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Revitalizing the FMSD – Spoken Language Is Not Enough

(where FMSD = Folk Music, Singing & Dancing)

Taivo Lints, Estonia

<u>Abstract:</u> The paper draws attention to the decline of folk music (defined as all noncommercial music) in modern societies and suggests, based on the positive effects of active participation in musical behavior, to reverse this trend. It points out some causes of the decline and a few current inhibitors of FMSD, and then proposes some countermeasures.

Introduction

Transition from traditional to modern society has led to the decline of folk music (including singing) and folk dance. It is especially true for the traditional folk music, but also true for the folk music in a broader definition: all noncommercial music performed mostly by ordinary people (as opposed to expert musicians).

Although the decline of folk music is remarkable, the causes behind it haven't gone anywhere. Singing and music are strongly emotional ways to express yourself, complementary to the usual spoken language, and people still need them. Passive listening of (popular) music usually doesn't satisfy that need. While dancing does offer a possibility of participation, it is often not enough. The same goes for occasional solitary singing attempts in private places like under shower or in a car. So the folk music keeps resurfacing here and there in different ways, e.g. noncommercial part of hip-hop culture (rapping, block parties with MC battles, etc.), karaoke (which, although often based on commercial pop songs, is performed for noncommercial purposes) and the revival of traditional folk music in newly independent countries. Still, not many folk music phenomena are able to cross the threshold created by numerous inhibitors present in modern societies.

This paper tries to (empirically) analyze the decline and occasional resurfacing of folk music and also to propose some ways of revitalizing the folk music in a larger scale (aforementioned resurfacing phenomena don't cover very large population groups and often not all needs even in covered groups). That should have positive effects on mental and physical health of societies. To keep the size of the paper in reasonable limits, it concentrates on folk *music*. However, the role of dance must not be underestimated, as it is deeply intertwined with listening to and making music and often greatly amplifies their mental and physical effects.

A few warnings should be kept in mind while reading this paper. First, it is written for rising questions and calling for future work, *not* for giving any thorough answers. Secondly, I do *not* have much folk music or psychology background and therefore some parts of the paper might be easily questioned or rejected by people with more expertise. Thirdly, it is more an essay than a scientific paper (hence, for example, the references to strongly nonscientific articles should *not* be considered disturbing).

Role and Effects of MSD

The habit of making and enjoying music, as well as singing and dancing, is common all over the world. There is definitely a huge number of different genres, styles and variations of MSD, but some underlying causes must be similar everywhere. MSD's role as a "tool" for expressing emotions seems to be one of these important aspects. Consider the following example.

There is a written text, which contains some information ("information" should probably be defined here using common sense, not any strict mathematical theory). If the text were read out loud by somebody in a monotonous dull voice, then we would get pretty much the same amount of info that was in the written text. However, the reader can add something to this information by varying the rhythm of reading and by using intonation. Even more can be added, or the previous additions can be amplified, when the reader starts using different gestures in connection with the text. The additions have apparently something to do with emotions, and the direction from dull monotonous voice to fully varied one with lively gestures is the direction from "pure" language towards singing and dancing (also note the word "dull" often used to describe the *emotional* characteristics of monotonicity). To keep playing with this example, we could change the information content of the text to zero by, for example, randomly shuffling the letters (remember to use the "common sense definition" of information!). However, all the additions by the reader should remain the same. Then, more or less surprisingly, we would still get quite a lot of information about the emotions added by the reader to the initial text. Similar situation would occur if the text were in a

foreign language – we wouldn't understand a single word, but the emotions would most probably be delivered quite clearly (although some loss might occur in case of very different cultural backgrounds).

Noticing the greater universality of MSD compared to pure speaking (or the complementarity of MSD to speaking), is just a step further from the given example of emotional reciting. However, *understanding* the reasons behind it is an extremely difficult task. The question about why music has so huge influence on humans (and to some extent on other

Role and effects of MSD

- Expressing emotions
- Social bonding
- Boosting self-esteem, confidence, socializing ability
- Mental and physical relaxing

animals) has been puzzling people for ages, creating all kinds of theories and beliefs (such as the music being the language of Gods). Nowadays it is being researched in different disciplines like psychology, musicology, evolutionary biology, anthropology, etc. Attempts to draw these various fields together have even created a new interdisciplinary field called biomusicology. However, there is still a long way to go before getting any really trustable answers about the origins of music and its mechanisms of influence on us. Nevertheless, although many ideas and theories are highly speculative, I will still point out some of them to provoke your thinking.

In an essay "Art as the Clanking of Chains, a Phenomenon of Imprisonment?" [1] an Estonian computer scientist Tanel Tammet compares the human society with a big animal, human individuals being the equivalent of cells of the organism. Both – cells and individuals – are, among other things, trying to replicate desperately, but are restricted by the big

system and forced to fulfill specific functions necessary for the system as a whole. In society the control mechanisms are, for example, the praise and respect from other people, causing the individual to feel intensive pleasure; or blame, humiliation and offence that can be as tormenting as physical pain (the latter being one of the control mechanisms in biological organisms). And if emotions are essential for holding together a society, then maybe the phenomenon of art, which has everything to do with emotions, can be explained with these mechanisms? Tanel Tammet discusses:

Probably the most universal and influential for humans is music and the art of acting. Music is perceived by humans – inevitably – with the same outer and inner mechanisms as the speech and voice tones of fellow citizens, and naturally exactly these mechanisms are, above all, tuned to perform the function of control, i.e. to cause strong emotions and feelings that individuals can not control by themselves (on the contrary, the individuals are controlled by these). Using nuances of the tone of voice is one of the oldest ways of communication, and perceiving them is therefore "embedded" deeply in us. Dogs and other big herd animals sense the nuances of tone very sharply and quickly, those produced by fellow members of the same species and also those by humans and other animals. They definitely have certain sensibility towards music, too.

[My translation - T.L.]

In the article "A Neurobiological Role of Music in Social Bonding" [2] Walter J. Freeman discusses the problem of communication between individual brains: "It is the prior establishment of mutual understanding and trust through shared actions, during which brains create the channels, codes, agreements and protocols that precede that reciprocal mappings of information in dialogues." He then hypothesizes that "music together with dance have co-evolved biologically and culturally to serve as a technology of social bonding". While Freeman draws a lot of arguments from his work and theories on neurodynamics, the credibility of which I am definitely not able to even estimate, he also points out more general thoughts on the origins and role of music and dance, for example:

A significant discovery by our remote ancestors may have been the use of music and dance for bonding in groups larger than nuclear families. According to Roederer (1984), who also proposed the utility of music for training in language skills, for understanding the musical aspects of speech, and for signalling emotional states: "... the role of music in superstitious or sexual rites, religion, ideological proselytism, and military arousal clearly demonstrates the value of music as a means of establishing behavioral coherency in masses of people. In the distant past this would indeed have had an important survival value, as an increasingly complex human environment demanded coherent, collective actions on the part of groups of human society" [p. 356]. That accomplishment may have accompanied or even preceded the invention of fire, tools and shelter, because the maintenance, development, and transmission across generations of information about the techniques for working matter into useful forms must have required the prior existence of channels to support the social interactions. These channels form through emotional attachments, not logical debate.

As I already mentioned, the discussions and research on the origins and on the mechanisms of influence of music are far from coming to a final conclusion. However, the aspect of *social bonding* seems to have at least some importance in doing MSD. Therefore, the revitalization of FMSD in modern societies could probably lessen the problem of solitude of many individuals. It is worth noticing that being lonely and lacking friends is not only a problem of the individual, it is a problem for the whole society. As people are social animals, being lonely is often a huge burden for them and in the "best" case it leads to unhappiness, most likely decreasing also the general level of effectiveness and well-being of the society. In the worst cases unwanted solitude causes frustrated kids or adults jumping off the bridge or running amok in a school or workplace. FMSD is by no means a magic tool for solving the problem, but it is worth to be considered as one of the many possible countermeasures for excessive solitude, capable of increasing person's self-esteemconfidence and socializing ability.

In addition to the positive effects of *social interactions* facilitated by music, singing and dancing, there also seems to be a more direct influence on individual' s well-being – doing MSD often helps to relax mentally and physically, enhances cognitive skills, etc. This is well known and used in the field of music therapy, where the use of MSD varies from passive listening, through moderate involvement like playing a musical instrument, to the other extreme of complete mental and physical engagement in the procedure as described, for example, by a newspaper reporter in The Observer [3]:

I came here seeking a brief escape from the stresses and strains of everyday modern life. But right now my instinctive stress flight response is in full throttle and urging me to sprint for the door, run like hell, anything rather than stand up and perform spontaneous singing and dancing in front of a bunch of complete strangers.

But there is no graceful way out. And something about the trance-like beat of the African drums, the unearthly hum of the harmonium, combined with the soothing candle-lit glow of the room and – perhaps most of all – the serene encouragement of our teacher compels me to get up and twirl, stomp, groan and yell like the best of them.

By the end of the two-hour session, it feels safe, normal and even cathartic to jump around and sing out in a way most of us have not done since music and movement classes in primary school.

This is natural voice therapy. The weekly workshops in north London – and another in southwest London – are meant to release hidden emotions and anxieties, and promote relaxation and mental healing through singing.

The Decline of Folk Music

According to Wikipedia [4], the decline of folk music in modern societies can be roughly divided into three stages:

Stage I: Urban influence

The traditional folk songs were influenced by urban poets and composers, whose works spread quickly (e.g. with the help of printing). However, it didn't exactly destroy the folk traditions, but rather enriched them.

Stage II: Replacement of folk music by popular music

Popular music was born when the development of technology together with the development of capitalist economic system allowed music to be packaged and distributed for the purpose of earning a profit. This immensely intensified the urban influence on folk music and the traditions started to vanish. In addition, the Industrial Revolution led to great changes in lifestyle for many people (e.g. migration from agrarian to industrial communities), which most probably helped to cut the emotional bonds to old folk music and also changed the structures and dynamics of communities to being less facilitative towards doing FMSD.

Stage III: Loss of musical ability in the community

With the ever-increasing success of popular music more and more people became passive listeners instead of singing and making music themselves. It is likely that the widespread exposure in recordings and broadcasting to the singing of skilled experts makes untrained people feeling uncomfortable to sing. Another problem is poor singing practice in childhood compared to traditional societies, where folk music is part of everyday life. But as the experiences during the first years of life are extremely important for child's development, the lack of MSD experience in this age may well inhibit practicing MSD in older age.

Although folk music in general has undergone a drastic decline, the underlying causes of singing (e.g. people's need to express emotions, which is not satisfied by spoken language only) remain and have caused both occasional revival of traditional folk music in some areas and also some new types of folk music to appear. Traditional folk music often gets an increase of attention in groups of people who are trying to boost their feeling of independence (e.g. in countries under, or freed from, occupation) and/or trying to find their roots. The new folk music phenomena are for example the non-commercial part of hip-hop culture (rap, block parties with MC battles, etc.) and karaoke. Actually, according to Wikipedia [5], the hip-hop music is related to the griots (traveling singers and poets) in West Africa. However, true hip-hop arose during 1970's and one of the reasons behind its success as a folk music phenomenon is rap's relatively modest requirements for vocal capabilities and for equipment. The requirements for karaoke singers are quite low as well and creating places where ordinary people are allowed to perform without getting negative feedback is apparently a brilliant idea following the basics of economics: find an unsatisfied need and make money on it (well, as a side note: the modern marketing has moved on to the "create a need and make money on it" tactics...).

Inhibitors and Suppressors of FMSD

The previous section gave a general outline of the decline of folk music, but it would be interesting and useful to find out more details about what exactly keeps most of the people away from practicing FMSD in modern societies. For sure, there is a huge number of inhibitors of various degrees and the interactions between them can make the analysis way too complicated. However, we need something to start with, and the following is a list of some suppressors that will pop into mind even without doing any thorough research.

<u>Social norms</u> – spontaneous singing is not widely accepted. And if a behavior is frown upon by the majority of a community, then it obviously will not flourish. An example of a place where social norms do allow ordinary people to sing is the karaoke bar mentioned above. Certain types of songs are also accepted in other places like churches and sports events.

<u>High "threshold of embarrassment"</u> – people feel embarrassed to sing in public. It is caused both by social norms and by person's inner level of ihtrovercy", and affected by the vocal capabilities.

<u>Low vocal / musical capabilities</u> – the less people are actively participating in singing and making music, the less they are able to do it, which causes them to participate even less, etc. The decrease of capabilities can continue through generations, as noted in the previous section.

Not knowing enough suitable songs, i.e. songs that match the capabilities (folk songs). Trying to perform a complicated song heard from radio may end up with a disappointment and lower the probability of practicing further.

<u>Lack of equipment "hanging around"</u> – if there is no musical equipment available, especially in childhood, then people obviously can't practice playing.

<u>Not being aware of the positive effects of MSD</u>, for example its capabilities to relax performers mentally and physically (mostly when performing in a non-demanding environment, not on the stage like professionals), or to enhance cognitive skills.

<u>So many other things to do nowadays</u> – as the society develops and technology advances, there are more and more possibilities to fill your days with interesting activities without actively participating in any FMSD activity.

Decreasing the Effects of Inhibitors

First of all, it should be noted that although this paper is about "revitalizing the FMSD", it really should be thought of as being about *decreasing the effects of inhibitors* of FMSD, and NOT as being about "how to force people to sing and dance". It is my current belief that in many modern societies there is a remarkable unsatisfied need for the tools allowing / facilitating better communication of emotions and lessening the amount of loneliness. More FMSD is a "natural" solution and removing the inhibitors should be enough for the "revitalization" of it. One possible explanation for the little work in this direction is that socially more active people have the aforementioned need more satisfied and therefore don't notice

the problem, while socially less active people are probably also less capable of carrying out the task of changing social norms at their will.

So how can one guide an extremely complex system like society towards desired direction? A society seems to be way too complex for *controlling* it successfully, or for controlling it at all, and the attempts of total control have usually (luckily?) led to the failure of the system. However, it seems reasonable to try introducing or facilitating good practices. The outcome in the long perspective is somewhat unpredictable, though, and what are the "good" practices is always a subjective decision.

The following list contains examples of possible methods and objects that might be more or less effective against the suppressors of FMSD.

<u>Psychoactive substances (alcohol and other drugs)</u>. These are widely used, but often have negative side effects, either damaging consumer's health or causing dangerous behavior (e.g. lowering reaction time or increasing aggressiveness). Even if small amounts of some drugs might be considered relatively safe, achieving the same positive effects *without* drugs would be definitely better.

<u>Popularizing FMSD</u> by influencing people with different "marketing" tools (the word "marketing" is in quotes to emphasize that we are not exactly trying to *sell* something, although some methods may also include actual trading, but rather the non-commercial aspect should be primary). "Popularizing" basically means changing the general attitude / social norms towards being positive about the behavior and all the following points in this list can be considered as examples of such "marketing" tools.

Spreading information about the positive effects of FMSD. Information is a very powerful tool, especially in the Information Society. When the positive effects of FMSD become common knowledge, the solutions are likely to emerge here and there without any further work of the "marketer". However, such shifts in society's knowledge base are slow and need patience during the advocacy process. (Side note: another advocacy process, which is even more important for the development of our society, is making the importance of the first years of life a common knowledge. Then hopefully most of the parents would spend much more time with their kids and that time would be spent much more effectively (i.e. facilitating children's development, instead of treating them as relatively dumb beings with whom babbling is good enough a method of communication). Luckily, this information spreading process has already begun, see for example the activities by the I Am Your Child Foundation [6] or by UNESCO [7].).

<u>FMSD gatherings and workshops</u> for giving people a possibility to get new experiences, to learn easy enough songs and dances, to get acquainted with and try out different musical instruments. These could take place in connection / during other events like festivals, markets or sports events when people are already in the mood of doing something interesting. When organized wisely, such workshops can be very fun and draw together more and more people through the spreading of positive info by previous satisfied participants.



The final banquet of CSSS04 in Santa Fe Institute. Audience enjoying the talent show (on the left). Derek Robinson (playing guitar on the right photo) successfully managed to get the audience singing along, even though the song was new for most of us and the "threshold of embarrassment" to be crossed was pretty high due to "explicit lyrics". *Photos by Sara Metcalf*.

<u>Having more "sanctioned spaces" for singing</u>, where ordinary people don't feel intimidated to sing. Examples of such places currently available are karaoke bars, churches (religious songs only) and sports events (mostly songs expressing the support for one or another sports team).

Having more musical equipment "hanging around" for people to be able to just walk by and try them out. Having such an environment would be especially beneficial for children, as they have a higher level of natural curiosity for everything new and more capability to learn. Setting up special studios with free entrance, but without requirements to start learning an instrument following a strict curriculum, could be the first step towards creating these possibilities, but money is obviously a concern in such projects (i.e. the problem of financing it).

More games that include MSD. Games allow breaking of social norms (e.g. think about the "truth or dare" type of games) and could be engineered to give the experience and practice of singing and dancing, which in turn would make people more confident to perform MSD also in other situations.

MSD gadgets and party toys that would facilitate learning or doing MSD. An example of such a gadget would be a cheap and fun voice tuner for ordinary people, which could help in practicing notes and simpler melodies by playing them out loud (and afterwards possibly verifying the correctness of the repetition by user). While there already exists computer software for tuning your voice, a small and portable gadget would be much more appealing. However, the need for a voice tuner would occur in larger scales only after the FMSD gets more popular. Nevertheless, there are always possibilities to create successful gadgets and party toys. A bright person with good ideas and a capability to realize them could even make piles of money on creating such items (especially if there really exists a remarkable unsatisfied need for more FMSD).

Dangers to Avoid

While the idea of making our society a better place is definitely appealing, there are always possibilities to make mistakes or even fail completely. Although it is nearly impossible to estimate the long-term effects of any actions on society, it at least *seems* to be sensible to try to avoid several potential problems:

<u>Creating only fads</u> – fast popularity may be followed by unpopularity. This can happen easily when only commercial interests are considered, for example when the goal is to sell a lot of MSD gadgets quickly, instead of revitalizing the FMSD in a moderate pace.

Aggressive marketing, which can easily have the opposite effect: scaring people away.

<u>Social overbonding</u> (possibly facilitated by the FMSD), which may cause aggression towards outsiders.

<u>High noise levels</u> due to the increase in singing and making music. Noise pollution is already a remarkable health problem in modern societies.

These were obviously only a few examples of possible problems that should be thought of before jumping into action. However, the excessive analysis of difficulties and a fear of failure are actually also dangers, which can lead to inactivity or complete abandonment of the initial goal.

Modeling

The research on the origins and evolution of music and dance, as well as on their influence on people, is a vast interdisciplinary field and therefore the range of phenomena to model is nearly infinite: from the evolution of music during the whole history of life on Earth to the rapid processes in the millisecond scale of our sound sensing capabilities, from the neurodynamics of an individual to the global scale of human interactions.

An example of a relevant model is an agent model of the "threshold of embarrassment" (or of thresholds in general). Agents represent persons, or communities. Every agent has a more or less random maximum tolerable level of embarrassment. A behavior under study (be it singing or whatever) has a certain level of embarrassment associated with doing it. If the behavior is tolerable for an agent, it will sometimes perform it. This (either doing it or just being tolerant) will change the maximum tolerable level of embarrassment of agents, etc. As a result the behavior may or may not spread all over the agent world. There have already been uses of the concept of "embarrassment threshold" in an agent model, see for example the work on the dynamics of applause in an audience [8].

One of the interesting processes to study here is the dynamics of the threshold of embarrassment. What exactly causes it to rise and fall in real world? How exactly does it change? What happens if two persons with the same threshold are "dropped" into a low tolerance society, one of them being naturally courageous, the other having the threshold raised by living for a while in a more tolerant society? Most probably some of these questions have already been dealt with to some degree, e.g. by psychologists, but there is still a lot to discover.

Conclusion

Transition from traditional to modern society has led to the decline of folk music – the passive listening of music is overwhelming and active participation is relatively rare. As a result many people seem to be lacking the tools for fully expressing their emotions and the general level of loneliness is also quite high. After looking at the inhibitors of FMSD it is clear that their suppressing force can be reduced, which is likely to slow down or reverse the process of decline of folk music. There are also potential dangers associated with the revitalization of the FMSD, which should be taken into consideration.

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Notes

Feel free to express your thoughts and opinions about this essay. You can find my current e-mail address on the web page http://www.dcc.ttu.ee/taivo/. There is also an electronic version of this paper available for downloading.

References

All referred Internet materials were used as they were in June-July 2004 (i.e. changes are likely to occur to some materials, especially in Wikipedia).

- Tanel Tammet, "Kunst kui ahelakõlin, vangistuse fenomen?". Eesti Ekspress, April 8, 2004. http://www.ekspress.ee/viewdoc/59E084A3EE39EBEFC2256E700035C21B
- Walter J. Freeman, "A neurobiological role of music in social bonding".
 Published as Chapter 22 in "The Origins of Music", edited by N. Wallin, B. Merkur, and S. Brown, pp. 411-424. Cambridge MA: MIT Press, 2000. http://sulcus.berkeley.edu/wjf/CG.Music.in.Social.Bonding.pdf
- 3. "Good vibrations". The Observer, February 11, 2001. http://observer.guardian.co.uk/life/story/0,6903,436378,00.html
- 4. "Folk music", Wikipedia. http://en.wikipedia.org/wiki/Folk music
- 5. "Hip hop", Wikipedia. http://en.wikipedia.org/wiki/Hip-hop
- 6. I Am Your Child Foundation. http://www.iamyourchild.org
- 7. UNESCO's Early Childhood and Family Education Activities.

 These pages were available from www.unesco.org, choosing "Education" and then "Early Childhood & Family". Unfortunately, the location of these pages seems to change occasionally. However, using a web search engine with keywords like "UNESCO" and "early childhood" will give a lot of relevant information.
- 8. Gary Lupyan, Ilya Rifkin, "Dynamics of Applause: Modeling Group Phenomena Through Agent Interaction". An abstract from the Proceedings of the 25th Annual Meeting of the Cognitive Science Society, 2003.
 - http://www.ccm.ua.edu/pdfs/310.pdf