Incommunicado

Paul Alan Cox

Incommunicado. Evening time in Samoa. I lie enthralled in the hush of tropical rain on my thatched roof and consider the changing mosaic of sounds that evidence the shifting pattern of village ownership as an island day progresses. In the dawn the village belongs to the infants, whose persistent cries are soon satiated by their mothers' milk and tender attentions. The village of the morning belongs to the chiefs, whose eloquent kava speeches fill the *malae,* or village common, with majesty and beauty. The village of the afternoon is contested by the voices of women weaving mats, the laughter of children on the beach, the excitement of a returning fishing party. The village at dusk, however, belongs to God as each family gathers for hymns and prayer. As evening falls, the gentle sounds of slack-key guitar and quiet singing announce the ascendancy of village youth who huddle in small groups beneath the breadfruit trees. As their voices slowly subside, the chirping of geckos—lizard acrobats that cling with suction-cup feet to posts and ceilings—fills the air. Later, the sleeping village is commandeered by domestic dogs that delineate through both vicious threats and infrequent violence their respective battlelines. Still later, the kapok and guava trees are claimed by troops of quarrelsome flying foxes noisily jousting for roosting places. Finally, just before the dawn, the vast feudal kingdoms of the mighty roosters are noisily proclaimed even as first light steals their nocturnal splendor.

Incommunicado. Although we are surrounded by a multitude of messages, such as those I have described in Samoa, we are in effect held incommunicado because of our unwillingness or inability to interpret them. André Gide once declared that everything that needs to be said has already been said. The problem is that no one was listening. Each moment the universe whispers its secrets to us, yet we are incommunicado, unable to perceive the signals that engulf us. And so we are deprived of incalculable richness because we will not or cannot hear and understand the music of nature. I argue that our collective deafness is partly our own doing, but also partly an

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inescapable limitation of these mortal cloaks we now wear. Yet I present a message of hope, an affirmation that our minds, our hearts, and our souls can provide, with due effort, means to transcend these handicaps.

As human beings we continue to suffer the aftermath of Babel. For example, where I work in the Solomon Islands more than six hundred distinct languages are spoken. Frequently, even direct translations from other languages are remarkably uninformative as to the intended message. For example, a Samoan chief may greet you by saying "ua tatou maga fetau soifua"—"We have had life in the crotch of the fetau tree." However, the sublime expression of joy contained in this greeting might escape you, particularly if you did not know the ancient story of Leutogi Tupaitea, and how she escaped from a hostile village only to be trapped in the crotch of a fetau tree. The villagers surrounded the tree with wood and lit a fire. But just as the flames began to lick her feet, she was miraculously saved by a flock of flying foxes. Hence "ua tatou magafetau soifua" is an expression of unspeakable joy and a greeting of great respect.

Unfortunately, we can experience linguistic isolation even from those who share our own tongue. The studies my students and I have conducted on the ethnotaxonomy, or native botanical lexicon, of BYU freshmen indicate that there is not a single American ethnotaxonomy but rather a calico quilt of individual variants. That we all share a linguistic commons yet each inhabit our own parcel of this common ground is not a novel concept. That the same word can mean different things to different people is a discovery quickly made by most newlyweds. Psychologist George Kelley writes that a psychotherapist's primary task is to learn the idiosyncratic language of her client. Our willingness to learn the usage of others can add much richness to our lives as well as assisting us to love and help those around us.

If you believe, as I do, that Joyce's *Portrait of the Artist as a Young Man* is the most exquisite document written in the English language, then you will perhaps agree that his allegory of the fall and resurrection of mankind, *Finnigan's Wake,* is the most formidable. Yet even though *Finnigan's Wake* looms as a literary Everest, it yields its treasure as deep insights into the human condition if the requisite tools are acquired: an understanding of Irish history and geography; a smattering of Gaelic, Latin, and Greek; and a firm knowledge of Shakespeare. In short, you must for a moment become James Joyce. Yet what richness awaits you if you make the attempt! Please visualize with me Joyce's description of Shem the Penman, a writer who writes upon his own body a masterpiece that no one can decipher. At the beginning of this passage Joyce announces that Shem is autobiographical when he tells us that

> Shem is short for Shemus as Jeb is joky for Jacob. A few toughnecks are still getatable who pretend that aboriginally he was of respectable stemming (he was an outlex between the lines of Raganor Blaubarb and Horrild Hairwire and an inlaw to Capt. the Hon. and Rev. Mr Bbyrdwood de Trop Blogg was among his most distant connections) but every honest to goodness man in the land of the space of today knows that his back life will not stand being written about in black and white. Putting truth and untruth together a shot may be made at what this hybrid actually was like to look at.
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> Shem's bodily getup, it seems, included an adze of a skull, an eight of a larkseye, the whoel of a nose, one numb arm up a sleeve, fortytwo hairs off his uncrown, eighteen to his mock lip, a trio of barbels from his megageg chin (sowman's son), the wrong shoulder higher than the right, all ears, an artificial tongue with a natural curl, not a foot to stand on, a handful of thumbs, a blind stomach, a deaf heart, a loose liver, two fifths of two buttocks, one gleetsteen avoirdupoider for him, a manroot of all evil, a salmonkelt's thinskin, eelsblood in his cold toes, a bladder tristended.[1]

The description "a trio of barbels from his megageg chin" becomes clear when we realize that barbels are the hairs hanging from the mouths of some fishes and "megageg" is the noise that goats make, according to Joyce's novel *Ulysses*. Hence if you could imagine a face with a few catfish whiskers hanging from a goat-like chin, you would have an idea of how Joyce viewed his own chin.

I offer this as a general principle: if you wish to understand *Finnigan's Wake* you must become, albeit for a short moment, James Joyce; if you wish to understand a kava speech, you must assume the air of a Samoan chief; if you wish to understand the nocturnal chirpings of the geckos, you must see the world as they do; similarly if you wish to understand the silent message that beckons a pollinator to a flower, you must for a moment view the world as a pollinator. To emphasize this point, I have taken to wearing a bee suit to class, complete with antennas and stinger, when lecturing on pollination. Although this artifice succeeds in arousing some interest among my Bio 100 students, it has not been without personal sacrifice. Once when slipping so attired through Harvard Yard on way to lecture, I had the misfortune of running into several respected professors serving on my doctoral committee. Without breaking stride, they solemnly greeted me and continued on their way, leaving me to ponder whether their opinion of my academic promise was so low as to see nothing unusual in their prodigy having metamorphosed into a social insect.

The general principle I have elucidated can help us to transcend even formidable linguistic barriers, particularly since a large portion of human communication is nonverbal. The number of different unspoken signals in humans is greater than one hundred, and if we add various wordless noises the number rises to 150 or more. This exceeds by a factor of three the number of signals of most other mammals and birds and is

even greater than the repertoire of other primates. Human facial musculature is exquisitely adapted to expressing a variety of emotions. When we add to facial expressions various hand gestures, a wide variety of messages can be conveyed. However, as many missionaries have discovered, even some of these nonverbal signals are not common to all cultures. Enough are shared, though, that essential messages of respect, love, and peace can be communicated between most peoples regardless of linguistic and cultural barriers.

Unfortunately such implicit understandings break down when we attempt to interpret animal communications. The divine injunction to Isaiah, "Hear ye indeed, but understand not. . . . Make the heart of this people fat, and make their ears heavy" (Isa. 6:9–10), had partial fulfillment in Francis of Assisi, who interpreted bird songs as prayers to God. Modern analysis indicates such anthropomorphic, albeit inspiring, interpretations to be wrong. Most bird vocalizations appear to be strident territorial claims or bald threats of hostility mingled with infrequent lustful wooing of potential mates form nearby trees, thus differing little in content from much current political rhetoric or many popular songs.

Yet many animal vocalizations have a mournful, appealing quality that causes stirrings with us. For example, the vocalizations of whales and other marine mammals have been used to great effect in recent works by composers such as Phillip Glass and Paul Winter. Unfortunately, their songs are imperiled because of our failure to recognize whales, until relatively recently, as something more than sources of meat and oil. As a result, we have brought these marvelous, gentle creatures to the very brink of extinction. The tragedy is that we may not only lose the message of their songs, but the message of their genes as well. I suspect that our wanton extinction of species is something that future generations will be least likely to forgive us. Indiscriminate logging in Third World countries results in a permanent loss each day of an area of tropical rain forest the size of Rhode Island, together with plant and animal species of untold value. Each day we destroy massive genetic libraries, not because we disagree with the messages they contain, but because we do not even know that the messages exist at all.

The handful of us who study tropical rain forests experience much the same despair as the scholars who witnessed the burning of the half-million-volume library at Alexandria in 300 A.D. We know that at best we can save only a volume or two from the flames, so we spend most of our time racing through smoke-filled aisles reading a few pages here and there, realizing that we will soon be denied access to the library forever, permanently incommunicado. It is a very weighty responsibility we carry, for we know that all that will ever be known of this great library, all that will remain of the splendor of the numerous messages it contains,

will be our accounts of the few pages we were able to read before it perished from the earth.

For the moment, though, we can delight in music from both whales and humans, but we realize that compared to many animals the capabilities of our sensory organs are severely restricted. For example, even though light is a continuous spectrum, the interaction of our brains and retinas cause us to perceive it as discontinuous. Thus a wide variety of human languages and cultures distinguish the same pseudochunks of this continuous spectrum: red, yellow, green, and blue. Beyond this narrow range, the light is invisible to us. Glorious images in the ultraviolet and infrared are encountered daily, yet we pass by them unseeing.

This limitation is not shared by all organisms, however. Bees and some butterflies see in the ultraviolet. For example, to our eyes the male and female form of the *Colias* butterfly, a common species in Utah Valley, appear identical. If we could see, however, as they can, in the ultraviolet, we would note a distinct difference: the male absorbs ultraviolet light and appears dark, while the female has round patches on the wing that dazzlingly reflect ultraviolet light. The acuity of bee eyes to ultraviolet light is utilized by flowers that depend upon insects for pollination. For example, if we could see a common buttercup in the ultraviolet, it would appear as a luminescent halo in a black sea of vegetation. Some flowers even have ultraviolet landing strips and lines that point to the nectaries. Not all pollinators are insects, of course. Since birds cannot see in the ultraviolet, but see exceptionally well in the red, most bird flowers are red. Bats, such as the Samoan flying fox, prefer pale-colored flowers with pungent musky odors. Even flies can serve as pollinators. Some flowers such as *Aristolochia* in South America are colored and scented much like rotting meat. These signals are deceitful in more than one sense, however, as *Aristolochia* offers neither meat nor nectar to the flies. It offers instead a prison chamber, from which escape is barred by downward pointing hairs. The flies futilely clamber about, inadvertently dusting themselves with pollen, until twenty-four hours later they are released through an opening, only to become similarly duped by a neighboring flower.

The motive force behind pollination is the fact that plants are immobile and thus must enlist other forces to carry their genetic messages encapsulated in pollen grains from flower to flower. In this sense, the information contained as sequences of nucleotide base pairs of DNA is written in perhaps the most universal and essential language on this planet. It also is the most concise. Next time you pick up a clump of dirt from your garden, consider, as E. O. Wilson once pointed out to me, that you hold in your hand enough genetic information to fill all volumes of the last fifteen editions of the *Encyclopaedia Britannica* if each

nucleotide were represented by a single letter. Messages written in this genetic script are passed from generation to generation, containing all necessary information for protein synthesis and hence the creation of life itself. The melding and mixing of different threads in this genetic tapestry through the generations determine to a large degree our own individuality and the individuality of all organisms. And so we should not be surprised by the exquisite elaboration of all forms of communication dealing with reproduction.

For example, in the bond-forming ceremony of the crested grebe, the male and female, in a beautifully symbolic gesture, solemnly exchange water weeds of the type they use to build their nest. Such beauty in courtship signals is revealed even at the cellular level, as can be seen in the search of a sphere cell of the fungal genus *Allomyces* for an egg to fertilize. The male gamete is unaware of the location of the egg. Even though its motion is limited to just two behaviors, an arcing glide and a sixty-degree turn with some variance, a highly efficient search strategy emerges. Ordinarily the glide and turn are combined to produce roughly hexagonal patterns, a very efficient way of searching a large area quickly. The egg assists the search, however, by releasing a chemical attractant. Once the male gamete crosses the threshold boundary and detects this chemoattractant, it quickly ceases the turn behavior and uses the arc glide to spiral in towards the egg. When it reaches the area of high chemoattractant concentration, the arc is turned off, and a series of jerking turns are initiated until the egg is encountered and fertilized.

Chemical communication is not limited to unicellular organisms. *Pogonomyrmex,* a genus of harvester ants common to our valley, can communicate more than nine categories of messages through the release of different chemicals from various glands. For example, after finding a new food source, a harvester ant will drag its abdomen, secreting a trail pheromone as it returns to its nest. This scent trail lasts for only about a minute, but it is quickly followed by other ants who use their antennae to weave in and out of the scent tunnel. Yet even in so pristine a system, deception can occur. The beetle *Atemeles pubicollis,* when challenged by an approaching ant, releases an appeasement pheromone that in essence says "I'm an ant. Please go to my abdomen for another message." Instantly complying, the ant proceeds to the beetle's abdomen where another chemical is released that signifies "I'm a small lost ant larva. Please carry me home to the nursery." The ant grasps the beetle with its mandibles and carries it past the sentries back to the nest and deposits it in the larval galleries. What I have neglected to tell you about this otherwise charming story of interspecies communication and cooperation is that the beetle *Atemeles pubicollis* makes its living by eating live ant larvae. It is as though you met a huge crustacean, invited it home, and showed it every courtesy while it devoured your children.

Although deceit is possible in many forms of communication, there is one sort of communication where it does not occur. We are told repeatedly throughout the scriptures that God cannot lie (Enos 1:6; Ether 3:12). I take considerable comfort in worshipping a God who cannot lie and in belonging to a church that requires me to believe only things that are true. Yet when we consider the differences between our feeble minds and that of God, we are overwhelmed by the vastness of the gulf. It is indeed a remarkable demonstration of his love when he speaks to us in a way we can understand. As he declares in his preface to the Doctrine and Covenants, "these commandments are of me, and were given unto my servants in their weakness, after the manner of their language, that they might come to understanding" (D&C 1:24). As his prayer before the Nephites demonstrates, he can use even our own languages in a manner to strain the limits of mortal comprehension (3 Ne. 19:31–32), yet consistently he chooses to speak to us in great plainness (1 Ne. 13:29; Jacob 2:11), reasoning with us "even as a man reasoneth one with another" (D&C 50:11; see also v. 12).

In fact the general principle I mentioned at the beginning of this essay, that to truly communicate we must understand each other's point of view, is best embodied by Christ. Even though he is the greatest intelligence in the cosmos, he can still communicate with us in our lowly state because he understands our problems, our infirmities, and our miseries. This is what Nephi calls the condescension of God, for though he was a God, architect and executor of the universe, Christ took upon himself mortal form, suffering, as Alma tells us, "pains and afflictions . . . of every kind . . . that his bowels may be filled with mercy, according to the flesh, that he may know according to the flesh how to succor his people according to their infirmities" (Alma 7:11–12). The autobiographical account of Gethsemane that appears in the nineteenth section of the Doctrine and Covenants is remarkable not only in source and subject matter, but also because of the explicit attempt it represents to help us understand Christ's point of view. Is it any wonder that the messages and symbols he gives appeal so mightily to our souls? "Greater love hath no man than this, that a man lay down his life for his friends" (John 15:13) is a truism in all cultures and throughout all time. Yet frequently we willfully ignore his love. Nephi's rebuke to his brothers applies all too frequently to us: "Ye are swift to do iniquity but slow to remember the Lord your God. Ye have . . . heard his voice from time to time; and he hath spoken unto you in a still small voice, but ye were past feeling, that ye could not feel his words" (1 Ne. 17:45). When we turn our back to the light, we should not blame God because our face is in the shadow.

Nevertheless, he loves us and attempts through nearly every noncoercive channel possible to make us aware of his love and concern

for us. Perhaps one of the most universal of all human customs is the sharing of food to indicate love and respect. Indeed one of the greatest tokens of love one can receive in any culture is to be fed, to be adopted by a family and receive that family name as one's own. Each Sabbath, I am fed from the table of Christ and am adopted as his child by taking upon myself his name. I can think of no more moving and universal symbol that Jesus could use to tell us of his love. As tossing a stone into a still pond causes waves to resonate against the shore, so that single gesture of the Man of Galilee two thousand years ago continues to resonate against our consciousness and very souls. I am grateful beyond measure each week as I partake of the sacrament because to me it is Jesus' way of telling me that he loves me. Perhaps this message of the Creator's love is the greatest message that can or ever will be expressed. To stare into the heavens and realize that the ultimate power and ultimate message of the cosmos is love is a profoundly humbling experience.

Therefore at this university, more than any other in the world, we must love each other and reach out to those within and without who are alone and devoid of hope. The form of communication to be used has been precisely specified. We are to express the message in the language of the hearer: "Every man shall hear the fullness of the gospel in his own tongue, and in his own language, through those who are ordained unto this power" (D&C 90:11). It is therefore incumbent upon each of us to use every means at our disposal to reach out and share Christ's wonderful message of love with all of the millions of people in the world, all of those who still remain . . . incommunicado.

NOTE

[1]James Joyce, *Finnegan's Wake* (New York: Viking, 1939), 169.