

“Let Us Sing as We Go”: Language Origins and the Sung Response of Faith

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Theological and evolutionary anthropological analysis of the role of song in human and (some) animal communication can help to expand our understanding of the ways that language functions as mediator of the divine-human relationship. This article considers the role of a musical protolanguage in the evolution of human language, demonstrating the connections between contemporary human language and the songs or calls of other animals. Consideration of the broader category of communication in the place traditionally held by a more narrow understanding of language can help to highlight the role that emotion, instinct, and relationality play in the relationship that humans have with God. Such a realization opens the doors to further theological questions about the role of humanity in a suffering creation, the relationship between God and nonhuman creatures, and the role of song in liturgical celebration.

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THE early twenty-first century has seen great interest in the relationship between human beings and the other animals with which humans share the planet. While recent theological arguments for a kinship model of relationship have received increasing attention,¹ the distinctiveness of the human experience continues to be a topic of discussion. In both scientific and theological circles, the role of language in human experience is a focal point in the examination of the relationship between humans and

¹ For a recent example, see Elizabeth Johnson, *Ask the Beasts: Darwin and the God of Love* (London: Bloomsbury, 2014), 268–70.

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other animals. While humans share genetic similarities with other animals, the capacity for language, itself related to self-consciousness, has long been seen as a dividing line between humans and other animals. For Christians, the Christological link with the logos of God has only served to enhance this distinction; if language is a point of connection between humanity and God, it has also been regarded as that which makes us “other” than an animal. In the pages that follow, I will argue that sung language, particularly as it is experienced in liturgical celebration, offers a key to a deeper understanding of the theological kinship between humans and other animals. In presenting this argument, I will first draw on the work of sacramental theologian Louis-Marie Chauvet to consider language in the context of identity-constructing relationships—including those mediated by the sacraments. I will then turn briefly to the work of anthropologists and linguists who suggest that the relational origins of human language are to be found in cadenced sequences that resemble the “calls” of some other animals. Finally, I will turn to the liturgical context to suggest that the choices surrounding what and when to sing have the potential to affect Christian understanding and experience of kinship with the rest of creation.

Language, Communication, and Human Identity: “Us or Them?”

There is widespread, although perhaps eroding,² agreement among theologians and social scientists that language is both intrinsic to what it means to be human and a marker of distinction between humans and other animals. Such a marker of division can be helpful in specifying human responsibility within the world, yet it has also created a potentially dangerous division between animals that are known to use language (humans) and the majority of other animals that (seemingly) do not. This section will first consider the significance and distinctiveness of language as understood by both theologians and scientists. It will then turn to the work of Louis-Marie Chauvet, a sacramental theologian whose work has been informed by the social sciences, to consider the ways that language functions theologically in Christian identity formation. It will conclude by suggesting that the term “communication” offers a more precise description than “language” for that which mediates the salvific relationship between God and humanity.

² For two recent examples of this discussion, see W. Tecumseh Fitch, “Why Formal Semantics and Primate Communication Make Strange Bedfellows,” *Theoretical Linguistics* 42, nos. 1–2 (2016): 97–109; and Leonardo Birchenall, “Animal Communication and Human Language: An Overview,” *International Journal of Comparative Psychology* 29 (2016): 1–26.

Despite the differences in their approaches, theologians who are concerned about revelation and sacraments, and anthropologists who are interested in the characteristics that make us human, each take a strong interest in the topic of human language. Theologians are interested in language as the medium of communication between God and humanity in Scripture and tradition, as well as in its role as an essential element of ritual celebration. Anthropologists concern themselves with the ways that language and identity develop as well as with the origins of human language in relationship to symbols, consciousness, and music. In these parallel pursuits, the two groups define language somewhat differently even as they pursue distinct, yet related, questions.

From the perspective of anthropology, paleoanthropologist and archaeologist Steven Mithen offers a basic definition of language as “a communication system consisting of a lexicon—a collection of words with agreed meanings—and a grammar—a set of rules for how words are combined to form utterances.” In a wry understatement, he adds: “But even this definition is contentious.”³ Mithen wishes to distinguish fully functional modern languages, complete with grammatical structures, from earlier forms of human communication that lacked grammar and a set lexicon. In a similar vein, evolutionary biologist William Tecumseh Fitch clearly differentiates between “language,” which is generally associated with humans, and “communication,” which can be applied to other species more broadly. Many animals communicate, but only humans, as far as we can tell, have language as Fitch defines it.⁴ As Fitch puts it, “Language represents and communicates meaning in a different, and much more flexible and detailed, way than ... other systems,”⁵ such as facial gestures (smiles, frowns) and discrete gestures (such as a “thumbs-up,” indicating approval). Distinguishing between signed languages⁶ and gestures, Fitch emphasizes the nearly boundless flexibility and creativity of spoken and signed human language. When compared with the more restrictive communicative potential of human facial

³ Steven Mithen, *The Singing Neanderthals: The Origins of Music, Language, Mind, and Body* (Cambridge, MA: Harvard University Press, 2006), 12.

⁴ Fitch elaborates: “Our best current evidence suggests that no other living species has a communication system that allows it to do what we human beings do all the time: to represent and communicate arbitrary novel thoughts at any desired level of detail.” W. Tecumseh Fitch, *The Evolution of Language* (Cambridge: Cambridge University Press, 2010), 26.

⁵ Fitch, *The Evolution of Language*, 25–26.

⁶ “Because signed languages possess this same open-ended expressive power [as spoken languages], they are appropriately termed ‘language’ (in contrast to gestural ‘body language’ or musical ‘emotional language’).” Fitch, *The Evolution of Language*, 26.

expressions and signals, or the similar capacity in other animals to signal emotion or danger through somewhat limited gestures such as snarling or chest thumping, human language, according to Fitch, offers a degree of flexibility and nuance that does not appear in other systems.

On the theological side of the table, the Catholic sacramental tradition has defined language much more broadly. In the twentieth-century context, instrumentalist understandings of language as primarily a conduit for the exchange of information have been countered with arguments that language should be understood as predecessor and context for humanity. Karl Rahner, for example, speaks of the individual "in and with the language in which he lives, from which he does not escape, and whose verbal associations, perspectives and selective a priori he appropriates even when he protests against them and when he is himself involved in the ever-ongoing history of language."⁷ Rahner sees language as occupying a particular place in the human experience, since it is through language that we know and participate in the world:

One has to allow language to have its say because one has to use it to speak and use it to protest against it....Language itself is a part of the world, and at the same time it is the whole of it as known. When language speaks of anything it also expresses itself, itself as a whole and in relation to its ground, which is distant but present in its distance.⁸

For Rahner, language is less a system that is used by humans to achieve specific goals, and more a preexisting system that is closely related to the outpouring of the logos in creation. For Rahner, humans exist in the context of language because God has first spoken to humanity, and humans are created with the capacity to respond to God's self-communication.⁹ Although Rahner refers frequently to the "word" of God, he is not indicating any particular item in the lexicon of any human language; rather, he is referring to the offer of God's very self through the divine self-communication.¹⁰

Theological approaches that consider the ways that language functions in human and ritual relationships likewise rely on definitions that are broader than those proposed by anthropologists. David Power, for example, has argued that language is "not restricted to the verbal, but refers to all human media of encounter and exchange, bodily and ritual, as well as

⁷ Karl Rahner, *Foundations of Christian Faith*, trans. William V. Dych (New York: Crossroad, 1997), 49.

⁸ *Ibid.*, 50. "The word 'God' is not just any word, but is the word in which language, that is, the expression of the self-presence of world and human existence together, grasps itself in its ground."

⁹ Rahner, *Foundations of Christian Faith*, 126–33.

¹⁰ *Ibid.*, 116–20.

verbal.”¹¹ Similarly, Nathan Mitchell has described language as “that whole complex, interactive system of communication, verbal and nonverbal, by which we become available to one another in both our embodied flesh and our interiority.”¹² Both Power and Mitchell focus on the possibility of encounter that language makes available to human beings. The inclusive nature of their descriptions highlights the reality that encounter cannot be reduced to written, spoken, or even signed words, but must also account for other embodied aspects of communication. Both definitions extend far beyond the more specific definitions offered by Mithen and Fitch. Power’s definition clearly includes the facial and bodily gestures explicitly ruled out by Fitch. Mitchell defines language in terms of communication, thus combining the categories that anthropologists seek to separate.

Louis-Marie Chauvet’s work on language and the symbolic order walks the fine line between attending to the possibilities that language use opens to humans in terms of ritual behavior and the more fundamental possibility of encounter that falls in the broader realm of communication. He argues that this attention to encounter has been lost “throughout the whole tradition of metaphysics, [in which] language has ceased to be what it was at the dawn of pre-Socratic thinking: the meeting place where being and humankind mutually stepped forward toward one another.”¹³ Here the linguistic emphasis is squarely on the possibility of encounter, and, perhaps even more fundamentally, the development of identity. “The first function of language is not to designate an object or to transmit information—which all language also does—but first to assign a place to the subject in its relation to others.”¹⁴ Thus for Chauvet, language has to do with the realization and construction of one’s identity in relationship to all that precedes the individual (God, culture, the created world). When individuals find their places in relationship to others in their world, they find themselves able to communicate in the “meeting place” that exists in the difference between beings.

Chauvet is clear that the flexible systems that humans know as language play a critical role in the systems of ritual and symbol that allow human beings to relate to God through the sacraments.¹⁵ He is also aware,

¹¹ David N. Power, “Sacrament: Event Eventing,” in *A Promise of Presence*, ed. Michael Downey and Richard Fragomeni (Washington, DC: The Pastoral Press, 1992), 59.

¹² Nathan Mitchell, “But Only Say the Word,” *Worship* 80, no. 5 (2006): 459.

¹³ Louis-Marie Chauvet, *Symbol and Sacrament: A Sacramental Reinterpretation of Christian Existence*, trans. Patrick Madigan and Madeleine Beaumont (Collegeville, MN: Liturgical Press, 1997), 33.

¹⁴ *Ibid.*, 119.

¹⁵ See, for example, Chauvet, *Symbol and Sacrament*, 515, where Chauvet discusses “Eucharistic discursive acts.”

however, that human language specifically is not the single most important element of an individual's relationship with God. While nuance and flexibility may be required for human beings who seek to discourse *about* God, Chauvet points out that the Holy Spirit, for example, is "beyond all language *the other side of the letter*, the breath that animates the body."¹⁶ He asks: "What can this Spirit whisper to us concerning God, this Spirit who 'has every name' and thus is 'the only one who cannot be named,' if not as Gregory of Nazianzus lyrically expresses it, a calling forth within us of a 'hymn of silence,' an inarticulate breath, a 'sigh too deep for words' (Rom 8:26), a discourse which breaks down into the pure 'cries' directed toward the Father (Rom 8:15, Gal 4:6)?"¹⁷ This apophatic approach highlights the degree to which Chauvet's sacramental system, while intricately entwined with the ways that language and symbol function in human identity formation and ritual behavior, also makes space for the fundamentals of communication as well as language. The "cries" directed toward God do not require nuanced expression of meaning but suffice to articulate and support the relationship that exists between God and humanity. In the prelinguistic sighs and cries, the body is recognized as the place of encounter between God and humanity. It is also the place of encounter between human beings, and by extension, human animals and nonhuman animals.

These experiences of encounter are foundational for identity development. For Chauvet, the development of a Christian identity structured around the hearing of Scripture, celebration of the sacraments, and practice of ethics¹⁸ also requires an authentic and clear-sighted understanding of one's place and responsibility in the world. The context for this understanding is a recognition of creation, including other animals, as graced.¹⁹ As Chauvet puts it, sacraments "reveal to us the 'sacramentality' of the world as creation. In virtue of its profane nature, therefore not sacralized, this world contains a prohibition against profanation. The most elementary things—water, bread, wine...—demand 'respect.'"²⁰ These elements are not sacred because they are used in the sacraments; rather, they can be used in the sacraments because, as part of creation, they are already graced. If the water, bread, and wine are already worthy of respect, then by extension so are all human beings, along with the other animals with which humans share the planet.

¹⁶ Chauvet, *Symbol and Sacrament*, 517; emphasis in the original.

¹⁷ *Ibid.*, 517–18. Here Chauvet cites Gregory of Nazianzus' *Dogmatic Poems*.

¹⁸ See Louis-Marie Chauvet, *The Sacraments: The Word of God at the Mercy of the Body* (Collegeville, MN: Liturgical Press, 2001), 28–31.

¹⁹ Chauvet, *Symbol and Sacrament*, 553.

²⁰ *Ibid.*

The Christian's responsibility is thus to receive the world as a gift that can never be fully possessed and in return to participate in God's ongoing creation of the world—to create “a ‘house’ open to brothers and sisters where all can find their places.”²¹ This sacramental worldview culminates in the understanding that “humankind is commissioned to offer God this return-gift throughout history by ordering this world in such a way that it cor-responds to its primordial divine plan.”²² The image of the world as a home for all creation is one that has ethical implications not only for suffering humans, but also for other animals that do not undertake theological discourse, but that do sigh and cry out for help when they are suffering. Chauvet points out that Christ is not only the one who took on human flesh in the Incarnation but is also the one “who takes flesh in elements representing by metonymy creation and human history.”²³ The return-gift offered to God is thus grounded in the hospitable recognition that everything that has been received is a gift that must be held lightly and broken open, “just like one opens the dense wholeness of a loaf of bread in order to share it.”²⁴ If humans have received the world as a gift, one understanding of the return-gift could be a world that is ordered in accordance with Genesis' vision for a world in which all living beings are regarded as “good” and are able to find a safe and stable place. Such a reordering is based on distinctions rooted not in language, but rather in commonalities that lead to respect for various forms of communication. Given the emphasis that sacramental theologians place on language understood broadly in terms of communication, this could include a theological acknowledgment of the potential that other animals have to communicate in ways that go beyond mere information transfer and extend to the establishment of relationships that are grounded in group communication patterns.

Both theologians and anthropologists are interested in the role that language plays in making us human. As theologians consider language in terms of both the divine-human relationship and the obligations that humans have to contribute to a world that must be a “home” for all, it can be helpful to consider some applications of the broader category of communication. Such a category shift avoids emphasis on information transfer and more accurately reflects the relational and identity-forming encounters that can be facilitated by sighs and cries as well as by words and rituals. To better understand this category, I turn now to look more closely at the

²¹ *Ibid.*, 554.

²² *Ibid.*

²³ *Ibid.*

²⁴ *Ibid.*

communication patterns of one other animal species as well as at the possible origins of the human system of linguistic communication.

A World of Singers

To consider the foundational significance of communication, rather than fully evolved human language for sacramental and liturgical encounter, an evolutionary perspective can be helpful. This approach enables theologians to appreciate better the ways in which human language may have developed in relationship to the communication systems of other animals. Such an approach has the potential to deepen our understanding of what it means to be human while also emphasizing the close relationship between humans and other animals. Although the evolution of human language is both a hotly debated topic and one increasingly in flux among paleolinguists and evolutionary biologists, two points emerge as particularly helpful for sacramental understanding. First, it is necessary to pause to appreciate the complex communication patterns that exist among other animals. In order to do this, I will offer a brief overview of the relational communication patterns of the Hylobatidae family (otherwise known as gibbons). These evolutionary cousins of human beings do not offer a stepping stone along the way to human language, but rather have a system of communication that has evolved in parallel with human language. Second, I will consider one theory about the evolutionary origins of human language among our direct ancestors. This theory highlights the relational aspects of human communication and thus offers a foundation for a primordial understanding of sacraments as experiences of encounter.

In order to understand better the human place in the context of the graced world, it must be acknowledged that many nonhuman animals have highly developed systems of communication that allow them to flourish in their natural environments. Some of these systems rely on gestures, or even dances; others on scent markings; and still others on various forms of vocalization. Such systems need not meet the criteria associated with "language" in order to be effective. Among these various systems of communication, that found among gibbons is interesting both in terms of the relatively close evolutionary relationship between humans and gibbons and for its relational emphasis.

The last common ancestor of gibbons and modern humans is thought to have existed about twenty to fifteen million years ago.²⁵ By contrast, the last common ancestor of humans and chimpanzees is thought to have existed

²⁵ Mithen, *The Singing Neanderthals*, 106.

about five million years ago. Modern humans ourselves date to only 200,000 years ago. Australopithecines, the genus from which our genus *Homo* evolved, lived approximately three million years ago. Fifteen to twenty million years of evolution in each species have moved both humans and gibbons well away from our last common ancestor. Thus, it must be noted that gibbons themselves are *not* our evolutionary ancestors, but something more like cousins in a family tree.

The vocal communication patterns of gibbons are distinctive among most primates. Like many primates, gibbons have a complex social system. They generally are known to live in small family groups of two parents and one to three juvenile offspring. As many animals (including humans) do, gibbons sometimes vocalize to convey information and to warn one another of impending danger. These types of vocalization also alert potential intruders that a particular territory has already been claimed. Gibbons are unusual among primates, however, in that they also vocalize for reasons that seem to have little to do with information transfer or warning; longtime mated pairs of gibbons engage in twenty- to thirty-minute daily morning “duets”²⁶ in which they alternate vocalizations with one another and sometimes incorporate practiced movements that are the same each time.²⁷

These gibbon duets are commonly referred to as “songs,” and appear to evoke effects that are comparable to at least some of the effects of human singing (to be discussed below). Relying on a classic definition from

²⁶ Among many species of gibbon, males and females have distinct parts within the duet, with males producing a greater quantity of shorter calls, while females produce a smaller quantity of longer calls, called “great calls.” As Dallmann and Geissmann note, there are species that do not fit this rule in which either males or females are the predominant vocalizers. Robert Dallmann and Thomas Geissmann, “Different Levels of Variability in the Female Song of Wild Silvery Gibbons (*Hylobates moloch*),” *Behavior* 138 (2001): 629–48. While the duet itself must be practiced, study of hybrid gibbons (with parents of different subspecies) indicates that each gibbon produces a call that is specific to its subspecies. Mithen, *The Singing Neanderthals*, 110. Thus the call is not learned from the parents: a hybrid gibbon produces a hybrid call. As Michael Tomasello observes, “Vocalizations, therefore, seem to be specific to a species, although it is also true that a species may learn to recognize or respond to specific vocalizations of another species—especially when it pertains to alarm calls.” Michael Tomasello, *Origins of Human Communication* (Cambridge, MA: MIT Press, 2008), 17.

²⁷ “One or both partners often exhibit an acrobatic display at the climax of the great call, which may be accompanied by piloerection and branch shaking.” Thomas Geissmann, “Gibbon Songs and Human Music from an Evolutionary Perspective,” in *The Origins of Music*, ed. Nils L. Wallin, Björn Merker, and Steven Brown (Cambridge, MA: MIT Press, 2000), 107.

W. H. Thorpe,²⁸ primatologist Thomas Geissmann defines “song” as “a series of notes, generally of more than one type, uttered in succession and so related as to form a recognizable sequence or pattern in time.”²⁹ While following a general gender-based pattern, each mated gibbon pair eventually produces a unique duet³⁰ that they learn together and practice. Such duets take place whether or not any potential threat is present.³¹ The duets cannot, therefore, be explained as elaborate alarm calls that, in some animals occur as an involuntary response to danger;³² however, it is likely that the vocalizations serve some sort of evolutionary purpose.³³ In this case, the purpose may be more relational and emotional than informational.³⁴ As Geissmann and Mathias Orgeldinger point out, there is a correlation between gibbon pairs that spend the most time duetting and pairs that demonstrate the other behaviors

²⁸ See W. H. Thorpe, *Bird-Song: The Biology of Vocal Communication and Expression in Birds*, Cambridge Monographs in Experimental Biology no. 12 (Cambridge: Cambridge University Press, 1961).

²⁹ Quoted in Geissmann, “Gibbon Songs and Human Music,” 104.

³⁰ Dallmann and Geissmann have suggested that it is sometimes possible to identify individual gibbons based on parts of the duet. Dallmann and Geissmann, “Different Levels of Variability,” 644–45.

³¹ While the original function may have been as an alarm call, and given the loud level of the duet, it clearly seems to continue to serve a public social function in demarcating an area, the current function seems to have shifted toward the fostering of the social pair bond. These two functions are closely related; Geissmann suggests that a more practiced duet signals the thorough establishment of the pair bond, thus discouraging intruders who might seek to take advantage of a new couple whose unpracticed duet signals their vulnerability. Geissmann, “Gibbon Songs and Human Music,” 119.

³² Tomasello also observes that individual primates will continue the “danger” or “food” vocalizations for as long as the issue remains their focus. Even when all members of the community are accounted for, and an individual might conclude that the information has been conveyed and the broadcast could end, nonhuman primates continue to vocalize in the patterns associated with a particular danger or food. Tomasello, *Origins of Human Communication*, 54. Tomasello argues that most primate vocalizations are neither voluntary nor intentional (28).

³³ In an evolutionary framework, the approach is always to look for the particular forces that act, or have acted, on an individual or community in order to change appearance or behavior. As Steven Mithen points out, for example, the fact that most human beings “enjoy good food and have food cultures...isn’t surprising as evolving an enjoyment of eating is a pretty good trick by natural selection to help us survive.” Steven Mithen, “The Music Instinct: The Evolutionary Basis of Musicality,” in *The Neurosciences and Music III: Disorders and Plasticity*, ed. Simone Dalla Bella et al. (Boston: Blackwell on the behalf of the New York Academy of Sciences, 2009), 3.

³⁴ As Michael Tomasello points out, “Primate vocalizations would seem to be mainly individualistic expressions of emotions, not recipient directed acts.” Tomasello, *Origins of Human Communication*, 19.

associated with a strong pair bond; siamang gibbons who duet together also groom each other, stay close to each other, and synchronize their other activities.³⁵ Geissmann and Orgeldinger suggest that the duetting could thus strengthen the pair bond and contribute to long-term sexual monogamy in part because individual gibbons are reluctant to have to start all over with a new duet partner.³⁶

Although we cannot understand the thought processes or emotional life of the siamang, observation indicates that their communication system includes a form of vocalization that is not reducible to information exchange. Without delving too deeply into theory of mind or potential motivation, it seems clear that at some level the emotional bond between partners in gibbon pairs is fostered in part through the practice of daily vocalizations and accompanying movements; this shared experience of vocalization and movement is fundamental to their relationship. Such an example found among nonhuman animals highlights the reality of the emotional lives of animals and the significance of nonlinguistic vocal communication for long-term relationships. Parallels to this can be found in hypotheses concerning ancient hominid communication systems as well as in human experience today.

While the Hylobatidae form of communication cannot be directly compared to fully developed human language as we know it today, attention to the complex and communicative “calls” that comprise the gibbon duets can help to shed light on one possible theory of hominid language development. This form of communication, which can be seen as a precursor of fully developed human language, is described by some scholars as a “proto-language.”³⁷ According to the protolanguage theory, at an early stage of hominid evolutionary development, individuals did not yet have the brain capacity to make flexible use of a system that we now know as language.³⁸ They did,

³⁵ “Each measure of duetting activity was positively correlated with grooming and negatively correlated with distance between mates. In addition, song activity was also positively correlated with behavioral synchronization. The correlation between the number of songs per day and behavioral synchronization just failed to reach significance.” Thomas Geissmann and Mathias Orgeldinger, “The Relationship between Duet Songs and Pair Bonds in Siamang, *Hylobates syndactylus*,” *Animal Behaviour* 60 (2000): 806. It must be noted that correlation cannot be taken to imply causality.

³⁶ Geissmann and Orgeldinger, “The Relationship between Duet Songs and Pair Bonds,” 808. See also W. Wickler, “Vocal Duetting and the Pairbond: I. Coyness and Partner Commitment: A Hypothesis,” *Zeitschrift für Tierpsychologie* 52 (1980): 201–9.

³⁷ For a helpful overview of competing theories, see Dereck Bickerton, “Language Evolution: A Brief Guide for Linguists,” *Lingua* 117, no. 3 (2007): 510–27.

³⁸ Arguing in part from archaeological evidence of brain size (smaller in *Homo erectus*, larger in *Homo sapiens*, who emerged on the scene as *Homo erectus* was disappearing), most scholars do not believe that *Homo erectus* possessed full language capacities with

however, likely communicate with one another through a series of cadenced calls that might have borne some resemblance, in both sound and effect, to the gibbon duets and to other animal calls. A careful look at this stage of development can help to illustrate the relational significance of human language and the reality that some modern human beings do not use human language, but do experience the more foundational relational results of human communication. In the following section I will examine the ways that this cadenced communication system may have evolved not only into discursive language, but also into song.

The dividing line between full-fledged language and hominid communication remains blurry.³⁹ Many scholars suggest that the time period of *Homo erectus* (1.9 million years ago until 200,000 years ago) offers a possible starting point for the earliest indicators of hominid language and song. The theory of a protolanguage consisting of cadences or holistic phrases has existed since the time of Charles Darwin,⁴⁰ and is described by modern-day scholar Alison Wray as “a phonetically sophisticated set of formulaic utterances, with agreed function-specific meanings, that were a direct development from the earlier noises and gestures, and which had, like them, no internal structure. Each would be phonetically arbitrary, unrelated in sound to even those utterances that meant similar things.”⁴¹ Protolinguistic

developed syntax. Some intermediate form of communication, most likely facilitated through “calls” or gestures, does, however, seem probable. In genetic terms, researchers have recently discovered that the gene FOXP2, which is central to human language function, exists in only a slightly different form in other species. While this cannot be said to be *the* “language gene,” its various functions in humans and in other animals seem to allow for some of the functions that support language capability. A recent discovery indicates that the same gene that is found in modern humans also existed in Neanderthals. See, for example, Johannes Krause, Carles Lalueza-Fox, Ludovic Orlando, Wolfgang Enard, Richard E. Green, Hernán A. Burbano, Jean-Jacques Hublin, et al., “The Derived FOXP2 Variant of Modern Humans Was Shared with Neandertals,” *Current Biology* 17, no. 21 (2007): 1908–12.

³⁹ Debates over the origins of human language are often rooted in questions of whether language began with a small lexicon of discrete words to signify common objects or basic actions, or if the origins lie in arbitrary but codified phrases that signaled a warning, or request, and were only later broken down into individual words.

⁴⁰ As Fitch notes, this argument is advanced by Charles Darwin in the second chapter of *The Descent of Man*. Fitch, *The Evolution of Language*, 470–74.

⁴¹ Alison Wray, “Proto-Language as Holistic System for Human Interaction,” *Language and Communication* 18 (1998): 51. As Steven Mithen puts it, “Wray and certain other linguists argue that the ‘words and rules’ definition of language places undue emphasis on the analysis of written sentences and pays insufficient attention to the everyday use of spontaneous speech, which often contains very little corresponding to a grammatically correct sentence.” Mithen, *The Singing Neanderthals*, 12.

hominid vocal expressions were thus not built on individual words or even phonemes, but functioned as set units in the same way that birdcalls, as well as many human stock expressions of greeting, do today. As an example, we might think of a toddler who says “Bye-bye” without any sense of the spelling or syntactical function of the sounds. Given the presence of cadences in these set expressions, they may have been more similar to the multisyllabic “calls” or “songs” of birds, water mammals, and other primates, than to the more sophisticated and nuanced grammar-based languages that modern humans now use.

As Wray points out, cadenced formulaic expressions remain deeply ingrained in human communication. She suggests that such expressions take on a central communicative role around the fringes of human language use: in processes of language acquisition⁴² or language loss.⁴³ Under such challenging circumstances, individuals might lack the boundless flexibility that is generally associated with human language, but they can continue to rely on formulaic phrases to facilitate relationships and develop and maintain identities. As Wray has pointed out, even when these phrases are used somewhat arbitrarily and thus fail to successfully communicate nuanced meaning

⁴² Wray notes that in some cases young children who are forced to learn a new language by immersion are willing to “memorize and use strings [of words] before really understanding them.” Alison Wray, “The Puzzle of Language Learning: From Child’s Play to ‘Linguaphobia,’” *Language Teaching* 41, no. 2 (2008): 259. This technique is especially effective for children around five years old who are outgoing and are thoroughly immersed in the new language. A study of slightly older children who were taught phrases but no grammar in a two-hours-per-week classroom setting (no immersion) showed a similar process, but a distinct lack of success. See also Tess Fitzpatrick and Alison Wray, “Breaking Up Is Not So Hard to Do: Individual Differences in L2 Memorization,” *Canadian Modern Language Review* 63, no.1 (2006): 35–57.

⁴³ Similarly, in a study of a retired opera singer who suffered from dementia, Wray observed that the use of formulaic phrases, in combination with gestures and movements, allowed the singer to continue to teach master classes in voice, even though her verbal skills had been impaired by the disease. See Alison Wray, “‘We’ve Had a Wonderful, Wonderful Thing’: Formulaic Interaction When an Expert Has Dementia,” *Dementia* 9, no. 4 (2010): 517–34. In the case of the opera singer, the singer “had a role and a responsibility [as the paid instructor], many years of experience to draw on, a repertoire of relevant formulaic expressions, words and music that she could quote to convey meaning, a legitimate use for gesture, a supportive colleague [the accompanist] and 14 individuals [the students] who had a financial as well as a human interest in collaborating with her to create meaning” (531). Although the formulaic phrases did not always successfully communicate the intended meaning, they did foster an ongoing relationship and made it possible for the individual to establish and maintain an identity and role in the community; the students reported that they learned from the teacher.

in the flexible and detailed ways usually associated with full-fledged human language, they nonetheless retain the capacity to facilitate relationship.

The nonlinguistic communication patterns of modern-day gibbons and early hominids can help to highlight the multifaceted roles of human language and communication today. Although language itself is a nuanced and flexible system, other forms of communication are equally important for human relationality. Some forms of modern human communication may be involuntary (e.g., exclamations of surprise). Other seemingly inconsequential “duets,” such as exchanges about the weather or day-to-day well-being, facilitate and develop relationships in ways that go almost unnoticed. Individuals who are unable to use language in its fullest flexibility often apply nonlinguistic communication patterns to sustain relationships that develop and confirm their identity and place in the world. Such communication patterns are both deeply ingrained in human identity and, to some degree, shared with other creatures such as gibbons, who also experience vocal communication as a means to relationship development.⁴⁴

By focusing on the relational elements of human language and other forms of communication, it becomes possible to see the primordial roots of the possibility for sacramental encounter; the ritual words and gestures of liturgical celebration build on ancient biological as well as anthropological patterns of interaction. In Chauvet’s terms, the gibbon duets, the protolinguisitic cadences, and the formulaic phrases used by modern humans are all forms of communication that facilitate a “meeting place” between individuals who relate to one another and are in the process of establishing and coming to understand their place in the world. While the identities and responsibilities of gibbons and early hominids may be different from those of modern humans today, the foundational elements of encounter are nonetheless present even without the flexibility and nuance of fully developed human language.

One instance in which the intersection between these various forms of communication becomes especially clear is in the experience of liturgical song. Liturgical song, while primarily reliant on modern human language,

⁴⁴ Celia Deane-Drummond rightly cautions that in emphasizing characteristics that humans share with some animals “the special place of other creatures in their relationship with God both within their own worlds and in communion with humans may become compromised.” This can cause particular problems if we yield to the temptation to pay greater attention “to those creatures that are most like us.” Celia Deane-Drummond, “In God’s Image and Likeness: From Reason to Revelation in Humans and Other Animals,” in *Questioning the Human: Towards a Theological Anthropology for the Twenty-First Century*, ed. Lieven Boeve, Yves De Maeseneer, and Ellen Van Stichel (New York: Fordham University Press, 2014), 61.

maintains many elements of the forms of communication discussed above. As such it serves as a helpful marker of the ways that human communication intersects with the experiences of some other animals.

Human Communication and Liturgical Song: The Lament of a Suffering World

For modern humans, song offers one way to bridge the gap between the nuances of full-fledged language and the emotional and relational structures of the broader category of communication. In the Christian context, this is particularly evident in liturgical celebration in which sung (or chanted) language has been prioritized. While language and song cannot be equated, as the protolanguage theory points out, the cadences commonly associated with sung language can also be found in the evolutionary roots of spoken language. In both the liturgical and the evolutionary contexts, human singing is understood as a particular use of language, a form of communication, with implications for the expression and indeed induction of general emotions, such as joy, sadness, and anger, as well as more complex feelings, such as a sense of unity within a group. First, I will consider the evolutionary argument for sung music as a facilitator of unity and as a means of both experiencing emotions and developing emotional intelligence; then I will consider the way that sung language functions in the liturgical context.

Human song is both a form of human language and yet also distinct from it. As Fitch puts it, “The main difference between spoken language and non-lyrical song is simply that the latter lacks specific, propositional meaning.... Song possesses the characteristics of openness and generativity, as well as cultural transmission, that are needed for language.”⁴⁵ Fitch is quick to add that many songs *do* indeed possess meaning, but in general they are not used (as language often is) to convey information from one individual to another in the most efficient manner. Whether songs are efficient or not, Fitch and others suggest that they function on a variety of other levels that point to intersections with the cadenced vocalization patterns of early hominids as well as other modern species.

As seems to be the case with gibbons, human songs can foster group unity as well as indicate its presence to potential threats. Highlighting the unitive characteristic of music, Mithen observes that “those who make music together will mould their own minds and bodies into a shared emotional state, and with that will come a loss of self-identity and a concomitant increase in the ability to cooperate with others. In fact, ‘cooperate’ is not

⁴⁵ Fitch, *The Evolution of Language*, 469.

quite correct, because as the identities are merged, there is no ‘other’ with whom to cooperate, just one group making decisions about how to behave.”⁴⁶ This unitive characteristic seems to be rooted in the capacity of singing, and other synchronized rhythmic activities, to increase oxytocin, a neuropeptide associated with bonding and other forms of social behavior in humans and other animals, such as singing mice.⁴⁷ Group song thus generally elicits a feeling of unity and well-being from participants.

Some scholars suggest that the complex social relationships that are possible between large groups of humans are connected in some way to humanity’s ability (distinctive among primates)⁴⁸ for synchronized rhythmic displays—the ability to keep a beat.⁴⁹ Noting this difference between the gibbon duets and human songs, Geissmann observes that “a well-coordinated song may be a more effective display than a cacophony of voices, and other social groups are less likely to attack or threaten well-coordinated groups.”⁵⁰ While the cadenced gibbon duets facilitate and strengthen the monogamous pair bond, larger group singing facilitates a sense of group unity on a larger scale. This has implications not only for the sung “display” of the community, but also for other aspects of life together. As Mithen points out, “Music making is a cheap and easy form of interaction that can demonstrate a willingness to cooperate and hence may promote future cooperation when there are substantial gains to be made, such as in situations of food sharing or communal hunting.”⁵¹ In the human context, sung vocalizations thus both effect and signal group unity. Both of these results contribute to the long-term safety and stability of the group and may have been important elements in supporting the growth and flourishing of early hominid communities.

⁴⁶ Mithen, *The Singing Neanderthals*, 215.

⁴⁷ Mona Lisa Chanda and Daniel J. Levitin, “The Neurochemistry of Music,” *Trends in Cognitive Sciences* 17, no. 4 (2013): 179–93.

⁴⁸ While most primate songs, including those of gibbons, do not possess a beat, recent scholarship has demonstrated that humans do share this capacity with parrots. See Aniruddh D. Patel, John R. Iversen, Micah R. Bregman, and Irena Schulz, “Experimental Evidence for Synchronization to a Musical Beat in a Nonhuman Animal,” *Current Biology* 19, no. 10 (2009): 827–30. For a concise discussion of the possible implications of this and related research, see William Tecumseh Fitch, “Biology of Music: Another One Bites the Dust,” *Current Biology* 19, no. 10 (2009): R403–4.

⁴⁹ Geissmann notes that human music, across cultures, tends to incorporate “a steady rhythm . . . , reduction of inherited stereotypy in favor of increased importance of learning phrase and sequence rules, and the option to invent new signal patterns (improvisation) and new conventions.” Geissmann, “Gibbon Songs and Human Music,” 118.

⁵⁰ Geissmann, “Gibbon Songs and Human Music,” 119.

⁵¹ Mithen, *The Singing Neanderthals*, 214.

The feeling of unity that is fostered through group singing is not explicitly an emotion; it is, however, closely related to the experience and expression of emotions which can be evoked through music, including group participation in vocal music.⁵² As Aniruddh Patel points out, particular types of music have the capacity to evoke particular emotions in listeners.⁵³ Music as a category of communication thus allows humans to interact with and potentially stimulate the emotions of others.⁵⁴ In this way, music can play an important role in identity formation⁵⁵ and in the emotional intelligence that has helped humans to survive and thrive in the complex social relationships that are the building blocks of our social world. Drawing from the work of Keith Oatley and Philip Johnson-Laird, Mithen suggests that while Western society may be inclined to dismiss “emotional” decisions, “our emotions ... are critical to ‘rational’ thought; without them we would be entirely stymied in our interaction with the physical and social worlds.”⁵⁶ In evolutionary terms, music has likely played a key role in humanity’s development of this capacity. In our own day and age, participation in music, particularly large group song, continues to inform and influence human decision-making in the social realm.

As Chauvet might put it, singing together, in an evolutionary context, is a form of communication that has allowed individuals to develop their identities in relationship to those around them and to find their places in the world. There is no means of knowing the content of the ancestral hominid songs that Mithen suggests were critical for societal development, nor is there really any need to know. Whether the songs were in the realm of the “sighs and cries” that Chauvet attributes to the prompting of the Holy Spirit, or whether they

⁵² Chanda and Levitin, “The Neurochemistry of Music,” 179. On the relationship between music and emotion, see also Aniruddh D. Patel, *Music, Language, and the Brain* (New York: Oxford University Press, 2008), 309–19.

⁵³ Patel notes a study by Balkwill and Thompson in which listeners were able to identify the same (intended) emotions across cultures. “The results revealed that listeners could identify the intended emotion when it was joy, sadness, or anger even though they were naïve with respect to the Indian classical tradition” of the music tested. Patel, *Music, Language, and the Brain*, 314. See also L. L. Balkwill and W. F. Thompson, “A Cross-Cultural Investigation of the Perception of Emotion in Music: Psychophysical and Cultural Cues,” *Music Perception* 17 (1999): 43–64.

⁵⁴ Mithen, *The Singing Neanderthals*, 85–101.

⁵⁵ Patel notes that in some cases listeners “use music in a process of ‘emotional construction,’ in other words, in creating an emotional stance that helps define their attitude toward aspects of their own life.” Patel, *Music, Language, and the Brain*, 317, 324–25. See also P. N. Juslin and J. A. Sloboda, eds., *Music and Emotion: Theory and Research* (Oxford: Oxford University Press, 2001).

⁵⁶ Mithen, *The Singing Neanderthals*, 87.

at some point possessed discursive meaning closer to that of fully developed human language, by identifying with a group through the outward display of sung participation, individuals took on a public identity and allowed themselves to be affected by it through their participation. As one voice among many, each individual in turn developed the emotional capacity to relate to a large group and contribute to the group's identity and shared action in the world.

In the present day, group song, complete with its complex evolutionary effects, is frequently found in the liturgical context. Here song is valued not for its efficiency as a form of communication, but rather for its historical and aesthetic contributions. As theologian and hymn writer Don Saliers has argued, "When we are engaged in sung prayer, we are not simply dressing out words in sound."⁵⁷ In the combination of words, music, and communal participation, which comprises sung prayer, the rhythms, cadences, note sequences, and communal actions function together in a manner that is distinct from the way that any of these elements function alone. The communal practice of liturgical singing, to whatever extent it is possible, can thus be understood to have three potential effects that are grounded in humanity's evolutionary past. First, it helps to facilitate the unified integration of the assembly's group identity as the Body of Christ. Second, communal song offers access to various forms of emotional expression, including lament, which are often otherwise neglected in ritual worship. Third, since emotion can helpfully inform human decision-making, the experience of liturgical song offers a framework for reflecting on the place and ethical responsibilities of human beings in the world.

When a community sings together, its sense of unity and cooperation increases. In the context of Christianity, the resultant feeling of emotional closeness is thus of particular importance to the celebration of the Eucharist, the sacrament of unity.⁵⁸ Communal singing, which the General Instruction on the Roman Missal (GIRM) calls for particularly in the gathering⁵⁹

⁵⁷ Don E. Saliers, "The Integrity of Sung Prayer," *Worship* 55, no. 4 (1981): 293.

⁵⁸ Attentive to the multifaceted ways that song functions in worship, GIRM emphasizes that people and ministers should sing together especially "on Sundays and on holy days of obligation." "General Instruction of the Roman Missal," in *Roman Missal*, 3rd ed. (2010), 40, <http://www.usccb.org/prayer-and-worship/the-mass/general-instruction-of-the-roman-missal>.

⁵⁹ Regarding the entrance chant, GIRM states that "the purpose of this chant is to open the celebration, foster the unity of those who have been gathered, introduce their thoughts to the mystery of the liturgical season or festivity, and accompany the procession of the priest and ministers." "General Instruction of the Roman Missal," 47.

and communion rites⁶⁰ of the Sunday liturgy, supports the transformation of the assembled community into the unified Body of Christ. As Judith Kubicki puts it, this communal sung or chanted “participation engages the imagination so that the event of gathering may negotiate both identity and relationships: as baptized members of the Church commissioned to do Eucharist, we begin to recognize ourselves as the Body of Christ, the presence of the resurrected Christ in the world.”⁶¹ In this instance, grace builds on nature. Communal singing alone could not affect the sacramental unity of the eucharistic celebration, and yet its traditional presence and biological effect intensify the experience of unity at a basic anthropological level.⁶² Like a sacrament, the communal singing both signifies and causes the unity of the assembly in the Body of Christ. Such effects are not the result of linguistic analysis or even necessarily the conscious decision to address God personally in prayer. Instead they emerge from ancient traits that were inherited from hominid ancestors and that modern humans continue to share with other animals on the planet. The capacity for communal encounter with God in the sacraments is to the best of our knowledge specific to humans; however, it must be considered in the context of traits that are shared with other animals.

In addition to the experience of unity that is evoked by communal singing, sung communication also invites the experience and expression of emotion in the liturgical context. Such an experience is not only a participation in the apophatic “sighs” and “cries” offered to God, but also provides a communal opportunity to continue to develop the emotional intelligence that humans use to relate to others in the world. As Saliers has pointed out, however, liturgical song has in recent years become narrowly focused on the expression of positive human emotions that have seemed most appropriate for public worship of God. Such emotions include happiness and thanksgiving, but have often excluded expression of the heart-wrenching sorrows that are

⁶⁰ This recognition and identity construction continues in the communion rite, the purpose of which “is to express the communicants’ union in spirit by means of the unity of their voices, to show joy of heart, and to highlight more clearly the ‘communitarian’ nature of the procession to receive Communion.” “General Instruction of the Roman Missal,” 86.

⁶¹ Judith Kubicki, *The Presence of Christ in the Gathered Assembly* (New York: Continuum, 2006), 84.

⁶² As such, communal singing, like the formulaic phrases associated with Alison Wray’s understanding of protolanguage, is also known to be particularly effective for persons suffering the effects of dementia. See, for example, Elizabeth Kennedy, Brian Allen, Angela Hope, and Ian A. James, “Christian Worship Leader Attitude and Observations of People with Dementia,” *Dementia* 13, no. 5 (2014): 586–97.

part and parcel of existence in an evolutionary world.⁶³ Saliers suggests that the expression of more negative emotions is avoided because such emotions are regarded as an embarrassment to the Christian message of good news.⁶⁴ Thus either through musical arrangements that elegantly mute the sorrow and anger of the Psalmist,⁶⁵ or through a canon of hymns that deliberately limits the expression of raw emotion, assemblies have simultaneously stifled their own pain and suffering even as they have often ignored the suffering of the world.

The somewhat neglected genre of sung lament, particularly in the context of sacramental celebration, provides for the ritual expression of such uncomfortable and yet necessary emotions. Operating at the anthropological level, laments allow worshipers the opportunity to recognize and experience the pain and suffering that is part of every human life. As Patel points out, musical pieces have the potential to evoke feelings of sadness and anger (as well as joy).⁶⁶ At the sacramental level of encounter with God's divine self-communication, the lament functions as a reminder that God does not necessarily operate in the realm of information transfer, but rather in the realm of relational presence to another. As Brian Wren writes, "The 'Why!?!?!?' of grief and lament is not a request for information, but an appeal for a listening ear. In the pastoral situation, one listens....Perhaps God also knows better than to interrupt too early, with explanations."⁶⁷ The genre of sung lament cries out not for discourse or explanation, but rather for assurance of God's revelatory presence in a time of suffering. Such a presence, the offer of friendship,⁶⁸ occurs on the emotional level, which is effectively mediated by sung communication. Here there is little need of efficiency, as Fitch puts it, in terms of spoken language but great need for honest emotional expression, which is to be found in song.

The expression and experience of emotions such as those articulated in sung laments foster the development of emotional intelligence, which, as Mithen argues, is critical for human flourishing. As such, it contributes

⁶³ See, for example, Neils Henrik Gregersen, "The Cross of Christ in an Evolutionary World," *Dialog* 40, no. 3 (2001): 192–207.

⁶⁴ Don Saliers, "Psalms in Our Lamentable World," *Yale Journal of Music & Religion* 1, no. 1 (2015): 103.

⁶⁵ *Ibid.*, 104–5.

⁶⁶ Patel, *Music, Language, and the Brain*, 314.

⁶⁷ Brian Wren, "Telling Truth through Tearful Songs," *Journal for Preachers* 26, no. 2 (2003): 24–25.

⁶⁸ Pope Paul VI, *Dogmatic Constitution on Divine Revelation (Dei Verbum)*, November 18, 1965, §2, http://www.vatican.va/archive/hist_councils/ii_vatican_council/documents/vat-ii_const_19651118_dei-verbum_en.html.

to human identity formation in ways that correspond both to Patel's understanding of the way that music functions in human experience and to Chauvet's understanding of the way that Christian identity is developed through hearing the Scriptures, celebrating the sacraments, and practicing ethical engagement in the world.⁶⁹ As Chauvet argues that Christian identity ultimately requires a participation in God's saving action in creation, it could also be suggested that liturgical song can help Christians to become better informed about ways to direct their participation.

Songs of lament, often derived from the Psalms of the Old Testament, can, when authentically set to musical accompaniment that supports the tone of the content, play a pivotal role in both sacramental celebration and ethical engagement in a world that is home not only to humans, but to the many other species of creation. As Denis Edwards writes, "Kinship with the other species of our planet is not simply an intellectual conviction, but something that is felt. The experience of feeling that we belong with other species and other creatures is something for which we can make space, and to which we can attend."⁷⁰ Liturgical song, particularly lament for the suffering that humans and other inhabitants of the earth experience, can help Christians to move beyond a mere intellectual understanding of the effects of global warming and climate change and toward a necessarily deeper feeling of solidarity with other species. As Saliers explains, "This is a form of 'affective knowledge,' [that] involve[s] more than cognitive understanding."⁷¹ This knowledge must also allow for the acknowledgment of human complicity in the suffering of the world. "Truth here involves the cultivation of the affections of sorrow or grief over what is described. The felt significance of what is lamented is awakened in the subject."⁷² In this case, sung lament has the capacity to awaken not only a feeling that, as Edwards puts it, "we belong with other creatures," but also an experience of sorrow or penitence for the harm that human beings have done. Songs of grief remind humans that we were also prey, that we suffer, die, mourn the death of loved ones, and sometimes experience these events as meaningless. Perhaps as importantly, these songs invite change. Laments, as Mary Catherine Hilbert expresses it, are "threatening to 'the way things are,' because they carry the seeds of hope that the future can be different from the present."⁷³ Laden with emotional impact, sung language

⁶⁹ Chauvet, *The Sacraments*, 28–32.

⁷⁰ Denis Edwards, *Partaking of God: Trinity, Evolution, and Ecology* (Collegeville, MN: Liturgical Press, 2014), 178.

⁷¹ Saliers, "Psalms in Our Lamentable World," 105.

⁷² *Ibid.*

⁷³ Mary Catherine Hilbert, *Naming Grace: Preaching and the Sacramental Imagination* (New York: Continuum, 1997), 119.

can help humans to face honestly the difficult realities of our world, to see ourselves truthfully in relation to other creatures, and to form the convictions necessary to take up our responsibilities in relationship to God, one another, and the rest of creation.

The lens of song offers an approach to examining human language and communication that bridges several apparent divides. While language and communication are often thought of as dialogical experiences occurring between two parties, the unifying characteristics of sung communication disrupt this dichotomy and allow for the establishment of a group identity that can then be in relationship to the Other. Such an image is helpful in thinking about the unified nature of Christians, the Body of Christ, in the world, offering its shared praises and laments to God in the liturgical setting and offering itself in cooperation with God's plan for the world. The emotional effects of song on this same Body of Christ can help to stir it to corporate action in union with God and for the sake of the created world. As Christians feel the emotional effects of lament and embrace the suffering of the world, they are empowered to participate in God's ongoing creation. Communal song is not the only way in which these things can be accomplished; however, as an accepted element of liturgical celebration, it offers the potential to amplify the sense of unity and shared emotion that is already present in the sacramental context. By strengthening the bonds of unity and kinship with creation, liturgical song mediates the cries of a suffering world as well as God's intentions for a world that is truly a home for all.

Conclusion: Singing Together in a Common Home

In his encyclical on "our common home," Pope Francis invites his readers to "sing as we go."⁷⁴ Coming at the end of the encyclical, this phrase seems intended to offer a note of hope in the face of the daunting problems of climate change, global warming, and human responsibility in the world. Such problems might seem better addressed by dense scientific articles, flowcharts, or soaring rhetoric designed to inspire change. The pope's choice to end with the image of singing might seem frivolous in the face of such challenges. Like many of Pope Francis' seemingly simple or homey expressions, the simple image of a communal song to ease the journey can function on multiple levels to point the way forward. In light of a consideration of the liturgical context from an evolutionary perspective, several insights emerge.

⁷⁴ Pope Francis, Encyclical, *Laudato Si'* (On Care for Our Common Home), May 24, 2015, §244, http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html.

First, study of the evolution of human language suggests that, as philosophers and theologians have long argued, language does indeed precede modern humans.⁷⁵ It is not under human control to be used only as a tool, but existed in some form before modern humans and has thus shaped human group and individual identity. From a theological perspective, language grows out of what Karl Rahner calls humanity's "openness,"⁷⁶ our transcendental longing for connection, our optimism in the face of difficulty. As such, human language is rooted in the history of human communication, which has included the inarticulate "sighs" and "cries" of suffering, perhaps the cadenced calls of a kind of protolanguage, the singing of our ancestors, the gestures of ritual, touch that brings humans together, and eventually, for most humans but not all, the flexible and nuanced systems that we now call language. The mystery of these origins serves as a reminder of humanity's lack of control of the created world. Language emerged with us, being shaped by us, and making us who we are. It continues to operate on humanity in similar ways, and theologians are wise to attend to these processes.

In addition to preceding modern humans, the theory that human language developed from a sung protolanguage acts as a reminder that the most foundational components of human communication, the capacity for relationship through encounter, do not rely on the nuances and flexibility of fully developed modern language. While nuanced discourse has contributed to humanity's development as a species as well as to Christianity's structure of Scripture and ritual celebration, the protolanguage theory reminds us that singing as we go is both an ancient practice and an inclusive practice. When Christians sing to God and with each other, they symbolize the reality of the relationship that is anchored by God's self-revelation and the human response in faith. This relationship is one of honesty and mystery, of unity and distinction, of words and feelings that are beyond words. Such a relationship is mediated by human language, but perhaps more accurately, it is mediated by human communication—by postures and gestures, sounds and reactions, intuitions and rational thoughts. For all of the emphasis that Christianity places on the proclamation and preaching of Scripture and the ritual words of the sacraments, the church has never applied the expectation that everyone who seeks to encounter God must possess a sophisticated ability to communicate at the level of human language. Prelinguistic children are baptized, elderly adults who suffer from various forms of language loss celebrate the anointing of the sick. Individuals who experience intellectual

⁷⁵ Rahner, *Foundations of Christian Faith*, 49.

⁷⁶ Karl Rahner, "Nature and Grace," in *Theological Investigations IV*, trans. Kevin Smyth (New York: Crossroad, 1982), 183–84.

disabilities are valued members of church communities. In each of these cases, the emphasis is on the possibility of encounter with Christ, the self-communication of God, who communicates through gestures and touch as well as through the words of human languages. Fully developed and shared language is not necessary for relationships nor for the process of singing (or humming or gesturing) as we go.

Finally, a focus on sung communication helps to clarify that while Christian identity brings with it a responsibility to participate in God's ongoing work of creation, to contribute to a world that is truly a home for all, it is also helpful to remember that humans are not so different from other species with whom we share the planet. The image of singing "as we go" invites a broader vision of the journey song—one that includes the duets of gibbons, the beat-keeping dances of parrots, and the elaborate and distinctive calls of whales and other aquatic mammals who use various forms of communication to express emotion and establish relationships. The shared capacity to sing points to the many deep genetic connections that link humans to other living beings. Through this lens, the image we are left with is not exclusively that of humans singing "as we go," but rather of a world of singers, in company with others who communicate, sharing the journey of life together. Such an image does not dispel the responsibility that comes with human and Christian identity, but it can evoke feelings of solidarity that can help Christians to understand their responsibilities more clearly.

The self-conscious practice of liturgical singing is not the only answer to these complex problems, but given its centrality to the Christian tradition, it is one of many possible ways that Christian identity can be developed. In order for this process to be most effective, liturgy planners must prioritize singing in ways that make sense for their communities. When a group sings together, however well or badly, unity is fostered in a way that is not possible when the group is divided between active singers and passive listeners. The GIRM's recent efforts to foster this unified song, particularly during the gathering and communion rites, is one important step. Liturgies should also reflect the spectrum of the joys and sorrows of created existence, offered to God in laments as well as hymns of thanksgiving. When liturgies are experienced in this way the value that the Christian tradition has long placed on liturgical singing provides a helpful example of the unitive and emotionally expressive qualities of this form of communication. When considered (and experienced) in light of the shared experience of other species in the created world, sung liturgy can facilitate a sense of unity not only within the Body of Christ but within the context of the whole world, which, as Chauvet maintains, must be regarded as a home for all.