Sound-Prayer-Meditation Dynamics in Health and Healing

Benjamin D. Koen

Abstract—**Over the last two decades, research in anthropology, music, and medicine has dramatically increased concerning sound and healing, prayer and healing, or meditation and healing. Yet, the connection among sound, prayer, and meditation in healing has been largely avoided. To approach this problem, this paper presents the sound-prayer-meditation dynamics model as a culturally sensitive and flexible framework for conducting and analyzing research.**

Index Terms— **Cognitive flexibility, entrainment, healing, medical anthropology, meditation, prayer, sound.**

I. Introduction

The expression and experience of both the physical and spiritual realms in cultural and clinical contexts of health and healing has been described as a "sacred clinical reality...a complex of interrelated features including the beliefs, expectations, norms, behavior, and communicative transactions associated with sickness, health care seeking, practitioner-patient relationships, therapeutic activities, and evaluation of outcomes" [1]. Healing systems or practices thusly oriented "emphasize sacred reality, illness orientation (meaning that they take into account the patient's account of the problem as their central concern), symbolic intervention, interrogative structure, family centered locus of control...and substantial expectation of change, even cure" [2] Throughout the ages and across diverse cultures of the world, people have utilized specialized sound, prayer and meditation as a medical intervention to heal the body, mind, emotions, and spirit. Overwhelmingly, sound's power to effect change is inextricably interwoven with cultural and religious beliefs and practices—the foremost practice being prayer [3], [4]. Although the confluence of sound or music *and* prayer-meditation for healing is a wide spread cultural phenomenon, research across disciplines in the social and health sciences has largely ignored this relationship, preferring instead to look at either sound *or* prayer in healing.

II. Sound and Prayer-Meditation in Healing

The new model presented below emphasizes those aspects that have not been considered in ethnographic or health science literature, namely, the dynamic relationships between sound *and* prayer or meditation *in* healing, as well as their combined or unified expression as a unique phenomenon. Specialized sound or music [5] is virtually always at the center of diverse practices of healing where beliefs in the supernatural or spiritual dimension frame the contexts where healing occurs. While prayer is often mentioned in the ethnographic research, its role and relationship to sound is not critically examined. Moreover, in biomedical research concerning intercessory prayer and the mind-body dynamic, other issues arise. That research grapples with the questions of spirituality and religiosity without unpacking the loaded meanings in cultural practices or belief systems and their roles in healing. The general approach taken in biomedical research is to implement a practice of prayer in a controlled, clinical setting and compare outcomes between test and control groups [6], [7], [8], [9]. However, biomedical research has yet to critically consider the important factors of sound, chanting, singing, intoning, and culture in their experimental designs and case studies. For clinical research that concerns prayer, spirituality or religiosity, it is critical to consider the role of sound and culture, inasmuch as culture is the ever-present, multifaceted frame that gives meaning to sound and music and is key in creating or limiting efficacy.

For instance, in diverse religious contexts, sound is almost always an essential part of prayer, devotion, and worship, which is culturally determined and expressed. Specialized sound, intoning, singing, chanting, and music are often a form of prayer, or for prayer to be efficacious, it often must be offered in a sounded or musical form. The role of sound or music can entirely change the experience and potential power of prayer. In some cases, the prayer and its sounded or musical form is one. Hence, when studying the effects of sound or prayer, both components must be considered to discover what makes a practice efficacious. Moreover, one component might make a specialized sound or prayer intervention efficacious or powerless, depending on the individual cultural associations and beliefs. For example, a healing prayer might be rendered powerless if the sounded or musical form is not suited to an individual's cultural aesthetics; or sound and music could be powerless if they are used in a context devoid of the spiritual associations required for an individual to be affected by sound's potential healing power.

Fig. 1 shows how ethnographic and scientific research has conceptually framed the components of sound and prayer. Note that although meditation can stand alone, for the purposes of this discussion, the model views meditation as a practice linked to and interwoven with prayer.

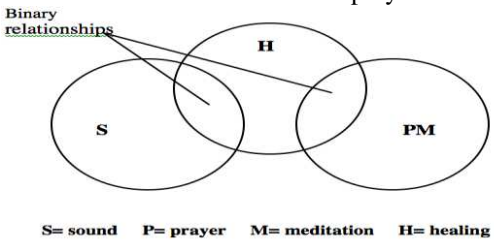

Fig. 1. Research model with separate domains of sound and prayer.

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The figure shows research in which sound and prayer are viewed as distinct, unrelated components in healing.

III. Sound-Prayer-Meditation Dynamics Model

To approach this problem holistically, I propose sound-prayer-meditation dynamics (see figure 2), as a model to conceptualize the practices of sound and prayer-meditation in diverse contexts of healing, daily human experience, as well as ethnographic and experimental research. Sound-prayer-meditation dynamics is designed in light of extant ethnographic and health science research, maintaining binary relationships between parameters and adding two new parameters that explore the confluence of sound and prayer. Hence, the model considers both the individual and integrated uses of sound and prayer. The model comprises four parameters: sound alone, prayer-meditation alone, sound and prayer-meditation combined, and unified sound-prayer-meditation. The model is versatile and can be applied in a strict or more open sense. Typically, experimental studies will utilize a strict application, and ethnographic studies a more open one. The sound-prayer-meditation dynamics model is designed to explore the question of efficacy and to investigate the extent to which the effect of the four parameters is culture-dependent or culture-transcendent.

This model represents the confluence of sound and prayer in the context of healing, daily life experience, and ethnographic and experimental research. Each circle represents an individual parameter. Binary relationships can be seen at the intersection between each pairing of two parameters. The combination and unification of sound and prayer seen in the center is potentially the most efficacious parameter to effect healing.

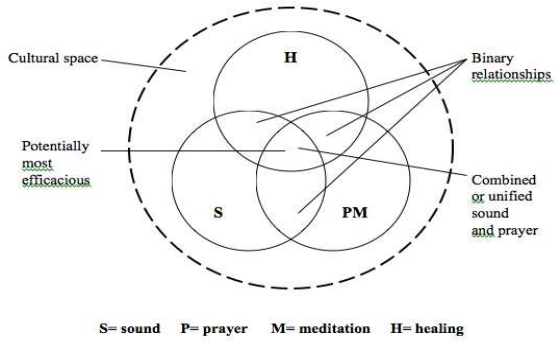

Fig. 2. Sound-prayer-meditation dynamics model

For anthropological and ethnomusicological field research, the model can serve as a conceptual frame shedding light on the dynamic relationships between sound and prayer-meditation in diverse cultural contexts of healing. This accommodates a more holistic view of any given healing context or sacred clinical reality where these components are present. The model also facilitates cross-cultural comparison by establishing common ground between research projects. As a flexible framework, the model allows for a diversity of cultural expressions, while conceptually approaching the problem with both culture specific and universal potentials in mind. In experimental research, the model can be used as a frame for testing the efficacy of the various parameters, which gives insight into causal factors of healing. For instance, in measuring how sound and/or prayer can modulate indices of psychosocial and physiological distress, the model reveals which parameter is efficacious or deleterious for each participant, and how and why this could change over time, or from day to day.

IV. Cognitive Flexibility and Entrainment

The practice of specialized sound, prayer, and meditation facilitates the experience of cognitive flexibility, which is a core capacity and key component to experience healing [10]. In addition to cognitive flexibility being a capacity to adapt learning and skill from one domain of experience to another, in my research into healing it also represents an in between state of potentiality from which healing can emerge. That is to say, from a present state characterized by illness or dis-ease, the cognitive flexible state is that state of being wherein a person has detached from the present ill-structured state and is in a state of potentiality, which, when further animated by sound, music, or prayer-meditation can be propelled into a process of healing and ultimately into a state of health. For example, in one study I conducted among a diverse group of young adults (N=100) that tested the effectiveness of the parameters of the model to facilitate cognitive flexibility, all participants experienced salutary effects of their self-selected or self-created sound, prayer, and meditation. Notably, the beneficial effects were mediated by individual cultural orientations and experiences. So, while one participant in the study would enlist all the parameters in a process that moved from silence, to recited prayer, to silent meditation, to intoning special power-laden words, to improvised chants using vocables (words with non-lexical meaning), another participant would listen passively to recorded sounds of nature and prayers from a specific religious tradition, while others would use long vocal tones that functioned as personal prayer to create a state of internal psychological peace and physical relaxation, still others would incorporate their practice into their daily exercise routine—indeed, each participant's practice and experience was distinct. Although there was a great degree of diversity among participants, which in turn lead to a high degree of diversity in the kinds of sounds, music, prayers, and meditations employed by participants, at the level of the parameters, there was a great degree of overlap and unity with respect to how the different parameters were efficacious. That is, all participants experienced the above-mentioned cognitive flexible state of potentiality, from which they moved into a more healthy state, some experiencing significant healing transformations.

In addition, the shared aspects of participants' experiences can be explained by one guiding principle that emerged through the research process, namely, the parameter and the degree of energy with which it is engaged should match the present state of energy of the participant. Hence, if a participant was in a low energy state, perhaps upon waking in the morning or close to sleeping at night, the sound-prayer-meditation should match that energy level and slowly transform to higher levels of energy as strength builds, or decrease in energy until full sleep is attained. Similarly, if

participants were at a moderate or high level of energy upon commencing their practice, the sound-prayer-meditation should start at an equal energy level. This synchronization of energy at the outset is perhaps best explained by the principle and process of entrainment. Entrainment is a natural law that is perhaps best known by the pendulum clock experiment conducted by Dutch physicist, Christiaan Huygens in the mid 1600s. He noted that when he placed two or more pendulum clocks in close enough physical proximity to each other, the pendulums would synchronize or entrain over a brief period of time and stay unified until they were moved far enough apart. This principle, however, is not limited to the physical or mechanical domain. For instance, when a present state of attention is focused on a higher state of consciousness or health, a kind of closer proximity (albeit a non-physical proximity) is achieved and the process of unification or entrainment can follow. Participants in the present study experienced a similar dynamic of synchronization between their higher self that they had identified in their heart or mind's eye, and their present state or identity. Hence, in the emotional and spiritual domains of experience, entrainment can likewise provide a coherent conceptual frame with the explanatory power to understand both the tangible and intangible movements of energy that are part and parcel of sound and prayer-meditation.

In my current research and applied practice, the present model provides an elegant and flexible framework to engage diverse populations in cultural specific practices of sound, music, prayer, and meditation in health and healing. Moreover, the model allows for critical examination of culture-transcendent factors that give key insights into potential universals in sound, music, prayer, and meditation studies concerned with health and healing.

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Benjamin D. Koen was born in the U.S. to parents of Spanish, Greek, Seneca First Nation and Welch descent. He holds a Ph.D. in medical, cognitive, and applied ethnomusicology from The Ohio State University, Columbus Ohio (2003). He is an acclaimed musician, author, scholar, speaker, meditation trainer, and healer. He has conducted research, lectured, and performed music in over 40 countries. Currently, he is Professor of Medical Anthropology and Medical Ethnomusicology at Xiamen University in Xiamen, China, and has previously held the positions of Tenured Professor at Florida State University College of Music; Music Presenter for the Smithsonian Institution; Faculty for a federally funded HRSA grant in mind-body-spirit medicine; Editor for Medical Ethnomusicology at Oxford University Press; and Fellow of the U.S. Department of Education Foreign Language and Area Studies Program, among others. He is widely published, has appeared on numerous recordings, and is the author of the landmark books Beyond the Roof of the World: Music, Prayer, and Healing in the Pamir Mountains (New York, Oxford University Press, 2009), and The Oxford Handbook of Medical Ethnomusicology (New York, Oxford University Press, 2008). His research interests are broad and integrative in nature, approaching music, health, and healing from a holistic perspective, exploring and engaging the physical, psychological, social, emotional, and spiritual factors that comprise healthful, preventive, and curative practices in diverse cultural and clinical contexts. His current projects focus on music, the mind, and meditation in health and self-healing; improvisation; individual and social transformation; the six-healing sounds in traditional Chinese medicine; nutrition; spirituality; and cognitive-behavioral healing.

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