

The musical act as a communicative spiral: Relational architecture, resonance, and ecclesial participation

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ABSTRACT: This article develops a communicological model of the musical act and examines its theological relevance for ecclesial participation. It argues that music communicates not primarily by transmitting a determinate message but by organising relations among participants across time. The proposed communicative spiral comprises seven analytical levels: participants, relations, mechanisms, negotiated meanings, emergent properties, social agency, and transformed conditions of subsequent action. Five mechanisms—synchronisation, co-presence, coordination, communicative resonance, and emergence—explain how musical events acquire relational efficacy. A nine-profile typology distinguishes acts by their dominant organisation rather than by genre alone. The model is then specified theologically through liturgical participation and *communio*, while retaining a critical distinction between social cohesion and ecclesial communion. Finally, the article proposes indicators for empirical research and states the model's limits. Its original contribution is an integrated, empirically testable framework connecting musical interaction, meaning, emergence, and agency without reducing music either to language or to autonomous form.

KEYWORDS: *musical act; communicology; communicative resonance; emergence; liturgical participation*

1. INTRODUCTION

Music is frequently described as a language, a vehicle of expression, a cultural text, or an aesthetic object. Each description illuminates part of musical experience, yet each can also obscure the event in which music becomes socially operative. A score does not listen, respond, trust, exclude, remember, or form a community. Persons do these things in relation to one another, and they do them through practices that include composition, rehearsal, performance, listening, movement, technical mediation, institutional organisation, and subsequent recollection. The relevant unit of communicological inquiry is therefore not merely the work or message but the musical act: a temporally extended process in which participants co-create relations, meanings, and social consequences through organised sound.

This shift from object to act belongs to a broader move in the humanities and social sciences from stable structures towards practices and events. Small's concept of *musicking* places all those who contribute to musical performance within the field of analysis (Small 1998, 8–18). Turino distinguishes participatory and presentational modes and shows how musical practices organise social life (Turino 2008, 23–66). DeNora demonstrates that music functions as a resource through which persons regulate affect, coordinate conduct, and compose everyday situations (DeNora 2000, 21–74). Schütz's phenomenology of making music together identifies shared time and mutual tuning-in as foundations of a distinctive social relationship (Schütz 1976, 159–178). These approaches decisively challenge the autonomy of the musical object. They do not, however, by themselves provide an integrated communicological explanation of how relations, temporal coordination, meaning, emergence, and agency belong to one musical event.

The research problem may thus be stated as follows: what conceptual model can explain the musical act as a distinct form of communication without assimilating it to verbal transmission, and what does such a model contribute to the theology of liturgical participation? The article advances two connected theses. First, the musical act is a dynamic, relational, and agential communicative process in which participants co-create meaning and emergent social properties. Second, this process is best represented not as a linear chain but as a communicative spiral: every act arises from prior relational conditions, transforms them through participation, and becomes part of the conditions of subsequent acts.

The study is theoretical, reconstructive, and synthetic. It integrates insights from communication theory, phenomenology, sociology of music, cultural theory, and theories of social emergence while formulating a distinct model and typology. Its theological section does not claim that every musical event is sacred or ecclesial. Rather, it asks how the general communicological architecture is specified when a musical act belongs to Christian liturgy. This distinction is crucial. Theology does not replace the social analysis of the event, and communicology does not exhaust the sacramental reality of worship. The two perspectives meet in the concrete question of participation: how persons are addressed, coordinated, enabled to respond, and formed into communion through a practice that is at once embodied, symbolic, institutional, and theological.

2. FROM THE MUSICAL OBJECT TO THE MUSICAL EVENT

An object-centred account rightly protects the identity, structure, and historical specificity of the musical work. It becomes insufficient when it treats performance as a secondary realisation of a completed object and listeners as terminal recipients. The same score can be involved in profoundly different communicative acts. It may organise concentrated listening in a concert hall, communal singing in worship, disciplined repetition in a rehearsal, memory work at a funeral, identity performance at a civic ceremony, or mediated participation in an online environment. The acoustic material may overlap, but the participants, relations, expectations, institutional frames, and consequences differ. Communicological identity therefore cannot be inferred from the work alone.

The transmission model produces a similar limitation. When communication is pictured as a sender encoding a message for a receiver, musical ambiguity appears as a defect that must be solved by decoding. Yet musical participation often succeeds without propositional agreement. Participants may not attribute the same image, narrative, or emotion to what they hear. They can nevertheless share a temporal horizon, coordinate bodily actions, recognise solemnity, sustain attention, and respond to one another. Communication here consists less in the transfer of identical content than in the constitution of a field of mutual orientation. Carey's ritual view is especially important because it interprets communication as the maintenance of a shared world rather than solely the transmission of information (Carey 2009, 15–39).

The musical act is accordingly defined here as a communicative process in which participants, through a common musical practice, co-create social relations, meanings, and shared experience. Five features follow. It is processual because its identity develops in time. It is relational because the relevant unit is mutual orientation rather than an isolated person. It is participatory because even apparently passive listening changes the field of action through attention, bodily presence, expectation, or withdrawal. It is communicative because actions become meaningful in relation to the actions of others. It is culturally situated because repertoires, conventions, spaces, institutions, and memories condition what participants can recognise and do.

The temporal boundaries of such an act exceed the sounding performance. Preparation shapes dispositions and access: selection of repertoire, rehearsal methods, spatial arrangement, publicity, admission, technical choices, and the participants' prior histories. The sounding event intensifies and reorganises these conditions. Afterwards, memory, evaluation, altered relationships, recordings, narratives, and institutional decisions continue its effects. A liturgical song learned over years, for example, can carry accumulated memories into a new celebration; the present act then changes how the song will be heard and used later. This extended temporality prevents the analyst from identifying communication only with acoustic emission.

Processuality also entails openness. A performance may be meticulously planned, but its communicative course is never fully predetermined. Performers respond to one another and to the assembly; listeners alter attention and posture; a technical failure redistributes agency; a familiar melody elicits an unplanned response; silence becomes either attentive or alienating. The event is neither arbitrary nor mechanically scripted. It is constrained improvisation within cultural, institutional, and musical frames.

3. RELATIONAL ARCHITECTURE: PARTICIPANTS ARE NOT FIXED SENDERS AND RECEIVERS

The musical act involves composers, performers, conductors, listeners, organisers, technicians, educators, ministers, and mediated participants. These names indicate functions, but they should not be mistaken for fixed communication positions. A performer sends sound and simultaneously receives cues from colleagues, the acoustic environment, the conductor, and the audience. A listener does not normally control the performed sequence, yet attention, singing, silence, movement, applause, distraction, or departure affects the situation. A conductor coordinates and interprets at once. A technician may become decisive when mediation determines what can be heard. The network is asymmetrical, but asymmetry does not eliminate reciprocity.

The basic unit of analysis is therefore the relation. A relation is not a line connecting two already complete subjects. It is a dynamic configuration in which persons recognise roles, interpret actions, and adjust participation. The musical act includes relations among co-performers, between performers and listeners, among listeners, between participants and space, between present performance and tradition, and between the event and its institutional setting. These relations overlap and feed back into one another. A singer's hesitation may alter the ensemble's coordination, affect the assembly's confidence, and then return as a diminished or strengthened vocal response.

Schütz's account of making music together remains foundational because it locates sociality in the sharing of inner and outer time. Participants do not merely act at the same clock time; they traverse a musical process together, anticipating and retaining phases in mutually relevant ways (Schütz 1976, 159–178). This mutual tuning-in does not require identical consciousness. It requires sufficient responsiveness for each person's action to enter the horizon of others. The communicological model extends this insight beyond co-performers to listeners, institutions, inherited conventions, technologies, and spaces.

Power belongs within this architecture. Access to repertoire, audible presence, spatial visibility, technical amplification, competence standards, and authority to initiate or terminate music are unequally distributed. A network description must not romanticise participation by treating every node as equivalent. In worship, for example, a cantor, choir, organist, presider, and assembly have differentiated functions and different capacities to influence the event. The relevant question is not whether differences disappear, but whether differentiated agency serves the common action or converts other participants into decorative spectators.

This ethical distinction resonates with the difference between relational communication and strategic manipulation. Communication becomes strategically distorted when persons are treated primarily as targets, numbers, consumers, or instruments of institutional reputation. Piotrowski's analysis of Jesus' communicative practice associates durable influence with consistency between proclaimed values and embodied action, relational trust, and the formation of active disciples rather than passive consumers (Piotrowski 2023, 24–30). Applied to musical practice, this yields a criterion of congruence: an event that declares communion while humiliating less skilled participants, monopolising audibility, or manufacturing emotional compliance contradicts its own communicative claim.

The relational architecture can be specified through three variables: position, capacity, and permeability. Position concerns where a participant stands in the event's spatial, institutional, and technological arrangement. Capacity concerns the practical ability to initiate, sustain, interrupt, interpret, or answer an action. Permeability concerns whether roles can be modified during the event. A conductor and a congregant occupy unequal positions and possess different capacities, but the communicative quality of their relation depends partly on whether musical feedback can travel across that asymmetry. Born's relational musicology is important here because it refuses to isolate musical form from the social relations that music mediates and imagines (Born 2010). The present model adds a processual question: by what observable transitions do such relations become meanings and consequences?

Relations operate on at least four intersecting scales. At the micro-scale, bodies coordinate breath, gesture, attack, and attention. At the meso-scale, ensembles and assemblies distribute roles and expectations. At the institutional scale, repertoires, ministries, technologies, and professional norms shape access. At the historical-symbolic scale, prior memories and inherited classifications make some sounds recognisable as solemn, popular, sacred, foreign, or authoritative. A musical act is communicative because these scales meet in a situated event. None of them alone determines the result. The same hymn can support confident common action in one assembly and expose exclusion in another because competence, memory, acoustics, authority, and ritual framing differ.

4. FIVE COMMUNICATIVE MECHANISMS

The relational field becomes operative through mechanisms that are analytically distinguishable but practically simultaneous. Five are central: synchronisation, co-presence, coordination, communicative resonance, and emergence. Here, 'mechanism' denotes a recurrent relational process that links one level of the spiral to another; it does not imply deterministic causation. Synchronisation, co-presence, coordination, and resonance organise interaction, while emergence identifies the generative transition through which interaction acquires group-level properties that feed back into the event.

4.1. Synchronisation

Synchronisation should not be confused with mechanical simultaneity. Participants may share a pulse while articulating different gestures, accents, and degrees of involvement. What matters communicologically is the production of a temporal horizon within which one action becomes anticipatable and answerable by another. Entrainment therefore has a relational rather than merely metrical character: it converts separate bodily trajectories into a field of mutual orientation. The effect is especially evident when an ensemble recovers after hesitation. The repaired pulse is not contained in any isolated sound; it is achieved through distributed listening, prediction, and adjustment.

This mechanism is normatively ambivalent. Synchronisation can support trust and solidarity, but it can also discipline bodies and conceal unequal control over tempo, volume, or repertoire. A communicative analysis must therefore ask who establishes the pulse, whose deviation is treated as error, and whether participants can modify the shared temporal order. In liturgy, rhythmic unity is not automatically ecclesial participation. It becomes communicatively significant when temporal coordination serves the ritual action and enables differentiated persons to enter it without erasing vulnerability, silence, or legitimate difference.

For empirical analysis, synchronisation can be traced across several coupled domains rather than inferred from beat alignment alone. Temporal evidence includes onset relations, shared breathing, coordinated gaze, anticipatory gesture, and the timing of entries, pauses, and endings. Interpretive evidence asks whether participants experience these adjustments as support, pressure, invitation, or correction. A congregation that enters late but increasingly securely may display growing synchronisation even when acoustic precision remains modest; a technically exact ensemble may display narrow synchronisation if all initiative is concentrated in one leader.

The key indicator is therefore adaptive reciprocity. Analysts should distinguish unilateral following from mutual adjustment, stable entrainment from momentary coincidence, and expressive flexibility from breakdown. Repairs are especially informative: after a missed cue or disturbed pulse, who listens, who changes, and whose version of time prevails? This makes synchronisation observable without turning it into a numerical proxy for participation. Timing data can show that bodies converge; field evidence is still required to establish how that convergence is organised and what it permits.

4.2. Co-presence

Co-presence is not exhausted by occupying the same physical space. It arises when participants become perceptually and practically available to one another within an event. They hear breathing, hesitation, intensity, and response; they also recognise that their own contribution can alter what others are able to do. Recorded and streamed music complicates this condition without abolishing it. Mediation separates production and reception, yet listeners may still enter relations structured by imagined audiences, platform interfaces, comments, repetition, and memory. The relevant question is thus not whether presence is immediate, but how a medium configures mutual accessibility and the possibility of response.

Liturgical co-presence has a further theological density. An assembly is not a collection of private listeners attending the same acoustic product. Its members are gathered into a common action whose unity precedes and exceeds any single musical contribution. Music can render that gathering perceptible by distributing attention and making response audible. It can also weaken it when amplification, staging, or specialist performance turns the assembly into an invisible audience. Co-presence must consequently be evaluated as an achievement of relation rather than assumed from physical attendance.

Co-presence can be operationalised through four dimensions: sensory access, addressability, feedback latency, and continuity of attention. Sensory access concerns what participants can hear, see, or otherwise perceive; addressability concerns whether a contribution can be directed to and recognised by others; feedback latency concerns how quickly a response can modify the event; continuity concerns whether a shared frame persists across interruptions or asynchronous encounters. These dimensions allow local, streamed, and recorded participation to be compared without presuming that one medium simply contains more presence than another.

Mediation redistributes rather than merely reduces presence. A microphone can make a quiet voice audible while concealing the unamplified assembly; a livestream can include distant participants while reserving initiative for those on site; replay can sustain memory while removing immediate reciprocity. Researchers should therefore document interfaces, camera and microphone placement, channels of reply, and participants' awareness of one another. Co-presence is strongest not where distance disappears, but where the form of accessibility and its asymmetries are explicit enough to be examined.

4.3. Coordination

Coordination names the practical organisation of difference. Unlike synchronisation, which concerns a shared temporal horizon, coordination concerns the fitting together of heterogeneous roles and actions. Composer, cantor, instrumentalist, technician, presider, congregation, and listener do not perform identical tasks. Their contributions become communicative when they are mutually legible and ordered towards an event that none can realise alone. Cues, rehearsed conventions, spatial arrangements, and technologies reduce uncertainty, but coordination remains responsive because participants continually interpret what the situation requires.

This distinction prevents participation from being measured by uniform audible activity. Listening, supporting, initiating, yielding, and sustaining silence may all be coordinated contributions. Failure occurs when one role monopolises the event or when technical efficiency substitutes for relational responsiveness. In ecclesial practice, differentiated ministry is not opposed to participation; it is one of its conditions. The normative issue is whether differentiation enables a common act or establishes a hierarchy in which some persons act while others merely receive a completed product.

Coordination operates through scripts, cues, conventions, material arrangements, and repair. Notation and rehearsal can stabilise expectations, while gesture, acoustic feedback, and tacit knowledge let participants adapt when expectations fail. Repair is especially revealing because it shows where practical authority lies: a conductor may redirect an ensemble, accompanists may simplify for an uncertain assembly, or participants may wait for a delayed digital signal. The quality of coordination depends less on eliminating contingency than on distributing the capacity to recognise and resolve it.

Its empirical indicators include the clarity of role transitions, visibility of cues, frequency and success of repairs, and the relation between preparation and actual participation. Excessive centralisation may render the assembly inaudible; insufficient preparation may make entry unsafe; technical delay may separate people who are nominally performing together. In liturgy, the question is not whether ministries are differentiated but whether their coordination makes the one celebration practicable. A role is communicatively ordered when its specialised action creates intelligible opportunities for the actions of others.

4.4. Communicative resonance

Resonance describes a responsive relation in which participants are affected and answer without either side fully controlling the result. It is more specific than emotional intensity. A loud or moving performance may produce excitation while leaving the underlying relation closed. Communicative resonance requires receptivity, a perceived address, and a response that can transform the continuing event. It therefore joins affect with agency: participants do not merely undergo sound but discover possibilities of attention, memory, movement, interpretation, or renewed action.

The concept also clarifies why resonance cannot serve as an uncomplicated criterion of success. Charismatic authority, repetition, acoustical force, and ritual expectation may manufacture compliance that resembles response. The analytical task is to distinguish responsive transformation from affective capture. This requires attention to access, freedom, duration, and consequences after the event. In liturgy, resonance is theologically credible when musical affect remains ordered to proclamation, prayer, sacramental action, and the agency of the assembly rather than becoming an autonomous spectacle.

Rosa's sociology of resonance sharpens the concept by distinguishing a responsive relation from mere availability or controllability (Rosa 2019, 163–212). Resonance involves being addressed, responding in one's own voice, and undergoing a change that cannot be prescribed in advance. Applied to music, these moments need not be emotionally uniform or harmonious; dissonance, grief, or resistance can be resonant when they elicit an answer and alter the shared course. The concept therefore describes a relational mode, not a musical style or intensity level.

Music is especially capable of resonance because it organises anticipation, tension, release, silence, timbre, and bodily response. A phrase sung by one group can be received, transformed, and returned by another. A hesitant assembly may gain confidence from supportive accompaniment; the stronger response then changes the performers' articulation. The event becomes more than parallel experience because responses circulate.

Operationally, resonance requires evidence on both sides of the relation. An observable change in phrasing, timing, posture, attention, or participation should be connected with a response that enters the continuing event; retrospective reports of being moved are insufficient on their own. Analysts should also test negative cases: affect without answer, answer without reciprocal modification, and short-lived intensity without consequences.

These distinctions separate communicative resonance from contagion, compliance, and private absorption while allowing modest events to count as resonant when responses genuinely circulate.

4.5. Emergence

Emergence explains how properties of a musical event arise from interaction without being reducible to an inventory of individual intentions. Groove, collective confidence, tension, solidarity, or a sense of sacred gravity may depend on many local adjustments whose combined result was neither planned nor possessed by one participant. Calling these properties emergent does not make them mysterious. It identifies a level of organisation at which relational patterns exercise real effects on subsequent perception and action.

Emergence also introduces a temporal dimension into the spiral. Once produced, a collective property becomes part of the conditions faced by participants: confidence encourages further risk, exclusion discourages later entry, and remembered resonance reshapes expectations of the next gathering. The outcome of one act therefore feeds into another. Yet emergence does not remove responsibility. Organisers remain answerable for the conditions they establish and for foreseeable patterns, even when they cannot dictate the total result. Theological language about communion must be especially careful here: social emergence can make unity perceptible, but ecclesial *communio* cannot be identified with any spontaneously generated group feeling.

Emergence is used here in a weak, relational sense: macro-level properties depend on the organisation of lower-level interactions but are not adequately explained by naming one person's intention or adding private states together. Properties such as shared confidence, trust, collective memory, a norm of attentive listening, or habitual exclusion belong to a configuration insofar as they arise from and are sustained by recurrent relations (Bedau 1997, 375–399; Sawyer 2005, 1–32). This position avoids both individualism, which dissolves community into separate minds, and reification, which treats community as independent of the persons and practices that enact it.

Evidence for emergence should identify the local interactions from which a property arises, the threshold at which participants begin to orient to it as a feature of the group, and the feedback through which it affects later conduct. Once an ensemble develops trust, members take musical risks differently; once an assembly acquires a stable repertoire, newcomers meet a pre-existing participatory culture. Conversely, repeated exclusion can teach silence as the expected role of non-specialists. These feedback effects explain how an emergent pattern becomes institutionalised without making it inevitable or absolving organisers of responsibility.

The mechanisms are mutually conditioning rather than interchangeable. Synchronisation supplies a temporal horizon; co-presence supplies practical availability; coordination orders differentiated contributions; resonance describes responsive transformation; and emergence describes the generative transition through which a configuration acquires group-level properties. An event can display one process without completing the others. Metronomic synchrony may occur among musicians who remain socially closed to listeners. Coordinated ritual roles may operate without affective resonance. An intense response may arise despite weak synchronisation, as in an unaccompanied lament. These dissociations make the model useful: it does not infer communication from musical togetherness alone but asks which mechanism is present, how it is produced, and what it enables.

Entrainment research gives synchronisation a precise starting point by treating coupled rhythmic processes as capable of mutual adjustment (Clayton, Sager, and Will 2005). Communicology must nevertheless extend beyond periodic locking. Human participants interpret temporal deviations, assign authority to cues, and decide whether adjustment is invited or imposed. The same acceleration can be heard as expressive intensification, technical insecurity, or domination by a leader. Measurement of onset timing therefore becomes communicatively informative only when joined to observation and participant interpretation. This combination exemplifies the model's general method: formal and behavioural traces identify patterns, while relational evidence explains what those patterns are doing in the event.

5. MEANING AS RELATIONAL NEGOTIATION

The question "What does this music mean?" often presupposes that meaning is contained in the work and recovered by listeners. The opposite view places meaning entirely in private association. The communicological model rejects both closures. Musical meaning arises at the intersection of sonic organisation, performance, bodily response, biography, cultural memory, social frame, and the reactions of other participants.

Meaning is therefore relational, situated, intersubjective, and culturally constrained. It is relational because it emerges between components of the event. It is situated because the same music participates in different meanings at a wedding, protest, funeral, classroom, or Eucharist. It is intersubjective because participants orient their interpretations towards publicly recognisable gestures, conventions, and responses. It is culturally constrained because interpretive plurality does not make every attribution equally plausible.

The phrase “negotiation of meaning” should not suggest a verbal debate conducted alongside the music. Negotiation often occurs through adjustment: a tempo becomes more spacious, a congregation joins after recognising a refrain, performers soften to permit another voice, or a silence is sustained long enough to acquire ritual weight. Hall’s encoding/decoding model helps preserve the possibility of differentiated reception, while Berger and Luckmann illuminate the social production and stabilisation of meaning (Berger and Luckmann 1991, 34–61; Hall 1980, 128–138). Musical communication nevertheless adds a distinctive mode of negotiation because temporal and embodied response can precede discursive explanation.

This account makes room for misunderstanding and resistance. Participants may reject an imposed repertoire, experience proclaimed joy as coercive, or hear a traditional melody through traumatic memory. Communicative success cannot mean identical interpretation. A better criterion is whether the event creates conditions in which differences can enter a meaningful field of response without being erased or weaponised.

The transition from relation to meaning can now be stated more exactly. First, a relation establishes a horizon of relevance: participants recognise which actions require attention. Second, the mechanisms make actions mutually consequential through temporal adjustment, availability, role coordination, responsiveness, and patterned recurrence. Third, participants attribute significance to these consequences in light of cultural codes and situational aims. Meaning is therefore neither inserted before the act nor invented after it; it is stabilised provisionally as participants learn what a gesture is doing here and now. Monson’s study of jazz interaction demonstrates how musical response can simultaneously articulate interpersonal knowledge, stylistic competence, and social identity (Monson 1997).

Negotiation also has thresholds. A possible meaning becomes shared enough to organise action when it is recognisable, answerable, and consequential. Recognisability means that participants can connect the gesture to a repertoire of distinctions; answerability means that they can respond, even by refusal or silence; consequentiality means that the emerging interpretation changes what follows. Agreement is not required. A congregation may recognise a triumphalist musical frame, decline to inhabit it, and thereby expose a conflict over the celebration’s meaning. This negative response is communicative evidence rather than noise to be removed. It shows that the spiral can produce contested meanings whose instability is itself socially significant.

6. FROM EMERGENT PROPERTIES TO SOCIAL AGENCY

The musical act does not merely signify social reality; it participates in producing it. Agency appears when the event changes dispositions, relations, memories, identities, or future possibilities. Music can organise attention, sustain collective action, reinforce trust, mark belonging, preserve memory, or authorise a norm. It can also exclude, stigmatisate, mobilise hostility, and reproduce hierarchy. Agency is a descriptive capacity before it is a positive value.

This distinction guards against aesthetic idealisation. Communal singing is not automatically communal in its effects. It can compel conformity or expose those who do not know the repertoire. Presentational excellence can invite contemplative attention or establish a hierarchy in which only specialists appear musically legitimate. Digital circulation can widen access or detach sound from accountable relationships. The same mechanism can support different outcomes depending on the relational architecture and institutional context.

Agency leads back to the image of a spiral. Participants enter with prior competencies, memories, expectations, and inequalities. Relations activate communicative mechanisms. Meanings and emergent properties arise. These produce effects that modify participants and their environment. The next act begins from transformed conditions. The model can be represented as:

participants → relations → communicative mechanisms → co-created meanings → emergent properties → social agency → transformed conditions of future musical acts.

The arrows do not indicate a rigid sequence. Feedback occurs at every level. An emerging sense of trust immediately strengthens coordination; a contested meaning alters co-presence; institutional power affects synchronisation before the first sound. “Spiral” is more adequate than “cycle” because repetition does not return participants to the same point. Musical practices accumulate history.

The seven levels of the spiral form a nested explanatory sequence. Level one identifies participants and their prior dispositions. Level two maps relations of access, authority, attention, and dependence. Level three examines the five mechanisms through which relations become operative. Level four reconstructs meanings negotiated in and around the event. Level five identifies emergent properties that belong to the relational configuration rather than to one actor. Level six tests social agency by tracing changes in dispositions, practices, identities, or institutions. Level seven records transformed conditions carried into later acts. The seventh level prevents the model from ending with an isolated performance: outcomes return as memories, skills, expectations, exclusions, and institutional decisions.

This architecture distinguishes emergence from agency. Emergence answers how a collective property comes to exist; agency asks what difference that property makes. A groove may emerge without producing durable change. Conversely, a modest musical event may alter who is willing to participate next time. Agency should therefore be evaluated through counterfactual and temporal questions: what became possible, difficult, legitimate, or memorable because this event occurred, and for whom? Collins's account of interaction ritual chains helps explain how focused attention and shared mood can generate symbols and emotional energy that travel between situations (Collins 2004). Yet the present model does not presume that intensity is beneficial. Emotional energy can consolidate domination as readily as solidarity.

Feedback makes the spiral nonlinear but not analytically vague. Each arrow names a proposition open to evidence. If coordination improves, one should be able to identify altered cues, reduced uncertainty, or redistributed initiative. If resonance occurs, accounts and behaviour should show both being affected and an opportunity to answer. If an emergent norm acquires agency, it should constrain or enable later conduct beyond the moment of its production. A claim that cannot be connected to such traces remains an interpretation rather than a demonstrated mechanism. The model thus permits strong theoretical description while resisting the temptation to call every powerful musical experience transformative.

7. A PROFILE-BASED TYPOLOGY OF MUSICAL ACTS

If musical acts are classified only by genre, instrumentation, or institutional location, communicatively different events can be placed together. A communicological typology instead asks how participation, relations, meaning, and agency are organised. Nine profiles may be distinguished.

A participatory act minimises the performer-audience divide and values inclusive contribution over polished presentation. A presentational act maintains a clearer distinction between specialised performers and listeners while retaining reciprocal influence. A communal act primarily cultivates belonging and mutual recognition. A ritual-liturgical act locates music within a symbolic and institutionally ordered action whose meaning exceeds aesthetic presentation. An educational act transforms competencies and habits of cooperation. A therapeutic-supportive act uses musical relations to sustain regulation, expression, and well-being. An identity-memory act narrates, preserves, or contests belonging and inherited memory. A mobilisation-protest act coordinates public attention and collective action. A media-digital act depends substantially on technological mediation, platform architecture, circulation, and asynchronous response.

These are ideal profiles, not sealed classes. A liturgical celebration can be simultaneously ritual, participatory, communal, educational, and digitally mediated. A concert may become an identity-memory act. The analytical task is to determine dominance and configuration: who may act, what responses are possible, which mechanisms are strongest, what meanings become publicly available, and what effects persist.

Profile analysis prevents normative shortcuts. "Participatory" does not automatically mean inclusive; participation may be demanded, surveilled, or restricted by competence. "Presentational" does not automatically mean passive; attentive listening can be a demanding and consequential response. "Liturgical" names a theological and institutional location but does not guarantee communicative felicity. The profile must be tested against the actual relational event.

The nine profiles can be distinguished by five criteria: distribution of initiative, permeability of roles, principal mode of coordination, expected form of response, and temporal reach of the outcome. The participatory profile distributes initiative broadly and permits entry at multiple levels of competence. The presentational profile concentrates specialised production while organising attentive reception as a meaningful role. The ritual profile derives coherence from repeated, institutionally authorised sequences whose efficacy is not reducible to aesthetic novelty. These profiles may share repertoire, but they organise relations differently; the decisive evidence lies in who can act, how response is recognised, and what counts as a successful event.

Dialogical organisation—turn-taking, quotation, call-and-response, and reciprocal modification—is a cross-profile mode rather than a tenth profile; it may make a participatory, educational, communal, or protest act more responsive. The communal profile foregrounds belonging, mutual recognition, and the maintenance of a group across repeated events. The educational profile intentionally changes competence, perception, or interpretive vocabulary and therefore includes asymmetric guidance that should become progressively enabling. The therapeutic-supportive profile is oriented towards regulated changes in attention, affect, embodiment, or coping and requires particular caution about professional competence and claims of efficacy. The identity-memory profile preserves, narrates, or contests inherited belonging through repertoire, performance practice, commemoration, and selective forgetting. None of these labels guarantees an ethical outcome: dialogue can be staged, community can exclude, education can normalise one canon, therapeutic language can depoliticise suffering, and memory can be used to police identity.

The mobilisation-protest profile uses musical organisation to contest a norm, authority, memory, or distribution of visibility. Its expected response may include mobilisation, solidarity, disruption, or public reframing. The media-digital profile is defined not simply by electronic transmission but by platform-shaped relations: interfaces, algorithms, latency, recording, replay, metrics, and asynchronous comment become part of the act. Digital mediation can widen access while redistributing agency towards platform owners and technically privileged producers. Because a single event may combine several profiles, analysis should identify a dominant profile, secondary profiles, and tensions between them rather than force exclusive classification.

A practical coding procedure follows. Researchers first identify the event's declared purpose and institutional frame. They then map initiative, roles, channels of feedback, expected responses, and the persistence of outcomes. Scores on these dimensions do not create a universal ranking; they make comparisons explicit. For example, two events both called participatory may differ sharply if one allows repertoire selection and improvisational initiative while the other merely demands singing at predetermined moments. A typology is useful only when it reveals these differences and generates questions that genre labels conceal.

Profile combinations can be represented as trajectories rather than static labels. A workshop may begin educationally, adopt a more dialogical organisation as participants acquire confidence, and culminate in a communal performance. A liturgy may move between presentational proclamation, participatory acclamation, ritual silence, and communal song. The order matters because one profile can prepare or inhibit another. Specialist presentation can enable participation when it teaches, carries a difficult text, or creates receptive attention; it inhibits participation when it establishes spectatorship as the event's default relation. Trajectory analysis therefore records not only which profiles occur but how authority and response are redistributed over time.

The typology also supports comparison across cultures only if categories remain functional. 'Call-and-response,' for example, should not be treated as an exotic stylistic marker but as one possible organisation of dialogical initiative. Likewise, quiet listening may be a highly active presentational response rather than evidence of passivity. Researchers must derive local indicators with participants and remain alert to categories imposed by institutions or observers. The profiles are second-order analytical tools: they organise evidence about relations, but they do not replace communities' own terms for musical action.

8. THEOLOGICAL SPECIFICATION: LITURGICAL MUSIC AND ECCLESIAL COMMUNION

Christian liturgy gives the general model a specific theological horizon. The celebration is not simply a human gathering to which religious meanings are added. It is the action of Christ and the Church, received in faith and enacted through differentiated ministries, signs, words, bodies, silence, and song (Vatican Council II 1963, paras. 7, 26). Consequently, liturgical music cannot be assessed only by autonomous beauty, emotional effect, or efficiency of congregational activation. Its communicative truth depends on integration into the celebrated mystery and the ecclesial relations enacted there (Vatican Council II 1963, para. 112).

The Second Vatican Council's concept of full, conscious, and active participation does not reduce participation to constant vocal production (Vatican Council II 1963, para. 14). Singing, listening, acclamation, silence, procession, memory, and interior appropriation can all belong to active participation when they are ordered towards the common liturgical act. Differentiation of ministries is therefore compatible with communion, provided that specialist action enables rather than displaces the assembly's response.

The communicological spiral clarifies this claim. Participants arrive with unequal competencies, memories, expectations, and ecclesial positions. Liturgical relations identify them not as a market audience but as members and guests called into a common response. Synchronisation organises shared liturgical time; co-presence makes persons mutually available before God; coordination orders ministries; resonance allows proclamation, song, silence, and response to affect one another; emergence describes how an ecclesial “we” becomes socially perceptible through concrete relations without being manufactured by technique. Agency becomes visible when the celebration forms habits of listening, gratitude, reconciliation, memory, and mission.

Piotrowski’s theology of liturgical music provides the required specification: the musical act belongs to the action of Christ and the Church, while the assembly is a genuine co-subject whose singing, listening, and response participate in the formation of *communio* (Piotrowski 2026, 137–145, 209–214). This claim both uses and exceeds the social model. Communicology can describe how relations and emergent properties are constituted; theology interprets ecclesial communion as gift and vocation, not merely a collective product. Grace is not an emergent property. Yet communion received as gift becomes socially perceptible and ethically testable in forms of participation, recognition, access, and responsibility.

This distinction prevents sacramental language from masking communicative failure. A celebration may be validly situated within ecclesial worship while its musical organisation discourages response, excludes voices, or substitutes spectacle for participation. Conversely, communicative warmth alone does not establish liturgical truth if the music disregards the rite, the proclaimed word, or the theological meaning of the celebration. The model thus requires a double criterion: fidelity to the liturgical action and relational congruence within its enactment.

The five mechanisms also require theological discernment. Synchronisation may embody common prayer, but it may become coercive uniformity. Co-presence may express the gathered Body, but physical gathering alone does not guarantee mutual recognition. Coordination may honour diverse ministries, but it may protect clerical or artistic monopolies. Resonance may deepen response to the mystery, but it may be engineered as emotional manipulation. Emergent unity may witness to communion, but it may be achieved by silencing difference. The normative question is whether the musical act enables persons to receive and answer together without abolishing their dignity and differentiated responsibility.

Silence is particularly revealing. In a transmission model, silence looks like absence of output. In liturgy, it can be an intense communal response if it is prepared, shared, and connected to the ritual action. The same external quiet can also signal confusion, exclusion, or disengagement. Its meaning depends on relations and uptake. A communicological theology therefore attends not only to what is sounded but to how the assembly is enabled to inhabit sound and silence together.

Liturgical participation, resonance, and *communio* must therefore be related without being identified. Participation names the enacted involvement of differentiated persons in the rite. Resonance names a responsive relational quality in which address and answer can transform the event. *Communio* names an ecclesial reality grounded theologically in God’s action and sacramentally enacted by the Church. Musical participation may dispose an assembly towards responsive communion and may make ecclesial relation sensible, but it neither produces *communio* by its own social force nor supplies an empirical measure of grace. The distinction protects theology from sociological reduction and protects empirical analysis from making claims it cannot test.

The communicological criteria remain nevertheless theologically relevant. A musical practice that systematically silences the assembly, renders some cultures inaudible, or converts ritual action into the display of a specialist group contradicts the participatory form the liturgy professes, even when the performance is aesthetically excellent. Conversely, audible uniformity is not the goal. *Communio* is better symbolised by coordinated difference: distinct ministries, timbres, generations, capacities, and moments of sound or silence ordered towards a common action. The spiral therefore treats unity as relational achievement rather than acoustic sameness.

Resonance contributes a diagnostic bridge. When proclamation, prayer, music, gesture, space, and silence become mutually answerable, the assembly may experience the celebration not as an external product but as an action in which it is addressed and enabled to respond. Such resonance remains vulnerable and cannot be guaranteed by technique. It may be interrupted by grief, unfamiliarity, disability, conflict, or justified resistance. These interruptions should not be read automatically as liturgical failure. They may disclose where the assembly’s real history meets the rite and where pastoral discernment must replace performance metrics.

This distinction has concrete implications for accessibility. Full and active participation cannot mean that every person must execute the same vocal or bodily task. Disability, age, language, grief, sensory sensitivity, and uneven musical formation alter the ways persons can attend and answer. A communicologically responsible celebration offers plural modes of entry and does not treat visible or audible productivity as the sole evidence of involvement. The assembly's music should make room for supported singing, listening, gesture, silence, technological assistance, and delegated ministry while preserving their orientation towards one ritual action. Such plurality is not a concession external to communio; it is one way differentiated membership becomes perceptible.

The same criterion exposes the danger of confusing cultural familiarity with theological universality. Repertoire associated with one class, generation, ethnicity, or ecclesial movement may feel immediately resonant to insiders while marking others as guests. No repertoire is socially neutral. Pastoral judgment must ask whose memory is activated, whose competence is rewarded, and whether unfamiliarity is met with formation or shame. A spiral analysis does not prescribe a universal style. It makes the relational consequences of stylistic choice available for theological discernment and for revision across repeated celebrations.

9. METHODOLOGICAL CONSEQUENCES AND LIMITS

The model is intended as a research programme rather than a closed metaphysics of music. Its categories can guide empirical inquiry. Synchronisation may be studied through temporal coordination and observed response; co-presence through spatial arrangement, attention, and perceived mutual availability; coordination through roles, instructions, rehearsal practices, and technological mediation; resonance through reciprocal adaptation and participants' accounts; emergence through recurrent group-level properties; agency through durable changes in relationships, memory, behaviour, or institutional practice.

No single method is sufficient. Musical analysis can identify structures that afford participation. Ethnographic observation reveals interaction and tacit norms. Interviews and focus groups disclose interpretive plurality. Video and acoustic analysis capture timing, gesture, audibility, and spatial power. Institutional analysis shows who selects repertoire, controls resources, and defines competence. Theological interpretation evaluates how these processes relate to liturgical action, ecclesiology, and the dignity of participants.

Three limits should be acknowledged. First, the model's breadth risks conceptual inflation: if every social consequence of music is included, the musical act may lose analytical boundaries. The remedy is to trace demonstrable relations between musical organisation, participant response, and outcomes. Second, the concept of resonance can be romanticised. Researchers must distinguish reciprocal transformation from intensity, popularity, and emotional contagion. Third, emergent explanation does not remove personal or institutional responsibility. Group-level patterns arise through relations, but persons and authorities remain accountable for the conditions they design and sustain.

The model also requires comparative testing beyond Western concert and liturgical settings. Its categories claim general relevance, but their operational forms are culturally variable. Synchronisation, authorship, listening, individuality, sacredness, and participation cannot be presumed to mean the same thing across traditions. Universality should lie in the questions the model permits, not in imposing one musical ontology.

Operationalisation should proceed through a matrix linking each level to evidence. Participants can be documented through role maps and demographic or competence profiles. Relations can be examined through observation of initiative, audibility, gaze, spatial arrangement, and decision-making. Synchronisation can be studied through timing and entrainment; co-presence through patterns of attention and reported mutual availability; coordination through cues, repairs, and role transitions; resonance through paired evidence of being affected and answering; emergence through properties repeatedly attributed to the collective configuration. Meaning requires triangulation among discourse, musical behaviour, ritual context, and disagreement. Agency requires follow-up evidence rather than immediate self-report alone.

A feasible empirical design combines video or audio analysis, ethnographic observation, interviews, document analysis, and a delayed follow-up. The unit of analysis should be a bounded musical act together with its relevant preparation and aftermath. Researchers can compare intended and enacted roles, code episodes of initiative and repair, collect contrasting participant accounts, and trace whether emergent norms persist. Negative cases are essential. Events in which synchronisation occurs without resonance, or resonance without durable agency, test the distinctions built into the model. Comparative studies could examine the same repertoire across institutions or different repertoires within one stable community.

The framework is falsifiable in a modest theoretical sense. Its explanatory value would be weakened if the five mechanisms could not be distinguished in observation, if the seven levels added no predictive or comparative precision, or if profile coding proved arbitrary across trained researchers. It would also be challenged if alleged emergent properties were consistently reducible to one actor's direct control, or if claims of agency lacked consequences beyond participants' retrospective enthusiasm. These possibilities are not defects to be concealed; they define a research programme in which categories can be revised.

Several additional limitations delimit the claims. The spiral privileges interaction and may underdescribe solitary listening, composition, and technologically generated practices in which reciprocity is delayed or opaque. Its vocabulary arises mainly from European communication theory, sociology, and Christian liturgical reflection and therefore requires decolonial and cross-cultural correction. The model does not decide aesthetic value, doctrinal adequacy, or therapeutic efficacy by itself. Nor does it explain neurological mechanisms. Finally, diagrams of levels can imply order and coherence that actual events lack. Fragmentation, refusal, fatigue, and accident may be outcomes rather than stages on a path towards integration.

The model's original contribution lies less in any single category than in the disciplined articulation of transitions among them. Existing approaches illuminate practice, participation, entrainment, mediation, resonance, ritual intensity, or social emergence, but they often stop at different explanatory levels. The spiral specifies how prior dispositions and structured relations become operative through mechanisms; how those mechanisms support negotiated meanings; how recurrent interaction yields collective properties; and how such properties may acquire consequences beyond the event. It also builds failure conditions into each transition. Relations may remain closed, mechanisms may be decoupled, meanings may be contested, emergent properties may be harmful, and intense experiences may leave no durable agency. This negative architecture is essential because it keeps the framework from treating integration as music's natural destination.

Accordingly, the spiral should be judged by comparative yield. It succeeds if it lets researchers explain why superficially similar musical events organise participation differently, identify where a claimed transformation breaks down, and connect fine-grained interaction to institutional aftermath without collapsing one into the other. It fails if its levels merely rename the same phenomenon or if every observation can be accommodated after the fact. Future research should therefore prioritise paired cases, longitudinal follow-up, culturally revised indicators, and explicit rival explanations.

For coding reliability, a study should define each mechanism before data collection, train at least two coders on the same episode sample, and report disagreements that reveal category overlap. Resonance is likely to be the most difficult category because retrospective reports of being moved do not necessarily demonstrate reciprocal transformation. A conservative rule should require at least two kinds of evidence, such as an observable adjustment plus an independent participant account. Emergence likewise requires evidence that a property is attributed to or enacted by the configuration and not merely asserted by the researcher. Transparent coding decisions will make comparison and criticism possible.

Ethical design is integral to the method. Recording worship or vulnerable musical practices can alter co-presence and expose persons whose consent is constrained by institutional authority. Researchers should minimise identifiable data, distinguish pastoral from research relationships, and provide meaningful options not to participate. Because interpretations of resonance, exclusion, and sacred significance may be contested, participant feedback should be invited without granting institutions power to suppress unwelcome findings. Reflexive notes should document the researcher's musical competence, ecclesial position, and affective investment, all of which shape what becomes audible as evidence.

10. CONCLUSION

The musical act is not a message travelling from a completed work through a performer to a receiver. It is a communicative event in which persons enter relations, share and contest time, coordinate differentiated actions, answer one another, generate meanings, and transform the conditions of future action. Its primary reality is neither the isolated object nor the isolated subject, but a culturally situated network of responsive relations.

The proposed model integrates seven dimensions: participants, relations, communicative mechanisms, co-created meanings, emergent properties, social agency, and transformed conditions. Synchronisation, co-presence, coordination, communicative resonance, and emergence explain how organised sound becomes socially consequential without needing to imitate propositional speech. The spiral form preserves history and feedback: every musical act inherits a world and leaves that world altered.

The theological application confirms that liturgical music communicates not simply because sacred words are sung or religious emotions are produced. It communicates when it belongs truthfully to the action of Christ and the Church, enables differentiated participation, and allows proclamation, listening, singing, silence, and embodied response to form a credible ecclesial relation. Communion is never reducible to a sociological effect, yet claims about communion become visible in the concrete organisation of voices, access, attention, and responsibility.

This framework also sharpens critique. Music can integrate and exclude, resonate and manipulate, coordinate and dominate. The relevant scholarly question is therefore not only what music means or whether participants enjoyed it, but what relations the act established, whose agency it enabled, what kind of “we” emerged, and how the event changed the possibility of future communication. A communicological theory of the musical act offers theology a language for asking those questions without reducing worship either to aesthetic form or to social technique.

Conflict of interest

The author declares no conflict of interest.

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