

Group Magic: An Inquiry into Experiences of Collective Resonance

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This document is intended to provide a brief but comprehensive summary of my doctoral dissertation research. I endeavor, in these pages, to convey the essence of the 315-page original effort for those readers who are less inclined, by virtue of time or interest, to read the academic document. Especially shortened are the review of literature and the findings sections in which, in the original, references to supporting research and many direct quotes are included. I hope, however, that the wholeness of the work has been preserved and communicated.

It is also my intent to invite the reader's personal experiences of collective resonance to come forward. If it happens that something in this writing reminds you of a time of resonance in a group, any group, and you are willing to share it, I would like to know about it. The research continues in the form of a growing collection of remembered stories, and each one that comes forward amplifies the entire field. Please contact me at the address listed on the last page of this document.

If you would like to know more about the stories referenced in this research, share your own perspectives, order a copy of the complete dissertation or additional copies of this summary, or inquire about potential funding for further research in this area, please refer to the contact page also at the end of this document.

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1 INTRODUCTION

We are at a crossroads in human evolution. We have arrived on the doorstep of the 21st century in great global disarray. Anxiety, hate, terrorism, and war are the pervasive themes of our time. We live in fear, and our dealings with one another reflect this undercurrent. We mistrust others in personal dealings, and group dialogues on important issues that affect our collective future are marked by skepticism and competition for perceived scarce resources. Our media capture and magnify it all—every unsettling detail—live and 24/7. This is dissonance: collective dissonance.

Even so, occurrences of resonance between individuals and within groups happen every day in situations in which people come together and experience intimacy and bonding, a felt sense of being in the flow or transcending, personal transformation, and sometimes the satisfaction of accomplishing extraordinary things

This is group magic, and these are the experiences that inform this study. They are extraordinary, but they are also ordinary in that they happen every day in all kinds of contexts and to people like you and me. They are difficult to describe, but we know when they have occurred. It is in the space between us, something beyond the level of intellectual exchange and felt in a different way than as a meeting of the minds. It is a meeting, but one of a different sort: it is a meeting of hearts, of souls, of energies, and memories, and although this group magic exists in the realm of physical space and time, it may reflect a dimension beyond the immediate interaction.

These experiences occur more frequently than we may know. They do not sell newspapers and therefore may go unnoticed in the course of a busy life, but they need to be brought to light and to be understood better because they serve as guideposts that point to ways of working and living together that sustain human life and spirit rather than destroy it. They are points of light that illuminate the way to a better world than the one in which we entered this century. The stories of these experiences need to be told in the voices of the individuals who have experienced them.

This study gathers and interprets experiences of collective resonance, the name I have given to the magic that is possible in group life. In it I explore the broad range of contexts in which people report experiencing this phenomenon and the many levels of connection that operate in them, including energetic, physical, intuitive, emotional, and spiritual as well as intellectual. I discovered in talking with athletes, military men, dancers, educators and students, construction workers, singers, police officers, corporate executives, weekend fishermen, and many others what the experience of collective resonance feels like, what they believe shifted their group into resonance, how significant the experience was for their life or work, and whether a similar sense recurred during the remembering and retelling of their stories.

Bringing this information to light is important, I believe, for two main reasons. First, by having access to examples of collective resonance, readers of the study may be able to recall similar encounters in their own lives, which will in turn raise awareness that it is available to us all and that its effects can be transformative. I also believe that increasing conscious recognition of felt experience actually amplifies the positive energy field around and between human beings and can affect decisions that lead to right action in the world.

Second, by understanding the components of such experiences, methods and practices can be created to help design and facilitate groups in ways that enhance the possibility of the emergence of resonance, again in service of decision-making that moves our societies forward, but also for the intrinsic satisfaction and joy that can heal the wounds already inflicted by a dissonant age.

Collective resonance is, by my definition, a felt sense of energy, rhythm, or intuitive knowing that occurs in a group of human beings and positively affects the way they interact toward a common purpose. The word resonance means “re-sound,” which indicates a flow of vibration between two things, in this case two or more people. This study focuses on this aspect of group dynamics. Greater awareness and amplification of this level of connection between people and

between groups and other, larger forces, I believe may help us find our way back to the knowledge and experience of our fundamental connections to one another and our environment and make greater progress toward our common human goals than we have been able to do using idea exchange and analytic problem-solving alone.

The word resonance has been used in many disciplines and in a variety of ways. In the following paragraphs I mention its meaning in the psychological and spiritual realms and focus on its definition in physics. A more extensive review of the literature, including related current research in the organizational arena, can be found in the complete dissertation. I want to note that there are other fields of research and practice in which the concept of resonance is central, most obviously in music, but these are not explored specifically in this research.

In the psychological realm the word resonance primarily connotes empathy and empathic connection. For example, the phrase “I resonate with that” commonly indicates an understanding or acknowledgment that the person has had a similar experience. In the spiritual realm, particularly in the Eastern traditions, resonance is central not only in terms of connection to the divine (through practices such as meditation in which a sense of unity with the universe may be experienced) but to human health and vitality because these philosophies (particularly the Indian, Chinese, and Japanese) are based on a system of energy and energy centers that affect wellness. This inquiry, although remaining open to all the connotations of the word resonance used by its participants, focuses on the physical and energetic aspects of group interaction and how they correlate with the natural laws of physics.

When human beings are in physical proximity, they interact on many levels. One is a rational/cognitive level in which ideas are exchanged primarily by way of words or gestures. The medium of exchange is largely symbolic in that whatever the person is feeling or thinking must be put into a communicable format such as language or facial or hand signals.

Another level of interaction occurs as an energetic connection between two or more individuals. Their bodies are also sending messages to one another through the medium between them—usually air—because each is vibrating constantly and affecting the electrostatic field around them. This vibration occurs because every cell (actually every atom and molecule) in the human body vibrates constantly (Childre & Martin, 1999; Cooper & Sawaf, 1997; Gerber, 2001; Hunt, 1996; Judith, 2001; Leonard, 1978; Lynch, 2000; Pearsall, 1998), and when they are organized into parts of the human body—organs, glands, muscles, and so on—they send rhythmic messages into the surrounding environment as vibrations. Some of these vibrations are audible and many are not, but all are perceptible to other living systems near the person in the form of sound wave interchanges. The human heart, in particular, sends audible vibrations into the surrounding environment but also affects the other vibrating elements within the body, acting as a kind of organizer of the frequencies of the vibrations of the other organs, tissues, and the cells that comprise them.

Each sound wave forms based on a combination of many frequencies. Some of the frequencies are multiples (harmonics) of one fundamental frequency particular to that object (e.g., a human body). Resonance is highest when the fundamental frequency is “heard” but even multiples of that fundamental frequency (harmonics) can create resonance, though the effect will be smaller.

It is the pattern of vibrations that, in the human being, feels most natural, hence, comfortable (and many times, energizing) and might affect the way in which the person ideally operates (by amplification of that state). Within the human system, such a state might be felt as a sense of harmony or being “in tune.” When waves are in tune, or have a fixed-phase relationship, they are “coherent” and build on each other. Meditative states are examples of this kind of resonance within the body and have been advanced as healing practices for cardiac and other bodily dysfunctions.

Resonance is also the phenomenon of the transmission of vibrations from one vibrating body to another in the absence of any contact with each other. This process can be understood as the impact of one vibration on another. Sympathetic vibration and forced resonance are terms for the phenomenon of resonance when the vibration of one body is altered by the vibration of

something external to it (Nagata, 2002). In other words, bodies vibrating in close proximity affect one another in potentially different ways. One way is that the stronger of the vibrations overpowers, in a sense, the weaker signal, as in the case of the heart's vibration regulating the other parts of the human system. Another is a situation in which the natural resonance of two or more vibrating bodies "lock into phase" or entrain with one another to produce a kind of harmony or coherence between them that not only feels natural but actually amplifies their connection. In physics, two sound waves of approximately the same frequency (or harmonic of the other's frequency) will eventually entrain, or come together, and cause an increase in the amplitude of the wave. The energy transfer within the resulting system is considered optimal because the energy that comes to and from each oscillating (vibrating) body is natural to it. Itzhak Bentov (1988) called this a resonant system.

It is worthwhile to mention, at this point, the concepts of consonance and dissonance, which are related to but not the same as resonance. Consonance means "harmony; accord or agreement, harmony of sounds; a simultaneous combination of tones conventionally accepted as being in a state of repose" (Nichols, 2001, p. 435). Dissonance, defined by the same dictionary, is "disharmony; inharmonious or harsh sound, discord, cacophony; simultaneous combination of tones conventionally accepted as being in a state of unrest and needing completion; unresolved; discordant chord or interval" (p. 570). Unlike consonance, in which two or more frequencies combine to create harmony, resonance occurs when the wavelengths are exactly the same, that is, when two wavelengths of similar frequencies come together as one. I think it is interesting to note that in physics, dissonant waves are regarded as incomplete, unresolved, and seeking completion (or repose), whereas resonant waves are defined as having attained a state of rest.

Applying the laws of physics to human interactions, one might wonder what are the effects of two or more individuals interacting with one another when the resulting "system" is resonant. What, exactly, does this resonance feel like to the individual human beings involved? How is it experienced and where (in the body)? What is the "product" of such gatherings? In what situations do they occur? What is meant by resonance when it is applied to human energy in group situations, especially natural resonance? These are some of the questions that arose for me as I read about the physical properties of resonance. They prompted this inquiry on the phenomenon I call collective resonance.

As mentioned earlier, my own definition of collective resonance is a felt sense of energy, rhythm, or intuitive knowing occurring in a group of human beings that positively influences the way they interact toward a common purpose. I believe that experiences of collective resonance are common but are not often brought to conscious (cognitive) awareness. They are felt experiences of synchronous connection, as in the physical sense, that affect the energy exchange in a situation and influence the outcome of whatever purpose the group is gathered to achieve. I believe that they are felt in a very powerful way although, again, they may go unnoticed in the course of a daily routine that is dominated by intellectual interchange and unrelenting activity. References are made regularly to awareness of this energetic layer of interchange in random or offhanded remarks, usually in other contexts, and these returned to me as I explored more deeply the stories within which these phenomena are reported to have occurred.

1.1 Approach

This study highlights collective episodes of resonance. This is because it is embedded in the domain of organizational systems, a domain in which I, as author, am a participant as a consultant and researcher. My interest is in resonance as a group phenomenon and how a deeper acknowledgment and understanding of it can inform the way that we as human beings can live and work together for a greater good. I do, however, expand the traditional definition of "organization" in this work to include any kind of group that interacts together toward a common purpose. Some group experiences described herein were work groups in the traditional organization development sense whereas others were not. Examples are groups whose purpose was to have a good workout, reach a particular meditative state, win a game, learn about a topic, give a performance, or enjoy a leisure activity together. I intentionally chose this design because my

purpose was to explore a little-known domain. I think it is vital and ultimately more beneficial to the organizational systems field of inquiry and practice, where I believe it will have significant application, to stay as open as possible to reported characteristics and value of experience in many different venues. It is the essential constructs of experiences of collective resonance that I wished to illuminate, and I found commonalities in the way such energetic exchanges are described that transcend the type of situation in which they occur. In this way the study also models a holistic approach to the topic and can later be evaluated for its service to the organizational world.

Although there has been inquiry in the organizational learning arena into deeper levels of human connection in group situations in the works of Bohm (1980, 1985), Isaacs (1999), Senge (1990), and others that acknowledge a “felt presence” in groups (a kind of implicate order that resides in the collective and informs it), they stop at the level of intra- and interpersonal interactions (how to do and be in groups so that maximal learning can take place for individual and group effectiveness), in my opinion. Briskin et al.’s (2001) study explored the field of collective intelligence and set the stage for this one in that it uncovered experiences of rhythm, sound, and movement in felt experiences in groups. This suggests that there is a physical level that coexists with rational or psychological exchange and understanding. Although a pilot study that I conducted on this phenomenon in a single group experience from multiple perspectives was initially titled *An Inquiry Into a Phenomenon of Collective Intelligence*, I renamed it *An Inquiry Into a Phenomenon of Collective Resonance* to highlight the physical and energetic aspects of such experiences, not the intellectual ones. The current study, likewise, attends to these elements of experience. My approach, then, highlights both the collective and the resonant aspects of collective resonance.

1.2 Scope

Thirty-two contexts in which collective resonance was reported to have occurred are included in this study. Although I interviewed 34 individuals, three described one particular situation and were interviewed together. In selecting the contexts, I emphasized maximum variety to discover whether there were common themes and to encourage readers of the dissertation from all walks of life to relate to the experiences. It was important to me that the results not be perceived as representing a particular group of people or a certain mindset, background, or other categories of membership.

The group situations included three or more individuals gathered together for a specific purpose. The study excludes groups that were formed for illegal or violent purposes, such as street gangs. Although resonance can occur between two individuals, this inquiry was directed to experiences of group resonance because it lies in the domain of organizational systems, as mentioned earlier. The findings are intended to help guide those working with or living within group situations.

1.3 Collective Resonance Contexts

Following are the 32 collective resonance contexts and a brief identification of the person interviewed from that group:

1. A construction crew working together over a period of years building homes in rural Maine. The interview was with one of the crew members.
2. The volunteer effort based at St. Paul’s Chapel in lower Manhattan that was organized to support the relief workers searching for victims and cleaning up in the aftermath of the September 11, 2001 disaster at the World Trade Center. This project lasted for nine months. The interview was with one of the coordinators of that effort.
3. A strategic planning retreat in which two recently merged social service agencies with different organizational cultures met to create a vision of their future. The interview was with the human resources director of the new, merged, agency.

4. A United States Air Force unit stationed in the Philippines for many months evacuating military personnel and their families and guarding the abandoned base after a volcano eruption. The interview was with a sergeant in the unit.
5. A Friends meeting for worship in the Quaker tradition. The interview was with a church member who is also a consultant, author, and facilitator of corporate management groups. This person spoke of collective resonance in both contexts.
6. A small soup shop where employees work together efficiently to serve customers at very busy times (e.g., lunch time). The interview was with the manager of the shop.
7. A family context in which one member, a young woman, was dying of breast cancer, leaving two children, numerous siblings, parents, and extended family. The woman, desiring a conscious dying process, asked her friend, my interviewee, to be present at family gatherings and situations surrounding the various phases in her three-year ordeal. She described several of these gatherings as collective resonance.
8. The campaign team of a United States senator's run for the presidency. The interview was with the manager of the campaign team.
9. A dance class. The interview was with a new member of the class.
10. A police officer in an arrest situation at gunpoint with seven suspects. The interview was with the officer.
11. A high school English class. The interview was with the teacher.
12. A five-year effort to establish a new children's museum from conception to opening of its doors. The interview was with three core members of the founding team.
13. A deep-sea fishing expedition with six men. The interview was with one of them.
14. Women's groups gathered for different purposes related to women's issues. The interview was with the facilitator of these groups.
15. A community-building effort between blacks and whites in rural Mississippi in the mid-1970s. The interview was with a member of the consultation team that conducted the project.
16. A group of craniosacral therapists learning technique involving the energy of dolphins in the waters of the Caribbean. The interview was with a cofacilitator of the training.
17. The offensive line of a football team. The interview was with a lineman.
18. A group of international political and business leaders gathered to discuss peace initiatives throughout the world and their lack of success. The interview was with a cofacilitator of this group.
19. An Alcoholics Anonymous meeting. The interview was with a member of the organization.
20. A workshop for corporate executives on developing breakthrough leadership skills. The interview was with a magazine editor who observed and wrote an article on this process and later participated in another workshop.
21. A graduate school intensive course on a particular psychotherapeutic technique. The interview was with the creator of the technique and founder of an institute that provides clinical services and education.
22. The same graduate school intensive course as above. This interview was with one of the students in the course.
23. Two thought-leader gatherings designed to exchange ideas and dialogue on issues important to the participants. The interview was with a corporate consultant who was a member of one group and facilitator of the other.
24. Three people, relative strangers, stranded on a sailboat in the fog on a planned weekend sail to Nantucket. The interview was with one of them.
25. An ongoing evening study group meeting designed for dialogue and meditation on Christian values. The interview was with a group member.
26. A college male a capella singing group. The interview was with a student member and pitch for the group.
27. Large corporate gatherings designed as retreats for strategic planning. The interview was with the creator of the particular technique used, one of the original founders of the professional field of organization development.

28. A spiritually based movements class using ancient sounding and movement exercises. The interview was with a member of the class.
29. Groups of people in which music, sound, and vibration are used as a facilitation technique to uncover themes important for their work together. This interview was with the creator of this technique and facilitator of the groups.
30. A retreat for business leaders to discuss a new business paradigm, gathered in the weeks after September 11th. The interview was with a cofacilitator of the retreat.
31. A meeting of the coresearchers of a doctoral dissertation research project that inquired into the transformational journeys of business leaders. These eight people had been interviewed in depth and narrative poems had been created about their lives. This meeting was designed to share these poems and to enable further transformation among people who, for the most part, had never met. The interview was conducted with the doctoral student researcher.
32. A 10-week graduate course on leadership involving storytelling. The interview was with the professor and cocreator of this course.

The parameters around the diversity of these experiences were:

- Some were spontaneous, and others were planned;
- Some were small gatherings, and some were very large;
- Some were work-oriented, and others were volunteer, academic, athletic, or leisure-based;
- Some were gender-specific, and others contained mixed genders;
- Some were speaking or dialogue-based, and others were centered on physical movement;
- Some were conducted in silence, and others were organized around or involved sound;
- Although all had a purpose for the gathering, some were task-oriented with specific and measurable goals, and for others the *raison d'être* was the gathering itself;
- Some occurred in difficult or dangerous situations, and others were in pleasant ones;
- Some were intellectual in nature, and others were body-based; and
- Some were specifically spiritual in intent, and most occurred in secular situations.

1.4 Rationale

Several factors motivated and informed this study. First, there was a desire, on my part, to uncover occurrences of this phenomenon to confirm my suspicion that they are more prevalent than assumed because they exist below the level of conscious awareness. This proved to be the case as evidenced by the relative ease with which I was able to locate participants for the study. I ended up with more potential interviewees than I was able to accommodate for this research,

and I continue to gather stories that emerge from readers of the work. This “bringing to awareness” illuminates unarticulated experiences that are more widely occurring than we know and encourages further study and thought by giving the phenomenon credibility because of its prevalence.

Further, uncovering the diversity of types of collective resonance experiences that people report is important in that it shows itself to be a phenomenon to which many different kinds of people in many kinds of group settings can relate. As the common elements of collective resonance experiences begin to be uncovered, the relevance of the phenomenon and its accessibility to many types of people in many types of organizations may become clearer.

The bringing to conscious awareness of felt experience may have the effect, perhaps, of doing something else: that is, strengthening the field of resonance existing between individuals and groups on a broader scale. Knowing how we resonate with one another on energetic and vibrational levels and with larger fields of intelligence, we may be able to engage our minds more consciously in the vibration, which could serve to actually strengthen the field, much as the two wave forms of similar frequency mentioned earlier entrain, or “lock into phase” with one an-

other, oscillating at the same rate and increasing in amplitude. We already know how human beings flow, or resonate, with an activity in which they are engaged (Csikszentmihalyi, 1990). This paper can be seen as being about flow experiences between people and how collective flow may interact with larger fields. Also, because the act of retelling the incident of collective resonance in the interviews resulted in a recurrence of the felt phenomenon in almost all of the interview situations, that occurrence itself strengthens the existing field. This aspect, though not measurable in traditional ways, was a motivating force in this study.

Although the above factors serve to broaden our understanding of this phenomenon by involving more and different experiences, another intent was to deepen existing awareness and work in the theory and practice of organizational systems. There are already individuals and groups working to understand this arena. By identifying and elaborating on the components and characteristics of these experiences, I hope to contribute to giving form to this effort. Greater understanding, it is my hope, will help establish this field of inquiry, create tools for academics and practitioners to use to cultivate collective resonance more consciously in group situations, especially those that make important decisions that shape the future of our world, and give rise to new questions that will give direction to further research.

Our selves, our organizations, and our world, I believe, have gotten out of balance, out of harmony. One of the key elements of systems theory is balance: all parts are essential to optimal systemic functioning, and a state of harmony keeps it together. The key element in the Eastern philosophical traditions is harmony or balance. In my opinion, we have put too much emphasis on cognitive processes to make decisions and solve problems—the rational, linear part of our human systems, personal and organizational. We have ignored a vast resource, our physical selves, which continually access information from the environment surrounding us and inform our work together. To learn from this resource we need to begin to listen deeply to ourselves, to others, and to the universe around us.

By bringing attention to, and, I hope, action toward using our physical selves to access other sources of intelligence, we can work toward achieving a state of health. We can bring into better balance the logical, rational, and linear mind-sets and the intuitive, feeling, energetic ones. The word health means “whole” or “wholeness,” which is the ideal state to which we aspire personally, in groups and organizations, and as a world.

2 METHODOLOGY

2.1 Choice of Method

This inquiry was conducted using a combination of human science methodologies to provide the greatest amount of reliable information. The primary approach is phenomenological, complemented by participant observation. Phenomenology is the systematic attempt to uncover the meaning of lived experience. It is based on the belief that objective understanding is mediated by subjective experience of the phenomenon and that human experience is an inherent structural property of the experience itself.

Because this study was designed to elicit experiences of collective resonance, including energetic, intuitive, emotional, psychological, physical, and spiritual connections as well as intellectual ones, it includes the practice of participant observation in its design. In the physical presence of the interviewee I could most effectively gather the nonverbal and energetic information I sought, including data such as voice, gesture, energy level, and other expressions of feeling. Because of time and distance factors I conducted some of the interviews by telephone, which limited but did not eliminate the gathering of some aspects of resonance from the communication.

2.2 Participants

The participants included individuals who indicated that they had experienced the phenomenon of collective resonance as described to them using the definition I articulated earlier in this paper. No specific parameters were given in terms of type of experience, when it happened, or

who was involved. In some cases I used examples to spur their thinking. When I sensed intuitively that there was recognition on the participant's part of the topic being researched, I invited him or her to briefly describe the situation to me. I then made a judgment on whether to invite them formally to participate in the study.

Participants were identified by way of personal contacts and suggestions from individuals either working in the field, such as colleagues, clients, fellow students, members of the Collective Wisdom Initiative, and dissertation committee members, or they were identified by me either directly or by referral. Some emerged, seemingly randomly, from my daily life. Approximately one-third were individuals who indicated academic or professional interest in the subject prior to the study in the form of writing, research, or applied forms such as acting as facilitators in group settings. Two-thirds were individuals from diverse settings who indicated they had had an experience of the phenomenon but who had not had a specific interest in it prior to the interview.

All participants were apprised of the purpose and procedures of the study and signed a consent form prior to being interviewed. All interviews were audiotaped and lasted approximately one hour. Each participant had access to the audiotape or transcription of the findings of the research study. There were no parameters in terms of gender, race, ethnic or religious affiliation, profession, or geography. All participants were 21 years of age or older and speak English. All identifying factors were changed to ensure anonymity and participation in the study was entirely voluntary. About half of the participants were male and half female, and the age range was approximately 21 to 75 years of age. There was a range of ethnic, cultural, and religious backgrounds although I kept no specific data on this.

2.3 Researcher

The sole researcher, myself, has been involved in the organizational systems arena for more than 12 years as an organizational development consultant, 6 years as a graduate student in organization systems, and 8 years as an employee in the private sector. I have had the opportunity to experience the phenomenon being studied here, resonance in groups, as a facilitator and by way of personal participation. Though infrequent, these occurrences of collective resonance fueled my interest in deepening my own understanding of its components and characteristics as reported by others who claimed to have had similar experiences and contribute to the emerging field of knowledge about this phenomenon.

2.4 Data Analysis

The themes that emerged from the interview data resulted from my personal interaction with the data. Each transcript was read and reread multiple times with notations identifying the messages that I felt were being communicated about the elements of experience, the shifting factors, the significance of the experience, and the present moment felt sense. Likewise I listened to the audiotapes multiple times to help remember the energetic aspects, tone of voice, and nonverbal interview experience. Groupings and categories of experience formed across the interviews and became the findings of the research. In each category I included only those themes that were shared by at least one-third of the diverse set of collective resonance experiences, with one exception. This was not intended to minimize other elements of experience, shifting factors, or significances as every experience is unique and valid, but to highlight commonality and maintain clarity of communication of the findings.

2.5 Funding

This study was partially funded by the Fetzer Institute's Collective Wisdom Initiative. It is related to the work of this initiative in that it explores more deeply one aspect of the experience of collective intelligence and spiritual wisdom identified by their 2001 study, *Centered on the Edge: Mapping a Field of Collective Intelligence and Spiritual Wisdom*. (Briskin et al., 2001).

3 FINDINGS

This section presents the results of the study in four categories: elements of experience, a description of what collective resonance feels like to participants; shifting factors, or what was noticed by participants to have shifted their group into resonance; significance of the experience, or how important it was to the participants' lives or work; and recurrence of the phenomenon, or a description of whether the felt sense of the original experience reoccurred during the interview. For the first two categories—elements of experience and shifting factors—a visual graphic is included, and for all categories I have presented a narrative description. The complete dissertation includes numerous verbatim quotes from participants that support the narrative summaries reported here.

All findings reported were shared by at least one-third of the participant population with the exception of one element of experience, Total Presence, which was included because it was closely linked to another element. Although I believe that all reported aspects of experience are important and valid, there is special significance in the fact that some were widely shared among such a diverse group of individuals and experiences. It is these widely shared components that will also inform the creation of applications for more conscious cultivation of collective resonance in groups. The order of reporting of the specific findings in the narrative is descending, with elements of experience or shifting factors that were most widely shared reported first.

3.1 Elements of Experience

The 14 descriptors below illuminate how collective resonance felt to the 34 study participants:
Collective resonance

- is felt in the body,
- contains movement and rhythm,
- involves emotion,
- is felt as a connection to others,
- involves a felt sense of movement of boundaries,
- is high energy,
- includes touch and close physical proximity,
- requires a shift out of the cognitive and intellectual domain,
- is felt as a connection to self,
- feels calm, grounded, and relaxed,
- feels like an altered state of consciousness,
- contains awareness of an energy field,
- is felt as a connection to spirit, and
- requires total presence.

A visual map (Figure 1, below) of the above elements of experience and a concise explanation of each appear below. The full dissertation contains more discussion and numerous direct quotes from participants that support each theme identified.

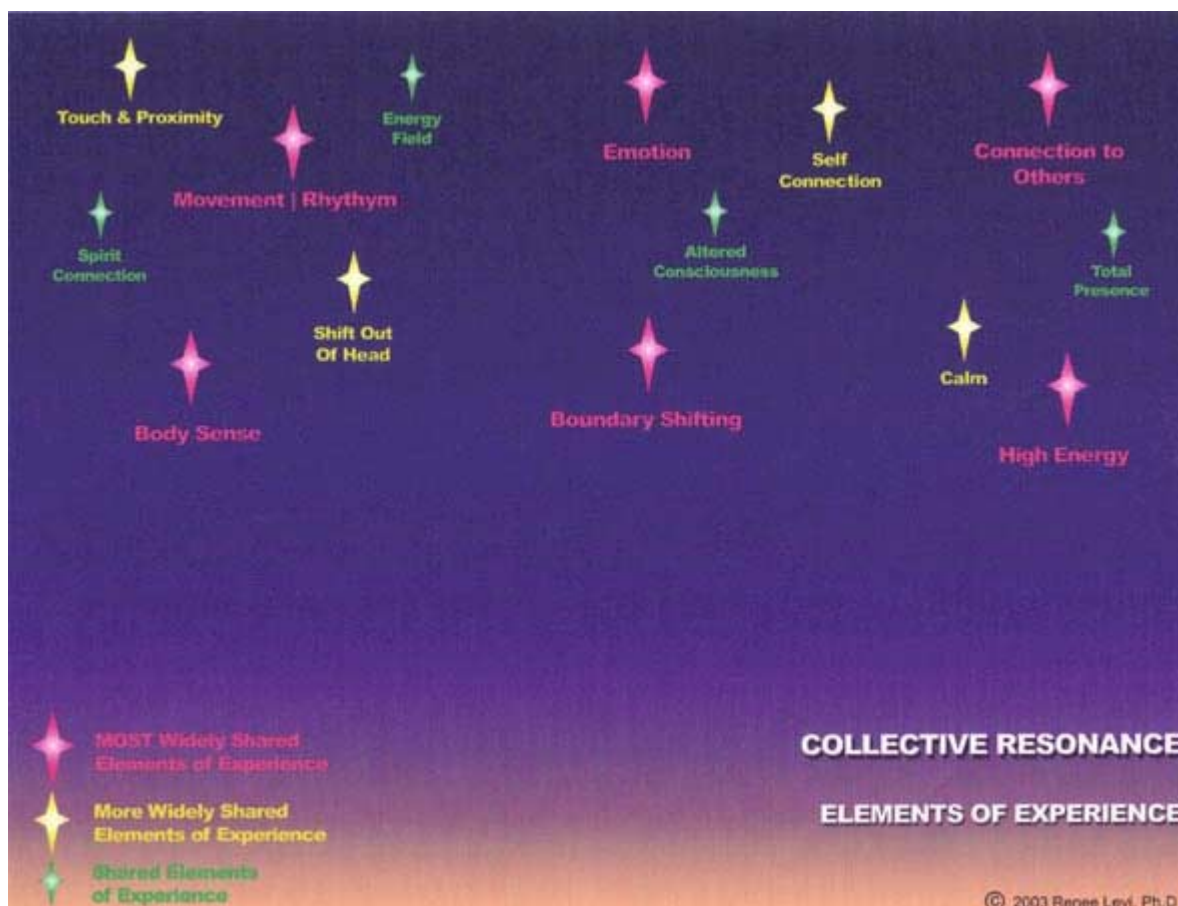


Figure 1. Visual map of elements of experience.

Collective Resonance is Felt in the Body

In 31 of the 32 collective resonance experiences described, there was recognition of a physical felt sense accompanying the intellectual and emotional ones. Although in Western society it is not typical to be aware of or focus on the messages that our bodies give and receive in daily life, when I asked specifically in this study, participants were able to identify specific areas of the body almost unanimously.

The heart and upper torso area (including back, lungs, and arms) was identified by more than two-thirds of this study's interviewees as the primary location of physical sensation. Participants described the sensation in myriad ways such as rhythmic quickening, expansion, connecting with other hearts through "threads" or "cottony connections," and arrow piercing of an individual's heart. Tingling of arms and upper back relaxation, easier breathing, and energy surges in the upper torso region were other ways people described their sensations.

Another physical area identified as feeling sensation were the eyes, with 8 participants reporting this phenomenon, 7 of whom associated it with greater clarity of understanding or comprehension.

An overall body sensation was another shared aspect of the experience. Several participants mentioned a feeling that their cells were affected, usually in terms of expansion or opening, letting go, or relaxing, whereas others reported an all-over experience of bodily memory of another time, tingling, peacefulness, a "certain vibration or resonance," wholeness, or "an immersion, almost."

Collective Resonance Contains Movement, Rhythm, or Flow

A reference to movement, rhythm, or flow appeared in nearly all of the interviews in this study. As such it was, after identification of physical body sense, the construct of experience that was most widely shared. In some contexts, movement, rhythm, or flow that contributed to collective

resonance happened when they were consciously designed into the group context. In some it occurred spontaneously from a somewhat sedentary situation, and for still others, movement was an inherent part of the task of the group, such as physical work or exercising, and was identified specifically as contributing to collective resonance. Also, participants identified times when movement, rhythm, or flow shifted a difficult group environment into resonance and other times when it emerged within a group that had been previously connected emotionally, psychologically, or spiritually. The use of language that conveyed movement, rhythm, or flow, such as the experience having “a spiral quality,” was also identified in this study as contributing to that felt sense, even when the context itself did not contain any physical manifestations of these phenomena.

Collective Resonance Involves Emotion

An emotional component of the experience of collective resonance was identified in 27 of the 32 interviews. In keeping with a Webster’s Dictionary definition of emotion as “a state of feeling, the affective aspect of consciousness . . .” (p. 271), I use the word emotion in this section of findings to denote those aspects of human awareness of experience that are involuntary and arise from a different source than rational, cognitive thinking. Some of the participants in the study identified these emotional components of experience in a general way, whereas others were very specific about what kind of emotion it was. Almost half of the people who identified emotion mentioned that they were also aware of a shift in focus that moved the individual “out of the head” and was necessary, they believed, to feeling the resonance in groups.

In addition to referring to emotion in a general way, the specific emotions mentioned widely were joy (16 of 27 interviews), gratitude, appreciation, empathy, compassion, and love. Laughter and fun were mentioned repeatedly and were included in the category of joy.

Negative emotions were not articulated as an element of the collective resonance experience itself but several participants described these—anger, frustration, fear, and others—as part of the group experience leading up to a shift into resonance. As the air force sergeant said, “Sometimes things get so bad that they become funny.”

It is important to note, too, that during many of the interviews, emotional expression, usually in the form of tears or pauses in speech, was involved. This, for me, was also an indication of the importance of the experience to the interviewees and substantiated the recurrence of the original felt sense in some cases.

Collective Resonance is Felt as a Connection to Others

A strong felt connection with others in the group was a commonly expressed element of the experience of collective resonance. Of the 32 interviews, 25 contained references to this feeling. Three of the interviewees indicated that they had had a prior connection to the other members of the group, usually in the form of satisfying personal friendships, but the vast majority of the study participants who identified this aspect of the felt experience of resonance did not know the other members of the group very well. The connection was made within the experience, and several mentioned that it carried forward in the form of ongoing friendships or work together after the group experience.

Although some of the participants spoke of connection in a general sense, there were two main ways that people expressed their felt experience: a feeling of belonging to the group and an acknowledgment of commonality or similarity with the others.

Collective Resonance Moves Individual and Collective Boundaries

The experience of movement of personal and collective boundaries was a pervasive phenomenon reported by participants. In 23 of 32 interviews, participants referred to a felt sense of shift in their perception of self, the group, or self within the group. They fell into four main categories of experience:

- Participants who experienced a sense of expansion of their individual boundaries
Fourteen interviewees reported that while in the experience of collective resonance, they felt a distinct sense of their individual selves growing larger or expanding out to the

group boundary and sometimes beyond. Some described it as a physical expansion, that is, their body or cells in the body felt larger, and some felt emotionally, psychologically, or spiritually expanded.

- Participants who experienced a sense of expansion of the group's collective boundary
Six interviewees mentioned a felt sense of the group's boundary expanding into something larger. They experienced the group itself growing bigger or transcending its own space.
- Participants who experienced a sense of collective oneness
These participants described a felt sense of oneness or unity that emerged from the coming together of separate selves in the group situation. In most cases the reported experience was one of dissolution of personal boundaries and the adoption of the collective boundary as one's own. For some, the reported sense of unity went beyond the group and referred to collective in a still larger sense.
- Participants who experienced a sense of individual boundary simultaneous with a sense of collective boundary

In addition to those people who experienced collective resonance as a sense of oneness, many described it as an experience of simultaneously maintaining one's own individuality while coming together to form a group gestalt. These people acknowledged that for them, a sense of group resonance was not diminished by the maintenance of their individuality and uniqueness and, for some, deepened both experiences. For some participants, the simultaneous holding of boundaries was seamless and easy, and others expressed more difficulty in shifting from a felt sense of self to group and back again.

Collective Resonance is High Energy

This category was difficult to name because there were so many ways in which participants referred to this phenomenon. Some mentioned a sense of aliveness, and others described a kind of power or strength that they felt in themselves or in the group experience. Still others spoke of excitement and of an awareness that some or all of their senses were heightened or sensitive. The common theme, though, is that there was a feeling of high energy in the room during collective resonance and that participants experienced it as a positive thing. More than two-thirds of the people I interviewed reported this phenomenon as a part of their experience and, thus, I consider it a significant finding of the study.

Collective Resonance Includes Touch or Close Physical Proximity

Reports of physical touch or close physical proximity of participants were abundant in this study and a significant factor in the experience of collective resonance. Of 32 interviews, 18 included specific references to touch or physical nearness and all of the situations or experiences that were described involved face-to-face personal contact among participants. Most occurred in small physical spaces and a few were in larger ones—outdoors, for example, or in a large ballroom or football field. Where people interacted in larger spaces, the actual collective resonance is reported to have occurred among small groups of people who were close to one another. It is not a finding of this study that collective resonance only occurs when people are physically gathered because I did not include at-a-distance situations.

Collective Resonance Requires a Shift Out of the Cognitive Domain

An important finding in this study was that to experience resonance, participants reportedly made a shift from the intellectual, cognitive, or brain-centered kind of thinking that powered their everyday lives into a kind of receptivity to physical, intuitive, or spiritual sources of information or experience. By reporting these findings in this way I do not mean to imply that the participants indicated that the brain was disengaged in this process, only that the focus shifted, for them, from a mind-oriented analytical process to bodily, intuitive, emotional, or spiritual knowing.

Previously I mentioned that almost all of the participants referred to a physical felt sense of experience. Of these, 14—almost one-half of the total interviews—indicated that to do this required a conscious shift from brain to body. For some it required a process of letting go, a willingness—not always easy—to release the thinking mind so as to experience in other ways. For others the ability to shift from a mental orientation was possible because they were doing a job or task that was so familiar to them that it required little analytical processing. These people mentioned that it was in these situations that they noticed a different kind of rhythm or sense of connection occurring.

Collective Resonance is Felt as a Connection to Self

More than one-third of the participants in this study—13 people—noticed that in addition to feeling a sense of collective resonance or group feeling, they felt a connection with themselves during the experience. One even called it individual resonance when she said, “The collective resonance and the individual resonance were in a dance.”

Several people described their inward journey as an insight, sometimes sudden, sometimes emerging slowly, about themselves. For one, the realization that the diverse threads of his life experiences were coming together suddenly to allow him to accomplish a seemingly impossible task was a profound connection with himself. Other people referred to healing—healing of themselves—as a result of experiences of collective resonance.

Collective Resonance Feels Calm, Grounded, and Relaxed

Although a majority of the participants reported an energized or highly charged state either personally or in the group during collective resonance, about one-third reported a very different feeling of calm, groundedness, or relaxation. Most of these reports emanated from situations that were not, by their nature, challenging or difficult. Of the 10 situations, 2 could have involved fear or danger but instead felt calm to the individuals who experienced and then reported them. This leads me to include the felt sense of calm, groundedness, or relaxation as an aspect of collective resonance, not only a characteristic of the type of situation described.

Collective Resonance Feels Like an Altered State of Consciousness

This quote is one of the ways participants mentioned a kind of altered state of consciousness that occurred for them during their experience of collective resonance. There were many others—about one-third of the participants in this study mentioned this phenomenon—and the metaphors that they used were diverse and creative. All had something to do with a form of separate reality from the usual way the participants experienced group life. The most common characteristic of the state of altered consciousness was a lost awareness of time. Below are some of their statements, presented in a way that I hope illuminates their variety and power:

It was like an immersion, almost. (volunteer coordinator, September 11th relief effort)

We had been elevated. It wasn't an out-of-body experience, I mean I knew it was me. But just for a while I was taken somewhere else and acknowledging a different form of me. Of us. (Friends meeting for worship)

It was almost like being inside this really strange bubble . . . with these seven individuals in this situation. (police sergeant in an arrest situation with seven suspects)

There is an altered state of consciousness that becomes riveting to the witness. (movements class member)

It felt surreal then; it feels surreal now. It almost feels like it never happened. (air force sergeant stationed in the Philippines)

When we're working like that, it feels like we're in the zone. (manager of a soup shop)

It seemed like a spell. (three people stranded on a sailboat in the fog)

It was almost as if I am under a spell or something . . . like the magnet's pulling. (craniosacral therapist training in waters of the Caribbean)

It's like you can cut this sacred space with a knife . . . or hold it in your embrace. (psychotherapist training a group of therapists)

My experience was . . . getting a bear hug from the Holy Spirit. We were completely at peace and enveloped by loving arms. (Christian study group member)

Collective Resonance is Experienced as an Energy Field

About one-third of the participants in my study observed that they sensed a kind of energy field surrounding or enfolding their group during collective resonance. I have included these comments in this section of the research findings because each made specific mention of an energy field. Although every individual described it differently they all clearly communicated an experience of being in an energetic space that was bounded in some way. Their descriptions are graphic, and although many expressed that they did not know what kind of energy or presence was there, they were all convinced that there had been some force within the space that influenced the collective resonance that was felt by the group.

Energy fields were described as being influenced by physical movement, a shift of focus from “the outside world” to the inner one by “letting go,” a willingness to suspend judgment in order to experience a different reality, and conscious intent to hold a space in which a field of collective resonance can emerge. One participant suggested that energy fields can be experienced between people at great physical distance and can be cultivated in a roomful of people through one person’s conscious attention and intention.

Collective Resonance is Felt as a Connection to Spirit

In addition to a felt connection to others and to self, about one-third of the participants in this study acknowledged sensing an outside force or source during their experience of collective resonance. Of the 12 occurrences described in this way, 3 were in a religious or spiritual context and 9 were in secular situations.

“Spirit was there. Spirit was among us. Nobody spoke.”

This phenomenon was felt both individually and collectively and was independent of the context of the group, whether secular or religious. It was described as sometimes entering the group through an individual, sometimes just suddenly being there, and sometimes affecting the group by bringing, or “guiding” the participant to the situation in which resonance occurred. The spiritual component was also described by some study participants as having more credence because it was collectively felt. At times it was experienced in traditional religious ways, such as in the form of the Holy Spirit, and at others through nature or as an unnamed but powerful felt force or feeling.

The comments in this section differ from those in the section on collective resonance experienced as an energy field. In these interviews, it is clear to me that the participants were referring to a spiritual connection, not a physical energy field that was the subject of the other section. Although spirit was expressed in various ways—nature, God, greater power, Other—the intent of the speakers, I believe, was to express a sense of sacred or spiritual connection.

Collective Resonance Involves Total Presence or Engagement

About one-quarter of the participants in my study mentioned that they felt fully present, engaged, or in the moment during their experiences of collective resonance. The reported complete immersion in the experience of the moment precluded distractions of any kind. A few interviewees connected this phenomenon with silence, such as in the process of deep listening to someone else’s story. Although most reported a positive experience, several suggested that being so fully engaged was exhausting and welcomed the relief of action and distraction.

3.2 Shifting Factors

One of the main purposes of conducting this research study was to uncover what participants identified as factors that influenced their group’s shift into collective resonance. The reason for this interest is to understand these shifting factors and determine whether they can be replicated in other group situations, in organizations, for example, to enable collective resonance to emerge. For all of the groups included in the study, there were specific aspects of the experience that contributed to a different way of being together or accomplishing a task together that,

for them, affected the experience in a positive way. These factors were, in descending order of consensus, vulnerability, silence, story, place/space, container contraction, shared intention, truth, sound/vibration, and spirit. Figure 2, below, is a visual map of the major shifting factors, and a concise explanation of each factor.



Figure 2. Visual map of shifting factors.

Shifting into Collective Resonance: Vulnerability

The most widely shared factor, with more than two-thirds of the study participants reporting some form of it, that influences the shift that a group makes into collective resonance was an acknowledged feeling of vulnerability. In my interviews, this feeling was expressed in personal contexts, in terms of the individual or individuals feeling vulnerable, and also as a characteristic of the group as a whole. In other words, sometimes individuals reported that they felt vulnerable within the situation and that this affected their own experiences and the group. Sometimes the interviewee noticed it in others in the group, and sometimes the entire group was reported to have been feeling vulnerable because of a planned or unplanned situation.

Vulnerability showed itself in various ways in this study. In some cases there was a sense of not knowing the answer, what was next, what to do, why they were there, or what had happened. In other circumstances, self-revelation was a sign of vulnerability, or a personal approach of openness to learning and growth reportedly helped shift the group into collective resonance. In still others, there were outside factors, such as fatigue or illness, danger, difficult conditions, or disaster, that influenced a sense of vulnerability in the group.

Shifting into Collective Resonance: Silence

More than two-thirds of the participants in this study referred to silence as a shifting factor in their group's experience of collective resonance. It is thus a significant finding from this research in that it was so widely shared an element of experience given the diversity of contexts.

Silence affected the group in three ways: (1) as a time for individuals to acknowledge and connect with one another and with themselves, (2) when it is collectively felt as a necessary next step in the group's process, and (3) as a facilitation tool used by an individual to affect group processes.

In a few cases, complete quiet was a part of the context in which the entire experience happened and was identified as a shifting factor. In others, interviewees mentioned the silence that they noted in an otherwise word- or sound-filled environment. For some, silence was an indicator of individuals acknowledging one another, listening deeply, or feeling a sense of connection with them, whereas for others it was a time to connect with themselves. Finally, there were participants who described their silent time together in the group as a collectively and tacitly understood next step in their process. One individual shared how his own silence facilitated groups into collective resonance.

Shifting into Collective Resonance: Story

Half of the participants in this study identified the use of story or storytelling as a factor in the emergence of collective resonance in their group. Whether a storytelling format was used consciously as part of the design of the gathering or whether sharing of personal stories occurred spontaneously or within another context—a task-oriented one, for example—the effect appeared to be the same: to help shift the relationships and connections within the group in a positive direction. Knowing one another at a deeper level by knowing their story or a part of their story and also learning about oneself from the stories of others emerged as a significant finding of this study.

Shifting into Collective Resonance: Place or Space

About half of this study's participants mentioned that they were aware that either the place, the surroundings in which the group met, or the energetic space between group members had a significant effect on shifting into collective resonance. Some participants identified historical or other significance of the place in which the group met as important, whereas others noted the elements of the space itself, such as its layout, aesthetic beauty, or location in a natural environment. Two participants felt that the feeling within the group occupying the space could be altered in some way by ritual or intent. In each of these, in addition to the psychological, spiritual, energetic, or emotional dynamics that occurred between the people, a spatial element was identified as a significant shifting element of experience.

Shifting into Collective Resonance: Container Contraction

One widely shared element of experience, reported earlier in this summary, was a felt sense of expansion, of feeling bigger, both individually and collectively. In addition, some participants indicated that they felt a sense of oneness, of the individual's personal boundary dissolving into the collective boundary. In this section, I share with the reader one factor that I believe influenced these phenomena, which is a contraction of the container, literal or metaphorical, that held the group. Sometimes the container was tangible, such as the walls of a room or walls of fog. Sometimes people made the space with their bodies, such as a circle of people standing or sitting. At times, the contracted boundary was an experience or a feeling, such as peripheral vision narrowing or a sense that the situation was being enacted in a bubble or as a microcosm of a larger experience. Darkness, too, such as at nightfall, was identified as contributing to a feeling of the environment contracting around the individual and group.

Shifting into Collective Resonance: Shared Intent

“Shared intent,” “common goal,” and “group purpose”: these were some of the ways that participants in this research study communicated their belief that an important reason that their group shifted into what they called collective resonance is that there was a strong, shared intent existing between group members. Sometimes it was a common task that the group either chose or was given to accomplish. Sometimes it was not a task per se but a desire shared by participants. In some cases the collective intent existed at the outset of the group's time together, or even prior to their gathering, whereas in others it emerged during the process. In all,

however, the fact that the members of the group were in alignment on something that they wanted from the experience was expressed in interviews as important to the sense of collective resonance that was felt by the individual interviewee. Almost half of the total number of interviews included reference to shared intent as a significant factor in the group's shift into resonance.

Shifting into Collective Resonance: Truth

The perception that the participants and others were connecting with their own truth and speaking it in the group was a significant factor in the shift into collective resonance, according to the one-third of my study's participants who mentioned it specifically. Truth-telling in a general way and truth in terms of authenticity, or expressing the essence of who one is or what one believes, were the two main ways this theme was expressed. The content of the truth was less important than the willingness to uncover what it was and the perceived courage to speak it aloud in a group of people.

Several participants noted that truth-telling had a field effect in the group, that when individuals speak from their own truth, it gives others permission to do the same. One person elaborated on how being authentic can be a leadership tool.

Shifting into Collective Resonance: Sound and Vibration

In about one-third of the experiences of collective resonance that were described to me, participants identified sound or vibration as a significant shifting factor. These participants were aware of an energetic component to the experience, an effect on the individual and the group produced by the physical energy in either sound waves or movement of air caused by the body or by vibration from another source, such as a drum. In some cases the vibrational component was an expected part of the group experience and in others it occurred spontaneously and unexpectedly.

Four main ways in which sound or vibration affected group process were through music or musical instruments, through singing, through physical movement or vibration, and through the human voice in speech. In two cases, facilitators consciously use sound to affect group process. One sings or makes sounds to amplify what she feels is called for in the group at the time, and the other uses the sonic resonance of dolphins when she therapeutically works with clients in ocean water.

Shifting into Collective Resonance: Spirit

Some form of spirit or spiritual connection was mentioned by about one-third of the study's participants as contributing to the group's shift into collective resonance. Spirit was described in many ways, with some participants acknowledging that they did not know what it was and some putting it into a more traditional religious context. The existence of an outside force, higher being, or sense of connection to a larger source than one's everyday reality was clearly identified as a shifting factor.

This finding from the study differs from spirit and spirituality as a felt phenomenon described earlier as an element of experience. In that section I documented the expressed aspects of what collective resonance feels like according to the people whom I interviewed. Here, I present a slightly different aspect that was communicated by my interviewees: spirit as a shifter of the group. In other words, the people to whom I refer here indicated in their interviews that it was not only a personal or collective spiritual experience but that some outside force actually affected the group's shift into resonance. Spirit was described in myriad ways, including "that overwhelming thing that happens," "Other," "Holy Spirit," "higher part of us," and "higher power."

3.3 Assigned Significance of Experience

A large majority of participants in this study reported that the experience or experiences of collective resonance, described to me in their interviews, significantly affected themselves, their relationships, their work, or their lives. Although a few indicated that the experience deepened an already existing understanding or practice of resonance in their work or life, the vast majority

claimed that important insights or changes resulted from their experience and affected the direction of their lives.

The insights or changes fell into four general categories, based on the number of participants who reported similar effects. They were insights or changes that were (1) transformational, influencing change in many arenas of the individual's life; (2) related to self, that is, to the way they perceived or understood themselves and how these affected actions they took in the world; (3) related to connections or relationships with others that affected their lives; and (4) related to choices they made in work or academic direction.

These findings are important, I believe, for the implications of this research. The perceived strong significance of the experiences advocates for the need for further investigation and practical application through conscious re-creation of venues in which collective resonance can emerge and affect decision-making.

3.4 Recurrence of Felt Sense

In 30 of 32 interviews, participants reported that they felt the same physical, emotional, psychological, and energetic feelings that they had experienced in the collective resonance situation that they had described in the interview. Five people spontaneously noticed it during the interview, and the rest responded to the final question asking about what they were feeling at the moment. In each case the felt sense was very similar to the original one, such as “energized, excited, youthful,” “being in the flow,” “a quickening in my heart area,” and “surreal.” For many there were additional elements such a sense of loneliness, emptiness, or loss from becoming aware of its absence in their current lives, or regret that they had strayed far from the valued feelings and lessons of resonance.

Although most accounts were positive in nature because the original experience of collective resonance was a positive one, one participant noticed that the same sense of sadness and fear that he felt before the group shifted into resonance also returned during the retelling.

Visible emotion in the form of tears or crying often accompanied the remembering of the experience and was related to the participants' feelings of loss or absence of resonance in their lives, mentioned above, or missing the people with whom they had shared the experience. Several mentioned that speaking about it had been healing or “nurturing for the soul.”

4 INTERPRETATION

4.1 Reflection

In this section I reflect upon the findings of this study and how they may fit together to answer the larger questions: What is this “collective resonance” we have been talking about, really, and how is it different from what we already know about the way groups come together and work together? Why is it important? How can we create situations that enable collective resonance to emerge?

Although the goal of phenomenological inquiry is to understand better a particular phenomenon by examining descriptions of lived experience, which ultimately must be interpreted by each individual reader of this research, I wish, in the following pages, to attempt to interpret what I heard in my special role in this endeavor. I use the identified themes of felt experience and shifting factors to begin to piece together a theory of what may be occurring during collective resonance, much like working with puzzle pieces enable them to form into an image.

There are two assertions that I would like to make based on the findings of this study. The first is that human beings send, receive, and store information in all parts of the body and that physical intelligence expands the traditional notion of brain-centered activity to include sound-wave imprinting on human cells. The second suggestion, following from the first, is that human beings, communicating with themselves, with one another, and with other forces in the universe, may be able to achieve resonance at a sound-wave level through rhythm entrainment. I discuss these findings briefly in the following pages and then address why I believe this information is important, how bodily intelligence and resonance can be enabled, and what future

directions the knowledge gained from this study might take. Please refer to the complete dissertation for a more comprehensive discussion of these topics.

That nearly all of the 34 participants in this study identified a felt sense in their body during their experience of collective resonance supports the claims of earlier researchers that every cell in the human body vibrates and that the sound waves that are generated by the vibrating cells, organs, and other parts of the human system affect each other and other human beings (Childre & Martin, 1999; Lynch, 2000; Pearsall, 1998; Schwartz & Russek, 1996). This level of interaction, although not often in conscious awareness, is happening all the time. Valerie Hunt's (1996) suggestion that the human energy field is linked to its psychological and intellectual counterparts by emotion was substantiated in this study as well, articulated as the widely shared emotional component to the felt experience of collective resonance.

The second suggestion, that human beings, communicating with themselves, with one another, and with other forces in the universe, may be able to achieve resonance at a sound-wave level by using rhythm entrainment is supported by other findings in this study. Whereas intrapersonal resonance—resonance between mind and body in the same human being—and its effect on health has been explored (Childre & Martin, 1999; Hall, 1983; Lynch, 2000), resonance on an energetic level between human beings is very new. This is the arena to which this study contributes most.

Upon first learning about rhythm entrainment in physics, I was intrigued with the fact that sound waves that emanate from vibrating bodies merge into single, amplified waves when they are vibrating at similar frequencies and thus result in resonance. As mentioned earlier, this is a different phenomenon than consonance, in which two separate sound waves come together harmonically but do not become a single wave. I have held the concept of entrainment throughout my research process, not knowing how it related to the “magic” that I was studying but knowing, on some level, that it does. I suspected that the fact that the human body vibrates at every level, but particularly in the heart region because of that organ's powerful movement and rhythm and the sound waves it must produce in the air around it, were important aspects of what can occur when humans come together physically. I wondered, early on, whether bodies in close proximity, especially hearts, might have an effect on one another similar to rhythm entrainment and when and how that might happen. Were there certain situations, like the ones deemed collectively resonant in this study, and my own, in which sound waves emanating from human hearts actually get close enough in frequency to entrain physically? What might that feel like? Under what conditions does that happen?

That beating hearts can have an influence on other parts of the body they share and that one heart can affect the brain waves of another person when they are in close proximity has been demonstrated by research (Childre & Martin, 1999; Hall, 1983; Hunt, 1996; Lynch, 2000; Pearsall, 1998; Schwartz & Russek, 1996), but that sound waves generated by human hearts close to one another might actually entrain, or become one, and amplify, is new. In physics, the waves must be close or similar enough in frequency to do this.

What does that mean, however, in terms of how human beings sense, feel, think, and behave? When might wavelengths coming from one human body be similar enough to those generated by another body? What might be going on in each respective body, mind, and spirit to create wavelengths of similar frequency? What does greater amplitude, or power, feel like or produce? Does it happen spontaneously or are there elements of the situation in which human beings come together that “set the tone” for the wavelengths to reach similar frequencies and become one?

Over two-thirds of my study participants felt a physical sensation, particularly in the heart region, a profound sense of connection with others in their groups, and an activation of emotions. These, I believe, are related to one another and to several other findings to suggest how entrainment might occur.

In addition to the above, during collective resonance, individuals report a deep sense of connection with themselves. This was mentioned outright by many participants and described in

various ways such as self-acceptance, discovery of personal gifts or talents, integrating parts of self, and healing.

Why does this happen? The finding that truth or authenticity is a widely shared influencer of group resonance may provide a clue. Getting in touch with one's own truth and then articulating it to the group—related to what I believe many participants described as story or storytelling and expressed in a variety of forms such as speaking, dancing or moving, or singing, for example—may be a source of self-connection. Also, seeing oneself, or aspects of oneself, in others' stories (called mirroring in psychology) may be another avenue. This form contributes to interpersonal as well as intrapersonal connection.

Other findings from the study are related as well. Individual boundaries open or expand, allowing individuals to connect or even experience a sense of oneness through vulnerability. A feeling of vulnerability, enabled by a sense of physical or emotional safety was the most widely reported factor that shifted groups into resonance. This was expressed in many ways, including a willingness to reveal parts of self, acknowledging a need for help or answers, or feelings of fatigue or fear due to physical danger or disaster. The reports of a need for the contraction of the container (the physical space, experiences of tunnel vision or being enveloped or encased, or creating small circles with people's bodies) is related to this creation of a feeling of safety.

Silence, too, was widely identified as a significant shifter of groups into resonance. This was either literal silence, which provided time to connect with oneself, or simply a quieting of the cognitive processes long enough to feel the effect of physical resonance and the ability to connect people.

I have presented themes of physical sensation, self-connection, truth, story, vulnerability, boundary movement, and silence. Taken together, I think that these themes convey that within the experience of collective resonance there is a very real getting in touch with what is true for the individual occurring concurrently with a sense of connecting with others. Perhaps they may be important clues to discovering how human wavelengths become "similar" enough to entrain.

It may be that as human beings become more authentic, more deeply in touch with themselves and what they believe, and display behaviors that express this, that their energy fields change. In physics, fundamental frequency (i.e., the frequency at which an object most naturally vibrates) allows for the most efficient use of energy. Human beings, too, as vibrating bodies, have fundamental frequencies. In meditation, for example, it is thought to be the entraining of the mind and heart to the natural rhythm of the person's breathing that helps reduce stress and anxiety and leads to cardiac and overall physical health (Childre & Martin, 1999). Perhaps getting in touch with and articulating one's own truth by participating with others in various ways can also affect the waves that emanate from a person and alter their electromagnetic field.

Now, if several or many people experience this shift simultaneously, such as in occurrences of collective resonance, how might the wavelengths affect one another? In rhythm entrainment, wavelengths of similar frequency merge into a single wave and amplify. Could this be the felt sense of an energy field, an altered consciousness, palpable high energy, or the distinct sense of rhythm and movement reported by many of my study's participants? In the emotional realm, could the widely shared reports of connection to others in the group in the form of feelings of belonging, common humanity, or love be another manifestation of the entrained energy waves? Is it possible, further, that mention of spirituality, especially in the secular realm in which most of the experiences described in this study occurred, or a sense of connection to outside forces, nature, or the universe may also be a form of entrainment, of the group with larger collectives? At this point in the exploration, these are only questions that arise from what has been revealed in this study, suggesting, as good research should, more avenues for exploration. I believe these are questions worthy of further study and I will shortly point to some specific arenas for it.

I would like to mention, before ending this section, the shadow side of collective resonance, something that has haunted me since the beginning of this research. We are all aware of what collective resonance turned toward the wrong purpose can do, from cults and gangs to nationalistic movements formed specifically for purposes of violence and destruction. What is the dif-

ference between collective resonance and groupthink, a collective psychological phenomenon that can lead to mob behavior (Janis & Mann, 1977)?

I believe the difference lies in one essential aspect of collective resonance, that there is a simultaneous connecting with others and connecting with self. In groupthink, the connection with others usually revolves around what I would call a third party to the experience (i.e., an ideology, an idealized leader, a perceived enemy, or a common cause or commitment). I believe that when individuals bond around that third party, their beliefs and actions can become evil, depending on the situation.

In collective resonance, there is no third party, necessarily, around which the bonding occurs. The connection, instead, is through the self, through internal authenticity and truth-telling, which influences physiological and energetic processes and, ultimately, entrainment with others who are doing the same. Although there may be a specific collective purpose, it is the inner component in collective resonance, indeed the key component, that shifts the individual and the group into resonance, and possibly affects the group's connection with still larger forces. This connection, then, can propel the group to achieve its goals, if it has specific ones.

4.2 The Importance of Collective Resonance

Why is knowledge and application of what we now know about collective resonance important? First, I believe it is a pervasive phenomenon in society though it has not been, to date, extensively studied. What leads me to this conclusion is the ease with which I was able to locate a wide range of experiences and the stories that continue to come forth as a result of distribution of this work.

Second, I believe that collective resonance can have both individual and collective positive health effects. Research has already shown the health benefits of individual resonance, but in the organizational arena too, meetings or work environments in which positioning, posturing, or otherwise boundary-tightening or defensive behaviors leave us with a sense of dissonance that underlies anger, fear, or dis-ease and is stressful both for the individual and for the group attempting to achieve a common goal. The overwhelmingly positive sensations and memories reported by my participants, both in the original experience and in the recurrence of it during the interview, and the significance of it in fundamental work and life choices, are seductive reasons to engage in collective resonance more frequently.

Third, understanding and applying what we know about collective resonance more consciously can, perhaps, put us on a path toward right action in the world. I believe this happens in two ways: by making choices that result in creation and sustenance of our selves and our natural world and also by literally altering the energetic field around us so as to take us to new levels of awareness and consciousness. I believe that there are sources of intelligence in the universe that we have only begun to access and allow to inform us. Greater knowledge and practice of collective resonance can assist us in this endeavor.

A fourth reason that studies such as this one (and the practices that they may spawn) are important is that they encourage the integration of perceived opposites: East and West, male and female, mind and heart, science and spirituality, contemporary and indigenous cultures, and others.

Finally, it is important to remember that great things can and have been achieved by way of the experience of collective resonance. Many of my interviewees were engaged in group endeavors that sought to achieve something, and extraordinary things were accomplished. In organizational settings in particular, this is reason enough to engage in such practices.

4.3 Implications of the Study

Good research answers questions and poses many more. I believe that this study has answered the initial question, "How are diverse phenomena of collective resonance described in terms of felt experience, awareness of shifts, assigned significance, and consciousness of present-moment re-creation of experience?" In the process, new questions have emerged that

begin to point to future directions for this work. They fall into two arenas: additional research and practical application.

As this is at least the third study that specifically inquired into collective processes in which resonance, intelligence, or spiritual wisdom occur (Briskin et al., 2001; Levi, 2001) and the results have proven to overlap to a considerable extent, there seems to be emerging a validated base of knowledge from which research can proceed. In terms of further inquiry, I believe it is important to deepen knowledge about collective resonance from various perspectives, such as studies in which this phenomenon is explored from multiple perspectives on one group situation. For example, would the seven suspects share the arresting officer's experience of collective resonance, and how might they describe it? For this study I used primarily one participant's perspective on collective resonance because one of the purposes was to broaden the inquiry to use many, diverse group situations. In a pilot study that I conducted, I used the multiple-participant perspective and found a great deal of similarity among various viewpoints. I think a furthering of this approach would be beneficial to promoting a deeper understanding of this phenomenon.

I think it is important, too, to determine whether there might be physiological validation of my theory of rhythm entrainment between human beings in groups. In other words, I would like to know what the human heart is actually doing in terms of heart rate and the frequency of the waves it emits during collective resonance. Perhaps a situation could be created in which a group of people assembles and incorporates some of the elements that have now shown themselves to be elements of experience or shifting factors in group resonance, such that measurements of the activity of the individuals' hearts can be taken. I have already begun this process in collaboration with individuals who can conduct such inquiry using technological tools.

This research studied group situations in which people were physically in close proximity. It did not include at-a-distance situations such as those that are now possible with technology. It would be important, it seems, to know whether energetic exchanges occur across long distances and how, especially as people now work, live, and communicate at greater physical distances from one another.

I believe that there is also significant potential for application of the findings from this study to conscious cultivation of collective resonance in group situations by designing certain elements into the group experience. Although collective resonance is, in itself, worthy of re-creation for the intrinsic value of connection (to self, other, and spirit) and health and well-being, creating situations of this kind in work groups, for example, can contribute to the accomplishment of necessary tasks. Some of the design constructs that became apparent in this research are the role of the physical setting, or the place itself in terms of aesthetics and proximity to natural elements, arrangement of seating and furniture (providing as few barriers to energetic exchanges as possible), architectural elements (as in Feng Shui), historical or future events that might provide context, and even energetic clearing, rituals, or conscious intention for the gathering.

Certain facilitation practices might also affect the emergence of collective resonance. Using a storytelling format or questions that invite reflection and honesty are examples. Even talking specifically about vulnerability and how that might affect the organization and its members, including, most importantly, the risks involved, would be valuable.

Finally, it is important that we know how to observe and interpret physical and energetic messages to be able to access information coming from our total selves. As we are a brain-focused society in the West, many of us are simply not aware of the many signals being delivered to us during the course of our daily lives, in groups or alone, although as this study reveals, when asked, we can indeed get in touch with where we feel resonance. Training on the many different philosophies of physical and energetic intelligence are available, including Native American, Indian, Chinese, and many other cultural perspectives, spiritual practices, and emerging technology-enhanced medical resources. I suggest that we access and incorporate these avenues to individual and organizational health.

Early in the dissertation I used the metaphor of a prism to communicate my intent in this study. Much as a prism that takes white light and separates out the various colors that compose it, what needed to be made visible were the individual “colors”—or the sounds—of the felt experience of collective resonance so that it can be better understood and re-created for more satisfying ways of living and working together in the world. Although in these pages I have attempted to do that, it is important to remember that white light, though composed of many colors, is still white light. There is still the overall magical experience available to us in groups that will never be quantifiable, that retains the mystery and the magic in its wholeness. As scientists we strive to understand our universe and the complex relationships within it, but we never will, completely. This magic deserves our respect and awe, from a distance, and although we uncover pieces of it and strive to make our world better by applying their wisdom, it is ultimately the mystery that makes life interesting.

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