture, and of the bodies of the human beings who listen to it, and create and perform it" (1973:25). Firstly, without discussing Blacking's point of view at length, I would like to note that so-called systematic musicology especially often investigates "pre-cultural" aspects of acoustics and psychoacoustics. Secondly, music (and also "musical works" in the sense of Ingarden) contains aspects "in its own terms." Finally, the terms "society" and "culture" are not self-explanatory in their meanings, but complicated topics that themselves have to be interpreted and reinterpreted (see, e.g., Latour 2005).

As Ingarden refers mainly to the "absolute music" of Western art, his observations relate to preconceptions that cannot be completely shared when looking at the diverse musical phenomena of the world. Also Ingarden's focus on the term "musical work" instead of just "music" is problematic in view of a more general understanding of music in its cultural diversities. Moreover, the proposition about and focus on "pure" and "absolute" music are questionable features when connections to actually or possibly related phenomena—like dance—are studied. However, Ingarden's investigations are notable for studies with different foci, especially his inclusion of the term "movement" in the chapter on "the non-acoustic moments of the musical work." I will refer to this below.

In any case, the various cultural musical phenomena may be as different as might be expected, and the imaginable terminology for their description of equal variety: as long as the researchers conjoin under the umbrella of a subject relating to the term "music"—such as "ethnomusicology" or "traditional music"—they have to recognize a general similarity to their fundamental term (namely music).

However, a section on music was published in Polish in 1933 in the journal *Przegląd filozoficzny*. Rewritten in German in 1957, it was published together with other parts in 1962. An English translation of the 1962 book appeared in 1989. In this article I translate into English from the German version. I got to know about the relevance of Ingarden's writings from a hint from the philosopher and dance researcher Gediminas Karoblis.

5. The full text is: "Um aber zu erklären, wodurch sich 'gute' Musik von der 'schlechten' unterscheidet, muß man bereits wissen, was 'Musik' oder genauer: was ein Musikwerk überhaupt ist. Lediglich diese essentielle Frage hat momentan für uns eine Bedeutung, da wir hier letzten Endes auf ontologische Probleme der Seinsweise und der Identität des Musikwerkes als Kunstwerkes besonderer Art hinsteuern [to explain, however, the distinction between "good" and "bad" music, one has to have a clear notion of "music" or more precisely of what a work of music actually is. It is this essential question that has significance to us at present since by the end of the day we are heading here towards issues of the ontological mode and the identity of a work of music as a work of art in its own right]."

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In this way they will presumably also have an approximate idea about the term's common general meaning.[6] Even Blacking agrees:

> Although different societies tend to have different ideas about what they regard as music, all definitions are based on some consensus of opinion about the principles on which the sounds of music should be organized. No such consensus can exist until there is some common ground of experience, and unless different people are able to hear and recognize patterns in the sounds that reach their ears. (Blacking 1973:10)

Ingarden's implication of movement in his ontology of music

As Ingarden's book on the musical work aims at ontological issues of music, it is worth noting that he also includes musical movement. Ingarden's text comprises eight chapters (denoted as sections, §) dealing with "the problem of identity of the musical work," as §8 is titled. For our purposes, more interesting chapters are §4[7] and §5.[8]

Movement here is regarded as belonging to music sensu strictu.[9] Ingarden's main example for movements (or apparitions of movements, as he puts it: *Bewegungserscheinungen*) is developing melodies or developing melodic "lines" (Ingarden 1962:67): "we speak of a musical motion [movement] first of all about melodies in progress, particularly when several "voices" develop simultaneously or successively, like (for example) in a fugue by Bach."[10]

6. An analysis of various applications of the term "music" in Western cultures throughout the centuries would uncover distinctive usages, but that does not necessarily inhibit the rather wide and general appropriateness of the term in other circumstances.

7. "The musical work is not a real [concrete] object."

8. "Acoustic and non-acoustic moments of the musical work," with its two sub-chapters, §5A ("The tonal [acoustic] base of the musical work") and pre-eminently §5B ("The non-acoustic moments of the musical work"). The "non-acoustic moments" again are subdivided into seven moments, which are: (1) immanent structure of time; (2) appearance of movement; (3) "forms"; (4) emotional qualities; (5) expressed feelings; (6) descriptive motifs; (7) aesthetic value qualities. These subdivisions are of unequal length. The part on aesthetic value qualities is most lengthy (sixteen out of thirty-nine pages), followed by the moments of emotional qualities and appearance of movement.

9. Only four pages of the sub-chapter go beyond music sensu strictu. These are the pages on "expressed feelings" and "descriptive motifs."

10. "Von einer musikalischen Bewegung muß vor allem bei den sich entwickelnden Melodien gesprochen werden, besonders wenn mehrere 'Stimmen' sich gleichzeitig oder die eine nach der anderen sich entwickeln, wie es z.B. in einer Bachschen Fuge der Fall ist" (Ingarden 1962:67).

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The topic of movement and music was studied in musicology in the 1920s and 1930s (e.g., Truslit 1938; Broches 1938;[11] Timmermann 1940[12]). Timmermann as well as Broches mentioned having used material from the Society for Scientific Research of Problems of Musical Movements (Gesellschaft zur wissenschaftlichen Erforschung musikalischer Bewegungsprobleme), an academic association founded by Wilhelm Heinitz in 1933.[13] Movement became a topic again in the

11. Raphael Broches's work was one of the earliest dissertations in the subject of comparative musicology at the University of Hamburg, as the Musicological Institute as such was not founded there until 1949. From today's point of view, this dissertation is not of striking interest as it uses the outdated theory of types developed by Joseph Rutz (1837–1895) and his son Ottmar (1881–1952), Eduard Sievers (1850–1932) and Wilhelm Heinitz (1883–1963). The case of Broches is a particularly tragic one. A Warsaw-born Jew, he received his doctoral degree in Hamburg during August 1938 (with Heinitz and Giulio (Edmondo) Panconcelli-Calzia (1878–1966) as main evaluators, and Georg Anschütz (1886–1953) as secondary assessor; see following footnotes). Already considered a member of the Palestine Orchestra, he was expected to be back in Palestine in November 1938. During that time he was concerned with the printing of his thesis. Shortly before the date of his planned departure to Palestine, he was captured and transported to a detention camp for being a Jew. He probably died in Treblinka concentration camp in 1941 or 1942 (see Lühe 1998:130–32).

12. Henry Timmermann used material from psychology, music psychology, music aesthetics, and comparative musicology (1940:15). The main evaluator of his thesis was Georg Anschütz from the Institute of Psychology; the second assessor was Wilhelm Heinitz, founder of comparative musicology at Hamburg University (see below). Timmermann's thesis is generally formulated in a language that does not indicate clearly National Socialist thinking. But he does not mention the dissertation by Broches in his bibliography. It is also not very surprising that Broches is not even mentioned when it comes to the topics of "types and tendencies of motions" (*Bewegungstypen und Bewegungstendenzen*), topics related also to Broches's thesis. However, it is sad to find a clear connection with National Socialist politics in this part. Timmermann quotes a Hamburg newspaper, the *Hamburger Tageblatt* from 10 September 1938. "Command redundant! Nuremberg: cradle of music of movement. Hamburg composer Hermann Erdlen writes the NS combat-play music" (Kommando überflüssig! Nürnberg: Wiege der Bewegungsmusik. Der Hamburger Komponist Hermann Erdlen schreibt die NS-Kampfspielmusik).

13. Already in the 1920s, Heinitz had written articles related to the movement aspects of music based mainly on ethnomusicological sound sources. He worked at the laboratory of experimental phonetics, founded by Carl Meinhof in 1910 as part of the new Colonial Institute (Kolonialinstitut) and led by Guilio Panconcelli-Calzia. The latter understood the subject of experimental phonetics as a natural science. Heinitz had been an assistant at the laboratory from 1915. As he explained in the journal of phonetics *Vox* in 1927 and 1930, he tried to combine the measurements of experimental phonetics with comparative musicology. *Vox* was founded in 1913, appeared until 1922, and reappeared from 1925 until 1936. Between 1934 and 1936, Heinitz presented five reports of the Society for Scientific Research of Problems of Musical Movements in *Vox*. This was during the time when leading Jewish academics from Hamburg University (founded in 1919), like Ernst Cassirer (1874–1945; philosophy) and William Stern (1871–1938; psychology), had already left Germany. The Hamburg academics of the years following the takeover of the National Socialists played a deplorable role. Among those who in 1933 signed the "affirmation of Adolf Hitler and the National Socialist's state by professors from German universities" were Anschütz and Heinitz. Anschütz especially was involved in National Socialist activities. There is not enough space in this footnote to explain sufficiently the scientific contents of the writings of Heinitz and his students, or for reviewing an article by Hülse, Panconcelli-Calzia, and Heinitz called "Studies on the relations between general and phonation movements" (1936).

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1970s and 1980s (e.g., Nketia 1974; Blacking 1983;[14] Kubik 1983; Baily 1985; Bengtsson 1987), 1990s (Peper, Beek, and Daffertshofer 2000; Sundberg 2000; Friberg, Sundberg, and Frydén 2000), and increasingly at the beginning of the new millennium with emphasis on performance (Pierce 2007), embodiment (Leman 2008), gesture (Gritten and King 2006, 2011; Godøy and Leman 2010), children's development (Eitan and Tubul 2010), and evolution (Dean, Byron, and Bailes 2009). Nketia writes in the chapter titled "Interrelations of Music and Dance":

> Music for the dance thus performs two major functions: it must create the right atmosphere or mood or stimulate and maintain the initial urge for expressive movements, and it must provide the rhythmic basis to be articulated in movement or regulate the scope, quality, speed, and dynamics of movement through its choice of sounds, internal structural changes, or details of design. (Nketia 1974:217)

However, Nketia interprets "movement" as the physical movement of the dancers, not as a term necessarily given in the music itself, although for African music he states a close connection:

> Obviously, the aesthetics of music traditionally integrated with dance are bound to be different from that of music not designed primarily with movement in mind. When considering the form, structure, and content of African music, therefore, we must relate these to an aesthetic concept which makes the qualities of sound related to movement its primary focus of attention. (ibid.)

In the last few years, "music and movement" has also been a topic in several ethnomusicological conferences.[15] However, one can hardly state that it has been much more than a marginal topic in long-term academic development up until now.

Probably all music can be studied in regard to movement. However, dance music is a special case, since it is so closely related to the "non-musical" movements of a corresponding dance. With only a few exceptions, dance is overwhelmingly typically performed with music. On the other hand, music may also be understood as including or reflecting movement, at least in a metaphoric sense as part of musical imagery (Schneider and Godøy 2001). Musical "movements" are not necessarily to be understood as dance-like movements. The musical movement labelled "andante" (walking) in Western classical music, for example, reflects—at least in a metaphorical sense—a physical movement that is not specifically a dance movement. However, as some music is specifically dance music, the relation between music and dance may be considered in both directions. Therefore, the question of

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But as "movement" was also a political term that was central in National Socialist ideology, the political circumstances of academic work should be clearly mentioned here.

14. Blacking uses the term" movement" in the first number of *Dance Research* exclusively for describing dance movements. In this usage movement is not especially a musical term in the sense of this article.

15. Already in 2002 Marianne Bröcker edited a volume of conference papers of the German ICTM National Committee concerning "the dimension of movement in traditional music," with contributions by Wolfgang Bender, Gerd Grupe, Tamara Kurz, Gisa Jähnichen, Corina Oosterveen, and Jörgen Torp (Bröcker 2002).

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interest is not only, whether and how music informs dance movements, but also, whether and how the dance is incorporated in the music.

Tango argentino[16]

I've chosen the Argentinean tango because it is the dance that I am most experienced with and in which I can therefore comparatively easily "control" theoretical hypotheses. It is neither the process nor the aim of this article to give a holistic description of Argentinean tango music and dance. Results cannot be built up inductively from a particular dance towards statements about the relation between music and dance in general. (Even if I had chosen a multitude of different dances, a level of generally applicable terms would still not "naturally" appear as a result.) Rather a "secondary system" of possible general terms is established in the first place, from which concrete cases can be deduced, but only in relation to certain selected and simplified aspects. Consequently, the aspects of tango dance and music under study here are rather selective, simple, and do not contribute to more advanced debates about cultural and social issues. At the same time, non-tango phenomena are interwoven in the study when they contribute to the theoretical background of modelling terms. (However, working on theoretical issues should not be performed exclusively on an epistemic level of philosophy. In practice there might be an interplay between practical and theoretical matters, and quite often concrete experiences initiate epistemic thinking.)[17]

Tango is regarded here as a dance with figures and steps, which are not necessarily performed at a precise moment on the musical timeline. In a common *milonga* (tango dance hall), the dance is normally not performed with a single choreography while a piece of music is played, and a couple will not repeat a set of steps exactly as done before. Research on the question of the interrelation between music and dance may be performed through various methods, such as: registering and studying relevant literature; implementing empirical investigations and measurements; but also, including one's own experiences and concepts, or conducting fieldwork and interviews. The latter (conducting fieldwork and interviews) is probably the most widely acknowledged method in ethnology. However, I will concentrate here on examining specialized literature.

16. *Tango argentino* or *tango rioplatense* refers to the twentieth-century tango of the Rio de la Plata area, as mainly developed in the capitals of Argentina (Buenos Aires) and Uruguay (Montevideo). The complicated history of diverse tangos in the nineteenth century is not considered in this article.

17. I have given several university seminars around the topic of musical movement without touching on tango. Nevertheless, I would have liked to widen the outline of this article by discussing aspects of tango in a more anthropologically oriented way. However, a project where I could have integrated such research did not get funded, and older interviews done with dancers like Rodolfo Dinzel or Gustavo Naveira did not concretely explore the questions discussed in this article.

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A considerable number of publications have appeared on the Argentinean tango, firstly in Spanish, but they are of comparatively little academic use.[18] Only a few books are dedicated specifically to music and practical dance matters, and the relationship between music and dance has barely been touched at all. However in 2009, the *bandoneón* player Joaquín Amenábar published a small book called *Tango: Let's Dance to the Music! Tango Music for Dancers without Musical Education.*[19] The book relates to practical matters, introducing and accompanying exercises for workshops given by Amenábar.

The aim of *Tango: Let's Dance to the Music* is—as the subtitle states—to teach musical matters to dancers who lack musical training. In the following paragraphs, I will briefly describe Amenábar's main concepts. His key term is *rhythm*, even in chapters where he writes about the importance of melody. Rhythm is—according to Amenábar—defined by accents which provide the possibility "to count" the time. A line of equally accented pulses is not considered specifically rhythmic; giving different weight to the pulses in a regularly repeated order, makes it rhythmic. For example, using the basic tango rhythm of four beats:[20]

1 2 3 4 **1** 2 3 4 **1** 2 3 4 **1** 2 3 4

To enable the musically non-educated dancers to pick out the rhythmic accents more clearly in the musical piece, he marks the accents with "sound sticks," for example on beats 1 and 3. Here I'll designate the "sound sticks" with underlining:

1 2 **3** 4 **1** 2 **3** 4 **1** 2 **3** 4 **1** 2 **3** 4

Apart from the rhythm section—in the case of the Argentinean tango, it is the double bass and at times the piano—Amenábar also considers the melody of great importance for the dancers, in accordance with statements that tango dancers dance

18. The main Argentinian musicological work on tango is still the first volume of the *Antologia del Tango Rioplatense* (1980), concerning the time before 1920. The *Antología* also has a chapter on dance, but not about the relation between music and dance. It also does not discuss issues of movement in music, neither as the bodily movements of performers, nor as an intrinsic term for the music itself. My book, *Alte atlantische Tangos* (Torp 2007), is concerned with historically similar early periods (mainly nineteenth century), but with quite different issues. Relevant to this article is a chapter—not specifically dedicated to tango—on rhythm with an inclusion of movement in its (rhythm's) ontological mode. More internationally known in anthropology, political science, and dance research is *Tango and the Political Economy of Passion* by Marta E. Savigliano (1995).

19. The book has appeared in four languages (Spanish, English, German, and Italian) and includes a DVD with audio and video examples. All editions were published by Amenábar himself. The book is not meant to be for academic use, although it is ambitious in several aspects. I discuss this book for being—as far as I know—the only literature on tango that is specifically dedicated to the topics of this article. Possessing only the German version, I quote from that, and translate the quotations into English.

20. This rhythm of four steady beats began to be basic for tango music in the second decade of the twentieth century. Before that time other rhythmic arrangements were used (*Antología* 1980; Torp 2007).

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to the melody (e.g., Dinzel 1994:15). However, what Amenábar considers important in this correlation does not reflect the melody as a flowing line of tones succeeding one another. Relevant for the dancers—according to Amenábar—are the rhythmic accents played by the melodic instruments (mainly the violin and *bandoneón*). In this way the melody constitutes another rhythm that may differ from the one played by the rhythm section. Amenábar sums this up: "So when we dance on the melody and its accents and use the accentuations fully or at least partly to set our steps, we will see that we are not repeating the same dance all the time, and that our movements will depend upon the rhythm that is inherent to every melodic phrase."[21]

In Amenábar's concept, rhythm—and even melodic rhythm—is reduced to more and less accented momentary points of time. Moreover, the dancers follow the musically accented points by performing steps. The dancers "movements" are notated as shoes (steps) corresponding to the visible points of the musical notation. The dancers "movements" are reduced to short moments when their feet touch the floor. The continuously flowing movement is not described here in its quality—nor is the length of the steps in space (whether the steps are short or long).

For the purposes of Amenábar's exercises, the melody can be "spoken" as well as sung. He writes: "In accordance with the movements, both options—speak the melody and sing the melody—meet their aim in equal value because we … don't need the exact pitch of the notes for the rhythmic aspect relevant to the movements."[22]

I want to add here that Amenábar's concept includes more sophisticated material than can be seen in the simple examples of differently accentuated steady beats given above. Syncopation, off-beats, and the *tresillo* (3–3–2 patterns over the time span of four beats) are also discussed in his book. Moreover, Amenábar himself is a brilliant expert regarding the historical changes of the various rhythmic organizations of twentieth-century Argentinian tango. Dancers interested in music may learn something about relevant aspects of the rhythmic organization of the music. However, his treatment of the melody, in its dynamics so important for tango music, may lead to a result that is contrary to what is desired when going strictly by the book. Firstly, if dancers will not be moved by the dynamics of tango's melodic lines, they will not get the feeling for the music in its full range. Secondly, the relation of the music to the actual physical motion in its entire performance is not really detectable in Amenábar's book, and therefore may be concealed even more. In my assessment, Amenábar's definition of rhythm is problematic: rhythm should implicate movement or aspects of movement.

21. "Wenn wir dann mit der Melodie und ihren Akzenten tanzen und die Akzente ganz oder wenigstens zum größten Teil nutzen, um unsere Schritte zu setzen, werden wir sehen, dass wir nicht immer das Gleiche tanzen und dass unsere Bewegungen vom Rhythmus abhängen werden, der jeder melodischen Phrase innewohnt" (Amenábar 2009:39).

22. "In Bezug auf die Bewegungen erfüllen die beiden Möglichkeiten—die Melodie zu sprechen und zu singen—ihren Zweck vollkommen gleichwertig, weil wir … die exakte Tonhöhe der Noten für den rhythmischen Aspekt nicht brauchen, um den es uns in Bezug auf die Bewegung geht" (Amenábar 2009:132).

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Intersection: Rhythm and movement

Rhythm is—to my understanding—composed of two different elements:

(1) the *time points* composed of the row of possible as well as real *points of attack* and the proportion between the points, as for example presented in the following notation system, where **X** and **o** build up a regular row of possible beat attacks (**X** represents a beat that is actually played; **o** a pause):

X o X o X o X o

or

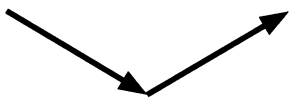
X o o X o o X o

(2) the *line* that indicates the *movement*. The movement aspect could be simplified graphically as follows:[23]



Both types of graphs (the notation of time points, as well as the line of uniform motion) are abstract. The specific movement, be it the physical movement of a dancer or the movement of musical imagery, will not be given in these forms. With respect to the graphs of time points, I want to add that the points of attack are not conceivable when not somehow connected. The connection can be represented by movements or notions of movements. The dynamics between such points are not of lesser importance than the points themselves. What happens between the points represents the movement character of flowing rhythm.

The points are also part of the dynamic play. They are not simply cutting the musical time and, as a result, leaving some proportioned static quantities of vacuous time behind. The points themselves are produced by means of movement, and they push on a following movement or rather keep the dynamically changing motion going. In this sense the term "pulse" begins to make sense.



The ways[24] in which the rhythms are performed may vary, for example: the wave-like vs. angular rhythms of the sucking/biting baby are analogical representations of different rhythmic structures (Blom 2006).

23. In physics, this graph could depict the abstract form of a rectilinear uniform forward motion, shown here as a vector (Einstein and Infeld 1956). Einstein and Infeld's text is quite interesting, as they begin their explanation of physics with the problem of "movement."

24. Jan Petter Blom called it the structure, meaning the system of time/force relationships within the flow that the character of particular rhythms depends on.

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Rhythmic *pulses* may be considered as initiating movements, but can also be described as products of the movements as *beats*. Together they form a kind of motor system. Or as an ethnographic film was titled *There Is No Movement without Rhythm* (Roebers and Leeuwenberg 2010); conversely formulated, it also makes sense: There is no rhythm without movement!

Tango again: Tempo and style characteristics

In tango music, the melodic line is finely adjusted with respect to dynamics, agogics, and the different tempo modes played by different dance orchestras. Differences in musical style and their impact on dance styles are most clearly to be observed here.

Tempo is measured upon moving objects on its journey through time in space. It is therefore related to movement, to time, and also to space. The relation to space is more easily understandable in terms of dance than in terms of music, as the dimension of space is not as evident in music aside from the diffusion of sound waves. However, without considering space, it does not make sense to talk about movement, and without movement there can be no talk about tempo. The human perception of tempo and timing (e.g., whether a piece of music is considered fast or slow) is closely related to the timing of human movement. M. Wiesendanger (2000:97) suggests that the neuronal organization of gait rhythms is paradigmatic for the organization of rhythmic motor behaviour in general. Therefore, a tempo designation like andante in music should not be scrutinized for whether walking is really suggested when playing or hearing a musical piece so named, but for what sense it makes for musical timing.

The tango is a dance of walking movements. The movements may vary in length of time as well as in length of space (big or small steps). These variations depend partly on the tempo given by the music. Even when seeing only a few simple steps in the performance of tango dancers, we can gain interesting insights.

(1) Tango is a dance of "flat" movements, without lifting up the feet far from the floor. Especially when danced in slow movements, it may look like swimming or flowing through the space, while the feet draw on the floor. In this case not only are the pulses of importance, but so is the time between the "beats," when the dancers slowly shift the vertical body axis from one foot to the other. It is the movement between the beats that matters. When the music pulsates slowly with steady, only slightly accentuated, beats—like in some passages of Carlos Di Sarli's orchestra in the early 1950s—the dancers' movements may also look like flowing through the "points," as if the movement would not be interrupted. The dancers may also pause on the spot, only filling the time with nearly invisible, emotionally-driven movements. In other slow music—like that of Osvaldo Pugliese's orchestra, especially in its later times—the beats may have strong accents in some parts, but in other parts only the violins sing in curving melodic lines. Then also pauses and slow sliding movements may be observed.

(2) Performing big steps requires more time than performing small steps. Slow music invites more space-consuming movements and figures. Complex space-consuming figures are often not practicable when faster music is played. On the other hand, faster

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> music sometimes is especially played for dancing and perceived as dance music, like that of Juan D'Arienzo's orchestra in the late 1930s. The beats are attacked sharply, from the side of the musicians and the dancers. The movement may be more vivid and lively.[25]

The distance from one beat in time to the next is filled with movement. This is visible for the dancers, but figuratively also true with regards to the music.[26] Finally, time is not conceivable without space, both (time and space) are measurable in relatable metres. And time and space relate to each other in tempo and movement.

Dancing on the melody

The relation between dance and music (particularly dance music) has been a subject of study in the ICTM Study Group on Ethnochoreology (e.g., Felföldi 1995; Giurchescu and Torp 1995), but generally speaking, dance for dance research—like music for musicology—has been a concept "in its own right" (although in ethnochoreology and ethnomusicology, it is generally considered as part of its specific cultural environment).

The new (international) wave of tango dancing since the 1980s likewise developed without particular knowledge of tango music and the differentiation of its musical styles. A more recent trend is to dance in accordance with the rhythmic accents of the music, but this "accordance" takes effect only in the feet of the dancers. This reduced notion of the dance and music relationship is, to my understanding, erroneous in relation to tango for several reasons.

Tango is a dance with comparatively few tendencies for tapping and stepping in the sense of using the feet (shoes) like percussive instruments, as we find in the *zapateos* of flamenco dance and some Argentinean folk dances, or in Irish tap dance.[27] Theoretically in the faster and more vivid *(tango-)milonga*, stepping could

25. In a Hamburg lecture-workshop in 2011, Amenábar rightly criticized the association of musical styles with dance orchestras. According to him, more important than the stylistic differentiation between the orchestras is the historical change of musical styles. He described the historical changes of tango music styles as follows: after changing to the rhythm of four steady beats before 1920, this basic rhythm is perceptible, but not completely dominant, with the melody instruments often playing in different rhythmic patterns. In the late 1930s, the rhythmic pattern of the rhythm section becomes dominant for the music as a whole and is overshadowed the rhythmic individuality of the melody. From the 1940s onwards, the reverse takes place. The basic rhythm of the rhythm section is not played throughout the piece; even the instruments of this section play varied rhythmic patterns together with the melody instruments. In the 1950s—along with Piazzolla's *tango nuevo*—the music again adopts new rhythmical patterns. Amenábar very clearly and impressively demonstrated this with many examples and analyses.

26. One may enhance the spectre of topics from motion to emotion, for example, from the slow music tempo (or movement) *grave* to the fast joyous *allegro* in classical Western art music. But that would go beyond the scope of this article.

27. Of course, "sharp" movements are also quite common and well known in tango dancing, for example, in the *ganchos* and *voleos* of the woman and in other *adornos* (adornments) of the dancers.

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be performed. However, when the *milonga* dancers are performing quick steps, these steps are short, unlike a regular, slow tango step, but also without intending to make a sound. Amenábar remarks correctly that the tempo of a quick *milonga* is too fast for performing certain kinds of steps in redoubled time (2009:81).[28] This comparison between *milonga* and *tango* is the only moment in his book where he gives importance to tempo. He seems not to recognize this importance and how tempo is related to the length of the steps being performed, just as if skilled tango dancers would have no idea of the horizontal dimension of space (and its relation to movement and time). Tempo and time proportion effect change in the length of the step and the character of the movement.

The dancers interpret the music, but not in the sense of relating their steps to musical accents on a one-to-one basis. A dancer may pause while musical accents are played, or move according to the (imagined) regular pulse when there is no musical accent played in either the melody line or rhythm section. One may also anticipate or delay the pulse, as tango singers perform *rubato*, but I have not observed that dancers often make use of this latter possibility.

Generally speaking with reference to dance, one may observe a tendency to perform beat-like movements relating to rhythmic accents, while wave-like movements relate rather to melodic phrases. The former (beat-like movements) might be up-and-down movements, the latter (wave-like movements) horizontal.[29]

Many dances include various motions performed simultaneously by different parts of the body. In tango, the upper and the lower part of the body are "divided" slightly above the hips. Although this division is accounted for by its technical function, combining the movements of the embraced partners, it also may be related to the musical sections (rhythm section and melody part).[30] The steps of the lower body often refer to the regular pulses of the music (associated with the rhythm section), while the moving dynamics of the melody played by the violins (or the *bandoneones*) may be felt in the upper body.[31] The complexity of motions and emotions cannot be described by using simple notation for just the feet.

Furthermore, even when focusing on aspects of rhythmic accents, the pitches of a melody are of interest. A simple change in the pitch of a single tone of the melody may effect a different rhythmic feeling.[32] Moreover, the melody builds up musical

28. For the purpose of this article, I define *doble* as two steps in the time of one beat, and *redoble* as two steps in the time of one step of the *doble*.

29. There are also films on YouTube, where parrots move beat-like or wave-like to particular music as described in this paragraph.

30. A distinction between rhythm section and melody part is evidently not to be understood in absolute terms. The rhythm section may also include pitch differentiation or even "melodies," and the melody part can be analysed rhythmically.

31. I observed Amenábar himself sometimes demonstrating the rhythmically accentuated play of the melodic line with movements relating to the upper part of the body. He then used his hands instead of his feet.

32. As the musicologist Peter Petersen demonstrated in a presentation on the basis of Beethoven's work on the melody for "Freude schöner Götterfunken" (known in English as the "Ode to Joy"). According to Petersen (2010), the melody compounds a multitude of different rhythmic components. Unfortunately, Petersen avoids speaking about movement and tempo in his book, as if the analysis of time in music could be done adequately without these

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phrases. The development of such melody phrases is what Ingarden considered as constitutive for the "appearance of movement" in music. The term "movement" in this sense is not composed of little changes of harmony, for example, but appears with developing melodies, aiming for even longer parts up to whole sets (or "movements," as these sets are called in classical Western art music). In this way, the "movement" begins to define the overall character of a musical piece or part. It is not infrequent that parallel to the musical character, the dance style is displayable. Tempo, spatial extension, character of musical "movement," and style of dance-movement performance are closely linked together here. Dancers move differently to different musical styles, as broached above with the examples of performance differences in the music of Di Sarli, D'Arienzo, and Pugliese, in respect to the historical epoch of particular recordings. At the same time, the character of the dance movement is also reflected in the music; it may be, for example, tender or bold.

Conclusions

Ingarden certainly was far from describing dance music. On the contrary, his "musical work" was constructed to be nothing but music. However, his understanding of the "appearance of movement" as an intrinsic moment of the musical work blazes a trail to the more general questions of movement character and style.[33] His detection of "movement" as an intrinsic part of music was an important contribution for the purpose of this article. However, I suggest a broader view. Music could be considered as part of the overall terms of "rhythm" and "movement." Such terms could also include parallel forms of arts performed in time. Music and dance share time in parallel when performed together. To understand the reality (or at least the possibility) of their relationship, we need common terms for study and analysis, as only in common terms can they meet.

Postscript: Coming to terms

In order to comprehend a phenomenon, technical terms are indispensable tools for scientific conversations, whether in natural or in cultural science. But what if even our basic terms like "dance" and "music" are considered to be "fly-by-nights"? To me it seems an erroneous beginning to think that basic terms should be able to give a *detailed* description of unique cultural matters. They function much better as meta-terms, or in "secondary systems" (Einstein), layers of simple terms logically more consistent, but no longer directly connected with complexes of sensory experience connected to the primary layer of ordinary terms and relations. In Einstein's words:

terms. Furthermore, he considers time and space as categorically different.

33. Movement as an intrinsic moment of music here means that the music moves even when the listener is lying in bed listening to music with headphones. On the other hand, it seems questionable to exclude the physically embodied movement aspects that again begin to play a significant role in recent musicology.

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> The aim of science is, on the one hand, a comprehension, as *complete* as possible, of the connection between the sense experiences in their totality, and, on the other hand, the accomplishment of this aim *by the use of a minimum of primary concepts and relations* … Science concerns the totality of the primary concepts, i.e. concepts directly connected with sense experiences, and theorems connecting them. In its first stage of development science does not contain anything else. Our everyday thinking is satisfied on the whole with this level. Such a state of affairs cannot, however, satisfy a spirit which is really scientifically minded; because, the totality of concepts and relations obtained in this manner is utterly lacking in logical unity. In order to supplement this deficiency, one invents a system poorer in concepts and relations, a system retaining the primary concepts and relations of the "first layer" as logically derived concepts and relations. This new "secondary system" pays for its higher logical unity by having, as its own elementary concepts (concepts of the second layer), only those, which are no longer directly connected with complexes of sense experiences. Further striving for logical unity brings us to a tertiary system, still poorer in concepts and relations, for the deduction of the concepts and relations of the secondary (and so indirectly of the primary) layer. (Einstein 1950a:63; italics in original)

So the theory went.[34] Of course, culturally loaded terms are not as simple and clear as mathematical axioms. Such terms are still somewhat vague, but to make some sense of them on a secondary layer, it is not necessary to describe them as being too idealistically constructed or reproach them by erroneously maintaining that they contain the truth like a Platonic idea. They are bound to some degree to psychological, social, and cultural environments, but they are not to be considered solely as "terms of … [their] society and culture" as Blacking declared their applicability to "musical style[s]" (Blacking 1973:25).[35]

However, terms and notably "meta-terms" (terms of a "secondary (third, fourth, etc.) system")—as simple and clear as they ideally are—are supposed to define phe-

34. In an earlier article, Einstein himself distinguishes between different theories (in physics). *Constructive theories* and *theories of principles*, whereby the latter have as "starting point and foundation … not hypothetical constituents, but empirically observed general properties of phenomena, principles from which mathematical formulae are deduced of such a kind that they apply to every case which presents itself" (Einstein 1950b:54). Niels Bohr developed a philosophy of the complementarity principle, also meant for a wider philosophical outreach than just physics. In cultural sciences, the philosophical settings are—of course—slightly different. Terminological meta-outfits, however, are—generally speaking—comparable.

35. Talking about technical particularities of tango dancing, I sometimes experienced confusion: the "dance-movement system" as such was interpreted by some others as solely interpretable according to the view of a certain social community determining the special "meaning" of the movements. I add that such interpretations were expressed rather on the part of some sociologists and ethnologists unable to think beyond the bounds of a worldview of "cultural relativism." I would consider their attitude rather as a kind of absolutistic thinking: without being able to review a phenomenon with other bindings than "culture." On the other hand I am aware that an isolated technical description of tango dance cannot give a better picture of the cultural, social, psychological, or emotional implications of tango as a phenomenon interwoven in "ways of life" (Pelinski 2008; Torp 2010). The applied methods depend on the questions and aspects a researcher is focusing on.

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nomena more or less unequivocally. They are not arbitrarily expansible. Whether or not one is willing to concede "sound-enhanced forms of behaviour" replacing the term "music" for the purpose of broadening the horizons of ethnomusicology—as Sorce Keller proposed—may be an open question. But one could hardly maintain at the same time the incomparability of world "musics" for being culturally too different from one another. In my opinion, the term "music" as well as the term "dance" seems to function sufficiently for our purposes. My questioning rather concerns "layers" of terms as described above. Is "sound" the best and only term to deduce music, or could it also be (and perhaps even better) "movement"?

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