Theological Perspectives

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GOD AS A COMMUNICATIVE SYSTEM *SUI GENERIS*: BEYOND THE PSYCHIC, SOCIAL, PROCESS MODELS OF THE TRINITY

by Young Bin Moon

With an aim to develop a public theology for an age of information media (or media theology), this article proposes a new God-concept: God is a communicative system *sui generis* that autopoietically processes meaning/information in the supratemporal realm via perfect divine media ad intra (Word/Spirit). For this task, Niklas Luhmann's systems theory is critically appropriated in dialogue with theology. First, my working postmetaphysical/epistemological stance is articulated as realistic operational constructivism and functionalism. Second, a series of arguments are advanced to substantiate the thesis: (1) God is an observing system sui generis; (2) self-referential communication is divine operation; (3) unsurpassable complexity is divine mystery; (4) supratemporal autopoiesis of meaning is divine processing; (5) agape is the symbolic medium of divine communication. Third, this communicative model of God is developed into a trinitarian theology, with a claim that this model offers a viable alternative beyond the standard (psychic, social, process) models. Finally, some implications of this model are explored for constructive theology (conceiving creation as divine mediatization) and for scienceand-religion in terms of derivative models: (1) God as a living system sui generis and (2) God as a meaning system sui generis.

Keywords: biology; communication; communicative model; creation; divine media; God; information; life; Niklas Luhmann; meaning; media; public theology; religious studies; science-and-religion; systems theory; Trinity

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A revolutionary sociocultural transformation is in progress on a global scale. As sociologist Manuel Castells forcefully argued in his monumental trilogy *The Information Age* (Castells 1996–1998), "informationalization" has been underway, transforming the globe into "the network society" (Castells 2000, chs. 1, 5), in which "the power of flows takes precedence over the flows of power" (p. 500). The principal carriers of this transformation are a variety of information media (*info-media*) that have been proliferating. This new era therefore may be called *an age of info-media*.

This revolutionary transformation poses a daunting challenge for theology, demanding a new way of thinking about doctrines as well as theological discourse itself. There have been pioneering studies rethinking religion vis-à-vis media (de Vries and Weber 2001; Hoover and Lundby 1997). Yet, as I see it, to date, a full-scale public theology tailored explicitly for an age of info-media—which we may call *info-media theology* or *media theology*—seems quite deficient, except for my own pioneering efforts (Moon 2002; 2006; 2010). Indeed, it is odd that in recent science-and-religion discourse considerable attention has been allotted to information but not to the crucial link of information with media, that is, *info-media*, which is of fundamental importance both in science and in religion/theology. I take up this pressing challenge in this article, focusing on the central question: How can God-talk be rendered relevant for an age of info-media?

The thesis I advance is that God is a communicative system sui generis that autopoietically processes meaning/information in the supratemporal realm via perfect divine media (Word/Spirit). I demonstrate the potency and versatility of this idea in terms of the following auxiliary concepts appropriate in varied contexts: (1) God as a living system sui generis (apposite for biology-and-religion contexts) and (2) God as a meaning system sui generis (apposite for inclusive science-and-religion and religious studies contexts). For this task, I constructively and critically appropriate the highly acclaimed general systems-theoretical framework of German sociologist Niklas Luhmann. He put forward a novel sociological paradigm that is highly pertinent to our info-media era with its central claim that society is the communicative system that autopoietically processes meaning/information via diverse media/codes. Now, it is evident that my thesis intends a theological extension of this Luhmannian paradigm. In fact, Luhmann himself cued, here and there, such a theology of God. For instance: "A God who experiences everything and is accessible through communication but who does not belong to society is a singular exception that exactly copies the recursive totality of the societal system itself, a duplication that makes it possible to experience the world in a religious way" (Luhmann [1984] 1995, 409). He did not flesh out this theologically potent idea, however, leaving a task that remains to be constructively taken up here in dialogue with rich theological resources.

A POSTMETAPHYSICAL FRAMEWORK: AFTER/BEYOND/ CONTRA LUHMANN

God-talk cannot evade metaphysical and epistemological considerations. Is there divine reality? How can we know and describe mysterious divine reality? Metaphysical realism maintains that divine reality exists, independent of or interdependent with the world, whereas instrumentalism deems God merely a heuristic concept. Epistemological realism (of various sorts such as naive, critical, or limited realism), appealing to divine revelation, is confident about our ability to mirror—however fuzzy the mirroring might be—divine reality, but constructivism denies such confidence with its conviction that God-concepts can never be anything beyond our imaginative constructs contingent on sociocultural contexts.

Luhmann famously deconstructs the conventional metaphysical/epistemological frame, which is based on the conventional distinction of being/ nonbeing or being/knowing, in terms of his novel *postmetaphysical* scheme: All kinds of systems, whether organic, psychic, or social, are observing systems, and all operations of observations are real (Luhmann [1988] 2006). The systems diverge only in terms of their distinct forms (or mediums) of observation—life for organic systems, consciousness for psychic systems, communication for social systems (this is why social systems are also called communicative systems). The operations (via the medium of consciousness) of psychic systems or the operations (via communication) of social systems are real, just as the operations (via life) of organic systems are real. Our thinking or conversation is real just as our bodies are real: "knowing systems are real (empirical—that is, observable) systems in the real world" (Luhmann 2002, 136). This neocybernetics scheme shifts the conventional distinction of being/knowing or being/nonbeing into the central postmetaphysical question "Whose observation?" (Luhmann 1998, ch. 3; Hayles 1999, ch. 6) Luhmann, drawing on George Spencer-Brown's Boolean algebra (Spencer-Brown 1969; Baecker 1999), defines observation (or cognition) as an "operation that uses distinctions in order to designate something" (Luhmann 2002, 134). This formally extended and thus counterintuitive notion of observation is a fundamental heuristic apparatus in Luhmann's postmetaphysical framework. Any observation presupposes a prior distinction between inside (the observer) and outside. The inside is designated a system and the outside, environment (*Umwelt*), a distinction that is the fundamental guiding difference in the entire edifice of Luhmann's systems theory (Luhmann [1984] 1995, 6-10). In this framework, conventional distinctions such as being/nonbeing or being/knowing are replaced by the postmetaphysical distinction, system/environment.

By highlighting difference, plurality, and paradox, Luhmann effectively deconstructs the oppressive nuance of the term *system*, which usually is associated with the connotation of control, rendering his theory to fit squarely with our postmodern milieu (see Rasch and Wolfe 2000). Dirk

Baecker, a leading interpreter of Luhmann, perceptively notes, "Systems theory in line with Luhmann's intellectual spirit may well be read as an attempt to do away with any usual notion of system, the theory in a way being the deconstruction of its central term" (Baecker 2001, 61). He even writes that Luhmann "did not believe in systems. He used the notion of systems as methodical device to look at everything excluded by them" (p. 71). As such, the postmetaphysical notion system is employed for "a deontologization of reality" (Luhmann 2002, 132), which means that reality is seen no longer in terms of being/nonbeing but rather in terms of operations (of observation). It is precisely in this Luhmannian sense that I adopt the term postmetaphysical in this article. Luhmann never doubts (nondivine) reality, but he sees it in terms of realities of operations/observations. This Luhmannian stance I call postmetaphysical operational realism.

With this postmetaphysical schema at hand, Luhmann—innovatively adopting the systems biology (particularly the notion autopoiesis) of Humberto Maturana and Francisco Varela (1980)—robustly denies the possibility of a system's transparent accessibility to environmental reality beyond the boundary of its distinct operation. On this view, contra epistemological realism, environmental reality can never be mirrored but can only be constructed by the system's own self-closed operation. There is no way that we can extend our cognitive operations into our environment, but we are able to observe environment—not in spite of but only because of our own self-closed operations. Without operational closure, observation would be impossible. This epistemological stance is commonly labeled radical constructivism—constructivism in the sense that environmental reality is inaccessible, and thus it must be constructed in terms of a system's self-closed operation, and radical in the sense that observation is nonetheless possible, only because of the operational closure (Luhmann [1988] 2006, 242). Reality is thereby multiplied into countless constructed (or observed) realities via divergent systemic operations. Recall that the very operations of constructions (observations) are also realities. Because of countless systemic constructions that really exist, countless realities of systemic constructions also exist. Luhmann thus presents us with a radically polycontextual view of reality that comprises two kinds: realities of constructions and realities via constructions (or constructed realities) (Luhmann [1996] 2000, 76–94).

How is the Luhmannian stance applicable to the divine realm? Luhmann is somewhat ambiguous. Sometimes—for instance, when he says "God is the quintessential observer who created everything" (Luhmann 1998, 51)—he implies or at least entertains the idea that God is a distinct operational reality. But in most cases, particularly in his sociology of religion (Luhmann 1977; 2000), he consistently maintains a strictly instrumentalist view deeming God purely a concept, which nonetheless plays an important sociological function as "the contingency formula" (which is to manage contingency) for religion and ultimately for society as a whole.

Hence, it would be fair to conclude that he mostly brackets the operational reality of God while he nonetheless appears not to completely preclude its possibility. As a matter of fact, Luhmann has no other alternative as a sociologist, because sociology has no choice but to adopt this instrumentalist stance in order not to confuse or conflate its enterprise with theology. To borrow Luhmannian terms, sociology is without the "code" to observe divine reality, or it is "blind" to the divine realm.

Primarily as a theologian, however, I am free to move beyond Luhmann's sociological instrumentalist stance by upholding as a fundamental working theological hypothesis the operational reality of God: God is an observing system sui generis. I adopt this theological stance not dogmatically but only for a heuristic purpose to construct a God-concept, mainly but not solely with mainstream Christian tradition in mind. This theological undertaking certainly contradicts Luhmann's instrumentalist stance as disclosed in his sociology of religion. But it seems consistent with his postmetaphysical operational realism as disclosed in his *general* systems theory, which intends to be applicable to all kinds of systems. It is certainly not in the sense that Luhmann would endorse my theological undertaking but rather in the sense that the presupposition—that there is the divine system that is operationally real—stands formally in parallel with his fundamental systems-theoretical assumption that "there are systems" that are operationally real (Luhmann [1984] 1995, 12). As such, we need to carefully distinguish between Luhmann's *post*metaphysical stance maintained in his general systems theory and his instrumentalist/antimetaphysical (in regard to divine reality) stance maintained in his sociology of religion. Note the heuristic terminological distinction made here between postmetaphysical (focusing on operation/observation, not being) and antimetaphysical (denying or bracketing divine reality). In light of this elucidation, my theological undertaking is definitely not antimetaphysical (contra Luhmann) by affirming divine reality, but it is postmetaphysical (in line with Luhmann) in the sense of conceiving of divine reality in terms of operation/ observation and not in terms of being/substance.

My postmetaphysical endeavor thus can be seen as either a venturesome theological extension or a theological provocation (or irritation) of Luhmann's systems theory, depending on "Whose observation?" It is a theological extension if seen from the perspective that it adds one more kind of system, the divine system, to the four kinds (mechanic, organic, psychic, and social) addressed in his general systems theory. There is no reason to claim that my undertaking is unwarranted unless there is compelling evidence that precludes completely the possibility of divine reality. My undertaking is a theological provocation of Luhmann's theory if seen from the perspective that such an infiltration of nonempirical divine reality is intrinsically forbidden (and justly so) in the Luhmannian (empirical) sociology of religion. As noted, this is and ought to be the case for sociological discourse in

general, because it certainly goes beyond the sociological scope of inquiry. My undertaking ventures to step beyond Luhmann's sociological boundary to offer an observation, which sociology is unable to supply but theology is able to supply because of its unique code to observe divine reality. I also use Luhmann's sociological/systems-theoretical observation to illuminate theology, which has its own intrinsic blind spots. This interdisciplinary endeavor thus creates an interpenetrating space that facilitates mutually illuminating exchange between these complementary observations in its intent to develop a *theological systems theory* (see Green 1983, 30–31).

The postmetaphysical theological stance affirming operational divine reality by no means infers that the reality is transparently accessible to us. Divine reality is one thing; its accessibility is another. Extending Luhmann's radical constructivism, I hold that divine reality is accessible to us only as a constructed reality in terms of the observation (via the medium of communication) of the religious system. Such a construction of divine reality is nonetheless not arbitrary, but it arises as "an emergent reality that cannot be reduced to features already present in the object or in the subject" (Luhmann [1984] 1995, 486). Luhmann calls such an emergent reality eigenvalue (Luhmann et al. 2000, 112), a term commonly used in quantum physics to indicate the result of observing a quantum system. This Luhmannian scheme is applicable to the religious system's observation of divine reality: something (eigenvalue) does emerge through the interactions, via symbolic communication, between the religious system and the divine system—and that eigenvalue is pertinent to revelation (see Moon 2010, ch. 4). This view of revelation, which I hold beyond or contra Luhmann's view, comes close to what Avery Dulles calls symbolic mediation, a view championed by Paul Tillich (Dulles 1992; Tillich 1951, 106– 59, 238-41). This epistemological stance can be called constrained constructivism (Luhmann et al. 2000). This stance is applied to all biblical readings in this article—they should never be taken as epistemologically realistic or literal ones.

To summarize, my working metaphysical/epistemological stance combines postmetaphysical operational realism (that is, divine operation is real) and constrained constructivism (God-concepts are our imaginative constructs, yet constrained via the event of revelation). Simply, this stance can be called *realistic operational constructivism*.

Methodologically, in this article I consistently adopt the systems-theoretical framework that facilitates recursive feedback cross-fertilizations between Luhmann's theory and theological tradition in such a manner that the former supplies formal resources while the latter supplies material resources. Luhmann's genetic systems theory is specified for the particular theological issue at hand—that is, constructing a God-concept—by way of functional analysis, which Luhmann uses to extend natural scientific concepts into the social domain. Functional analysis proceeds by analyz-

ing generic features of functions commonly found in diverse systems and then respecifying the generic features for the specific system under investigation (Luhmann [1984] 1995, 3, 14–15, 52–54). In our case, his theory supplies genetic systemic features, which are extendable to divine reality, and theology supplies specific—including *sui generis*—features of the divine. Thus, I focus only on the functional aspects of divine reality in my entire investigation. In this sense, the methodology adopted here is consistently a functionalist one.

GOD AS A COMMUNICATIVE SYSTEM SUI GENERIS

God Is an Observing System Sui Generis. This is the fundamental working premise of my proposal. Luhmann cues a similar idea when he says "God is the quintessential observer who created everything, who continually re-creates (that is, maintains) everything in the form of the 'creatio continua,' who sees everything, and knows everything" (Luhmann 1998, 51). But this remark focuses only on God's other-observation (which implies creation), while my premise extends this idea to include God's self-observation as well, which means that God draws an eternal distinction of divine operation from others. Let us consider its implications.

First, it is inferred that God draws an eternal distinction of divine operation from nothingness. This view is a postmetaphysical reconceptualization of the traditional view that God's existence is necessary, as expressed in terms of "pure act of existence" (Thomas Aquinas) or "the finite power of resisting nonbeing" (Tillich). To distinguish divine operation, nothing is needed for God except for nothingness. What is meant by nothingness? Does this mean that divine operation is contingent on nothingness? By adopting Edmund Husserl's concept of horizon, Luhmann defines the "world" (Welt) not as the totality of all entities under heaven but as the undifferentiated ultimate horizon of (nondivine) possibilities, from which the (nondivine) system/environment distinctions are made (Luhmann [1984] 1995, 208). But the world in this Luhmannian sense has to be a penultimate concept if we move beyond Luhmann to include the divine realm in our consideration. In the divine realm, I suggest, the concept of nothingness can play the role that is functionally equivalent to that of the world. That is, nothingness signifies the undifferentiated *ultimate* horizon of possibilities within God, from which God makes an eternal distinction between divine operation and other virtual possibilities such as nonoperation (that is, nonbeing) or nondivine possibilities (that is, the world).² If we posit nothingness outside God, we immediately run into the perennial problem that God is contingent on nothingness; but if we posit nothingness inside God, the problem evaporates because nothingness, then, is an integral component of the divine system.³ According to systems-theoretical logic, any distinction requires the unity of the distinction, and in this formal sense the (primordial) God that includes nothingness is the unity

of the distinction of divine operation and other possibilities (nonoperation or the world). Thus, in this proposal, God may be formally contingent on nothingness for distinguishing divine operation, but this never means that God is actually contingent on nothingness because nothingness is within God and God's self-distinguishing operation from nothingness (and from other possibilities) is eternal with no beginning or end.

Second, the premise implies that God draws an eternal distinction of God's own *sui generis* kind of operation from other kinds. In this sense, divine operation is "wholly other."

Third, God's observation entails both self-observation and other-observation, and God's other-observation implies God's creation of other kinds of operations. The *virtual* operations of other kinds are strongly implied in God's observation. But the actual existence of the other kinds is not a necessary condition for God's observation, because it is entirely possible that God can distinguish God's own kind of operation from other kinds that are only virtually present in nothingness (the ultimate possibility space within God). Again, nothing is needed for God to distinguish divine operation, other than nothingness. In any case, creation turned the virtual distinction into an actual one. It is out of the infinite sea of possibilities (that is, nothingness) that God distinguished divine operation from the world (which is, to recall, the penultimate possibility space that makes possible the operations of the world systems). Likewise, temporality is not required for God's observation because prior to the creation of time there was only a virtual distinction between supratemporal divine operation and temporal nondivine operations, and the virtual distinction became an actual one through creation of the world (and time). Creation of the world is nonetheless not a necessary condition for God's observation but is only implied, albeit strongly.

Self-referential Communication is Divine Operation. What, then, is God's distinct form of operation? Because God's essence is certainly beyond our knowledge despite revelation, it would be presumptuous to claim any realistic knowledge about divine operation. Still, it is possible to approach this question from the standpoint of realistic operational constructivism and functionalism that I adopt here, an epistemological stance that I consistently apply to all biblical readings in this article. Thus they should never be taken as realistic or literal. Seen this way, the best inference that can be drawn from long-standing biblical/theological tradition is that the distinct form of divine operation is communication (intimately tied with meaning).

Three observations suffice to demonstrate this. First, diverse biblical accounts testify that God speaks. God speaks to/about nature ("Let there be light," Genesis 1:3 NIV), to/about people ("Let us make man in our image," Genesis 1:26 NIV), and to/about Godself ("Let us . . . ," Genesis

1:26 NIV; "I am who I am," Exodus 3:14 NIV). These accounts imply that divine operation is primarily utterance. Second, divine operation is inseparable from divine utterance. Witness the creation narrative, the Exodus narrative, the prophetic tradition, the Gospels, and the events of Pentecost. Karl Barth says, "The Word of God does not need to be supplemented by an act. The Word of God is itself the act of God" ([1932] 1975, 143). If this view is taken seriously, it is not that God operates through utterance but rather that divine operation is utterance. Finally, the strongest biblical claim comes from the prologue of the Gospel of John: "In the beginning was the Word, and Word was with God, and the Word was God" (John 1:1 NIV). This passage furnishes the most telling evidence demonstrating that God is communication.

But the claim that communication is the distinct form of divine operation immediately runs into a serious problem. How can one say that communication is a uniquely divine operation? The considerations hitherto seem to have established an operational continuity rather than discontinuity between the divine and the human—although this point is nonetheless important to establish the ground of the possibility of revelation. But this is only half of the story. There is an operational continuity with respect to the *reality* of communication but a sharp discontinuity with respect to the *way* of communication. God's *manner* of communication is *sui generis*. As Barth puts it, "Certainly [the Word of God] is . . . *sui generis*. God's speech is different from all other speech" ([1932] 1975, 164).

My theological construction sustains a subtle balance between divine mystery and the authenticity of revelation. On the one hand, the authenticity of revelation is highlighted in terms of communication and divine media *ad intra* (Word/Son and Spirit). On the other hand, divine mystery is underscored in terms of the *sui generis* qualities of divine communication, such as unsurpassable complexity, noncontingent, supratemporal autopoiesis, and divine media *ad intra*. In this proposal, the divine media *ad intra* work for either side: Son/Word and Spirit make the divine communicative system perfectly self-closed and also render divine communication understandable for the human, thus rendering revelation possible and authentic via mysterious *medium coupling* with creaturely media, which function as divine media *ad extra*. It is the divine media *ad intra* that facilitate the divine system to be self-referential.

Self-referential systems are "systems that have the ability to establish relations with themselves and to differentiate these relations from relations with their environment" (Luhmann [1984] 1995, 13). The self-referential system is operationally closed yet structurally (thematically, in case of the communicative system) open to environment. In case of the divine system, it is operationally closed in terms of divine media *ad intra* yet structurally/thematically open in terms of medium coupling. *Medium coupling* —which reconfigures the term *structural coupling* coined by Maturana and Varela

(1980, xx–xxi; 1998, 75) to denote congruent intersystemic interactions (Luhmann [1984] 1995, 220)—signifies a fusion between different kinds of mediums, a phenomenon that is common in media, particularly the new media. Multimedia fuse visual, audio, and text media. Media theorists Jay Bolter and Richard Grusin (1999) cogently argue that all media, not only new media, are in the business of *remediation*—"a medium is that which remediates" (p. 98)—which obviously implies medium coupling.

Unsurpassable Complexity/Meaning is Divine Mystery. In Luhmann's systems theory, complexity denotes the pressure to select a system state in the presence of multiple possibilities (Luhmann [1984] 1995, 23–28). And such "a surplus of references to other possibilities of experience and action" is called *meaning* (Sinn) (p. 60)—which is pertinent to social/communicative systems and psychic systems; for this reason, they are put together in terms of meaning systems. More precisely, meaning—a notion borrowed from Husserl's phenomenology—denotes "the unity of actualization and virtualization, of re-actualization and re-virtualization, as self-propelling process" (p. 66). Our actual experience, whether thinking or communication, continuously arises out of a continuum of potentially possible experiences through an ongoing process of sorting them out, selecting one, and negating the rest. Our experience therefore is possible only because of the unity of the difference of the actual experience from the reservoir of potentially possible experiences; this unity of the difference of actual/virtual experience signifies meaning. Meaning functions as "the universal form" (Universalform) for ordering experience (Luhmann 1977, 21; 1990, 43).

Because God is infinite in goodness, knowledge, and power, there must be an infinite horizon of communicative possibilities or infinite (or inexhaustible) meaning within the divine system. This is uniquely the case for the divine system, not for nondivine systems. In short, God is infinitely complex; this reconceptualizes divine mystery. Because complexity implies selectivity, God has infinite selectivity; this reconceptualizes divine freedom. What is meant by *infinity* here? Wolfhart Pannenberg offers a cogent insight: "The Infinite that is merely a negation of the finite is not yet truly seen as the Infinite (as Hegel showed), for it is defined by delimitation from something else, i.e., the finite. . . . The Infinite is truly infinite only when it transcends its own antithesis to the finite" (Pannenberg [1988] 1991, 399). Similarly, Philip Clayton argues: "If the idea of an infinite is granted, then by its nature it will be prior to the idea of the finite. . . . Infinity is not understood by negating a boundary or limit; i.e., negating the finite; instead, all limitation first implies a negation of the infinite. Furthermore, it could perhaps be shown that the infinite is the condition of the possibility of the existence of finite things" (Clayton 1997, 125). Accordingly, infinite complexity is to be conceived not as an antithesis to finite complexity but rather as the Ground of Complexity, a term that reconfigures the Ground of Being (Tillich). And the divine system can be conceived as the Ground of Systems or the Ground of Communicative/Meaning Systems. Seen this way, human communication ultimately is grounded in divine communication—and this can be what is meant by the "image of God" (Moon 2010, ch. 4).

Conceived thus as the Ground of Systems, the divine system is, to reconfigure Anselm's classic concept of God, nothing more complex than that is conceivable (Albright 2000). Divine complexity is unsurpassable. Charles Hartshorne suggests that God's properties are unsurpassable by nondivine beings but surpassable only by themselves (Hartshorne 1970, 227f.). This insight can be applied to divine complexity: Divine complexity is surpassable only by itself. It is in terms of unsurpassable complexity that the divine system is formally singled out from the world systems. Note that such a distinction is based on a qualitative, not quantitative, difference in the degree of complexity. To say "God is the most complex" is one thing, and to say "God is unsurpassably complex" is another. The former places divine complexity simply at the top on the scale of complexity, whereas the latter deems divine complexity *sui generis*. The former implies contingency, the latter necessity. In the former statement, the contingent possibility that God happens to be the most complex is not ruled out; this possibility is completely ruled out in the latter because it entails that God must be the most complex. Precisely this necessity is what makes unsurpassable divine complexity qualitatively different from other complexities.

Supratemporal Autopoiesis of Meaning is Divine Processing. The infinite complexity of the divine system—that which signifies its inexhaustible meaning or communicative possibilities—entails its eternal autopoietic processes. For Luhmann, the term autopoiesis for a communicative system refers to its ongoing recursive self-production of communicative events within itself, and only a complex system can be autopoietic because of its capacity to continually process its internal possibilities. Because there are inexhaustible communicative possibilities within the divine system, and because it is perfectly self-referential in terms of its unique divine media ad intra, the divine system is perfectly autopoietic. Indeed, the inexhaustible horizon of communicative possibilities found in the divine system means that it is completely self-sufficient for its eternal self-production of communicative events. In this sense, divine communicative processing is noncontingent and thus clearly distinct from the autopoietic processing of the world systems, which is always contingent on their environment.

Besides the noncontingent nature of divine processing, there is another sense in which it is *sui generis*—its *supratemporality*. A simple thought experiment may illuminate the *sui generis* nature of supratemporal divine processing, as it is difficult to intuit such a concept because of the time-boundedness of our existence and thinking. Imagine a perfect supercomputer equipped with infinite power capable of processing infinite bits of

information literally in no time—that is, instantly. Precisely because of this infinite power, and because the processing is completed instantly, temporality is functionally nonexistent for this supercomputer when processing information. Its processing can be seen as beyond time while also in time. It is at the instant that its processing is at once in progress and already completed. Infinite potentiality and full actuality coexist at this instant.

The divine supratemporal processing can be seen as functionally equivalent to the instant processing of this supercomputer. God has the infinite power to process inexhaustible communicative possibilities instantly. On the one hand, it is because of this infinite processing power that God has already processed all the communicative possibilities and thus has a perfect understanding of Godself and the world. In this sense God is fully actual. On the other hand, at the same instant God is still processing the infinite possibilities, and in this sense God is infinitely potential. In this manner, infinite divine potentiality and full divine actuality coexist.

From this functionalist standpoint, the instant processing can be deemed functionally equivalent to the supratemporal processing. In the supratemporal realm, infinite divine potentiality and full divine actuality coexist at once without conflict. This claim correlates with a number of theologians who approach this perennial problem from varied angles (Barth 1957, 157; Tillich 1951, 246–52; Pannenberg [1988] 1991, 401–10; Ward 1996, 190–91, 268–69). To cite just one, "all potentiality is included in [God's] actuality" (Barth 1957, 157).

Agape is the Symbolic Medium of Divine Communication. The claim that the divine system is marked by infinite complexity or infinite selectivity should not be taken to imply that divine communication is arbitrary. Such a conception would contradict biblical witnesses that clearly demonstrate that consistent themes such as love, mercy, justice, peace, and liberation, among others, occur in divine communication (although not without some irreconcilable accounts therein). This consistency carries supreme importance in that it supports the authenticity of revelation, warrants coherent constructions of Christian doctrines, and signifies God's trustworthiness—which is what ultimately grounds Christian faith.

Two kinds of complexity are distinguished in systems theory: unstructured (complexity without constraints) and structured (complexity with constraints) (Luhmann [1984] 1995, 282–94). For Luhmann, the term *structure* in a complex system denotes intrasystemic constraints that condition selectivity, a function that is crucial for information processing; and the communicative system is structured by thematic expectations (p. 196). Without structure, a system cannot process information, which denotes "a selection from a (known or unknown) repertoire of possibilities" (p. 140). Symbolic media play a decisive role in conditioning the structure (thematic expectations) of a communicative system (p. 148). In this light, an

important question is posed: What is the best candidate for the primary symbolic medium of the divine communicative system? It is evident that the Bible displays diverse symbolic media that are employed in connection with divine communication: Love, grace, justice, righteousness, wisdom, life, liberation, and truth come to mind. These diverse symbolic media are needed for the divine system to establish intricate medium couplings with diverse creaturely media (see Gregersen 1998), which make possible authentic divine manifestations through the world systems. However, long-standing theological tradition has held that the most dominant theme of divine communication is *agape*, particularly because this theme is epitomized by the incarnation and the cross, and it is most poignantly attested in the Johannine epistle: "God is love" (1 John 4:8, 16).

Interestingly, Luhmann highlights this same point: "Within a tradition that continues to this day, God's manner of observation is interpreted as love. 'To see you is to love' ('Videre tuum est amore')" (Luhmann 1998, 54). Here "God's manner of observation" can be taken to denote the primary symbolic medium of divine communication, because God's observation is processed, as argued, in the form of communication. In his Love as Passion ([1982] 1998) Luhmann develops a systems-theoretical conception of love. His original contribution lies in conceiving of love not as a feeling but as a symbolic medium of intimate relationships. Through the medium of love, participants mutually experience, participate in, find meaning in, and possibly transform each other's world, but they do so without conforming (pp. 172–76). As the code of interpenetration of intimate relationships, love is based on the "unity of difference" of the individuals (p. 177). Luhmann's idea of love as the code or medium of intimate relationships is applicable to the most perfectly intimate of all relationships, the intratrinitarian relationship: God is a perfect system of interpenetration through the symbolic medium of love. Luhmann's concept of love resonates with Barth's theological view of intradivine love because both views stress the unity of difference (Barth [1932] 1975, 483).

Agape, conceived thus as the primary medium of divine communication, not only conditions divine communication but also opens up its new possibilities autopoietically. Our experience readily shows that love has the power to generate endless communications. Lovers cannot stop communicating. This is infinitely true for agape, which has the infinite power to generate inexhaustible communicative possibilities and meaning within the divine system. It is in this sense that agape is the material source of the infinite complexity of divine communication and its eternal autopoiesis (see Albright 2000). Agape thus plays a paradoxical role: It conditions the structure of the divine system while at the same time it complexifies the system. That is, agape sustains the creative tension of constraining and complexifying the divine communicative system.

THE COMMUNICATIVE MODEL OF THE TRINITY: BEYOND THE IMPASSE

Communication, for Luhmann, is the coordinated threefold distinction of (1) information/noise, (2) medium/other mediums, and (3) information/ medium (Luhmann [1984] 1995, 147-54; 2002, ch. 7). Understanding comes with the information/medium distinction-making. An illustration can help us grasp this abstract idea more clearly. Consider a romantic situation: John sends a rose to Mary to express his love. In this communicative situation, first, John needs to sort out his feelings for Mary, which corresponds to making a distinction of information (love) from noise (other feelings). Next, he needs to select a way (a rose) of expressing his love from many possible ways (verbal expressions, kiss, and so forth). John's choice corresponds to distinguishing a medium of communication, and such a transformation of information (love) into a medium (rose) is called *encod*ing. Finally, in order for the communication to be successful, Mary needs to understand the rose as an expression of love by distinguishing the information (love) from the medium (rose). Such a retrieval of information from its medium is called *decoding*.

From a functionalist standpoint, this view of communication is extendable to divine communication. It is plausible to suppose that the three distinctions correspond respectively to the distinct operations of the traditional trinitarian symbols: The Father selects (distinguishes) divine information vis-à-vis noise; the Son selects a proper medium to encode the divine information; and the Spirit selects and retrieves (decodes) the divine information vis-à-vis the medium. Note that these traditional trinitarian symbols are used here only for the sake of convenience—they can be replaced by other symbols, including feminist ones. The Father is the Sender of divine information, the Son is the Encoder, and the Spirit is the Decoder. The Father is the Receiver as well. Such distinguishing operations are called observations in Luhmann's framework, so we may say that the three distinctive kinds of intrasystemic observations are continuously operative in processing divine communication, corresponding to the three trinitarian symbols. Their operations, specified as such in terms of specific kinds of observations, are functionally differentiated, but they remain perfectly coordinated within the divine system to process its autopoietic communication. Accordingly, there are three intrasystemic observers (intra-observers) within the divine system, but they are one in that they are required to work together to make possible the unity of divine self-referential observation. That is, the functional differentiation of the three observers presupposes—and is grounded in—the unity of divine operation, that is, divine communication. This view finds limited affinities with Barth's view of the Trinity in terms of the Revealer (Father), the Revealed (Son), and the Revealing (Spirit) (Barth [1932] 1975, §8).5

As such, this proposal deems the three divine symbols to be functionally differentiated and yet united to make the process of divine communication possible. The operative theological principle here is *opera ad extra non divisa sunt* (external operation is not divided): the differentiation of the divine system presupposes its unity of difference. Also, this proposal incorporates another unity of difference between *ad intra* and *ad extra*.

This conception of the Trinity in terms of the Sender/Receiver, the Encoder, and the Decoder in divine communication superbly correlates with substantial biblical data, offering a fresh theological/biblical interpretive paradigm apposite for our info-media age. The traditional conception of Christ as both the Son and the incarnate Word (as poignantly depicted in the prologue of the Gospel of John) furnishes the paradigmatic evidence that warrants the interpretation of the Son as the Encoder of divine communication, both *ad intra* and *ad extra*. This is evident in Jesus' self-descriptions found in all of the Gospels. For example: "Anyone who has seen me has seen the Father" (John 14:9 NIV); "no one knows the Father except the Son" (Matthew 11:27 NIV). Paul's understanding of Christ as the perfect "image of God" lends further support for our conception of Christ as the perfectly encoded encoder (see Watson 1997, ch. 7).

As for the conception of the Spirit as the Decoder, consider John's depiction of the Spirit as the Paraclete in John 14–16 and Luke's narrative of the Pentecost in Acts 2. These texts make it clear that God sent the Spirit to guide and teach the church to understand the Word. Such a role clearly signifies the Spirit's decoding operation. The texts depict the Spirit as the one who indwells and empowers the church, but these operations are inseparable from the Spirit's decoding operation of the Word as the Spirit of Christ and the Spirit of God. In this light, the Pauline understanding of the church as the "body of Christ" or the imitatio Christi can be interpreted to mean that the church is commissioned to be the encoder of Christ, the one who is the ultimate encoder of God; in short, the church is the second-order encoder of God. These passages, when considered in light of the creation narrative, show the consistent pattern in which the Spirit is the medium decoding divine utterance (Word)—the encoded divine communication—for the world systems (Genesis 1:2). Conversely, God's observation of the world systems is processed through the Spirit's decoding of the world systems and the Word's encoding of the decoded world systems into divine "language."

To put schematically the recursive feedback interaction between God and the world systems through the info-mediation of divine media *ad in-tra* (Son/Spirit):

 $Father \longleftrightarrow Son/Word(Encoder) \longleftrightarrow Spirit(Decoder) \longleftrightarrow World/Human$

This schematic of the economic Trinity corresponds to that of the immanent Trinity as follows:

Father(Sender)→Son(Encoder)→Spirit(Decoder)→Father(Receiver/Sender)→Son(Encoder)→Spirit(Decoder)→Father→

The arrows show the flow of information/meaning in the divine system, highlighting a recursive feedback mechanism at work. Such a flow of divine information takes place in a supratemporal realm, which guarantees God's perfect understanding of Godself and the world systems. In this feedback communicative system, the Father functions as the selector of divine information, sends it via the Son (Encoder) and the Spirit (Decoder), and receives it back through them. It is via the Son's encoding and the Spirit's decoding operations that the divine information selected and sent by the Father is processed perfectly and autopoietically in the divine communicative system. The Son and the Spirit function as the divine media *ad intra*, and they work together to guarantee the Father's perfect understanding of divine information.

The Son's function as the Encoder means that the Son interprets and codifies divine information (divine intention) selected and sent by the Father. The Son encodes in terms of diverse symbolic media such as truth, wisdom, righteousness, and power, but most important through the primary divine medium, agape. The Spirit's decoding presupposes the Spirit's direct observation of both the Father's intention and the Son's interpretation (encoding) of it in order to guarantee perfect divine understanding. This involves distinguishing the two, although in the above schematic the Spirit's observation of the Father is not explicitly displayed. For perfect divine communicative processing, the Spirit must have access to both the Father and the Son. In this proposal, the Spirit should be seen as at once the Spirit of the Father and the Spirit of the Son. The doctrine of *filioque* ("and the Son") thus has a place in this conceptualization. Not only does the Father observe the Son and the Spirit, but the Son observes the Father and the Spirit, as the above schematic shows. Divine communication thus requires complex networking of cross-observation or interpenetration between the three intra-observers. This is a systems-theoretical conceptualization of *perichoresis*, which signifies the interpenetration of the three divine persons (Moltmann [1980] 1993, 149-50).

This proposed view of the Trinity, which I call *the communicative model*, constitutes an alternative that moves beyond the impasse set by the three standard (psychic, social, and process) models while constructively accommodating their strengths and overcoming their weaknesses. What follows is a concise comparison of the three models vis-à-vis the proposed model.

The communicative model is in line with the social model to the extent that it highlights the social dimension of the Trinity by perceiving it as a communicative system *sui generis*. The social model commonly begins with the three individual divine persons and then tries to establish their unity in terms of their egalitarian relationship with one another (Moltmann [1980]

1993; Zizioulas 1985; Brown 1985; Boff 1988). This intratrinitarian relationship is understood through an appeal to relational ontology along with strong emphasis on the doctrine of perichoresis. This kind of social trinitarian move, however, leaves room for the charge of tritheism. The communicative model overcomes this problem because it begins with the unity of God's self-referential communication, but not in the same way that the psychic model begins with the unity of God's essence. The communicative model perceives the three divine symbols in terms of the functionally differentiated intra-observers required for divine communicative processing, thereby avoiding the problems that lead to the charge of tritheism. Moreover, while the social model primarily emphasizes intratrinitarian *relationships*, the proposed model highlights intradivine *communication*.

To the extent that it begins with the unity of the Trinity, the communicative model stands closer to the psychic model. Yet, whereas the psychic model grounds this unity in God's substance and subjectivity, the communicative model grounds it in God's operation or communication. It thus moves beyond the substantialist, subjectivist paradigm that has drawn sharp criticisms from social trinitarianists. For instance, Jürgen Moltmann criticized both Barth and Karl Rahner for holding to a version of Sabellianism (modalism) rooted in subjectivism because both of them deem the Father the absolute subject who reveals or self-communicates, thereby reducing the distinction of the three trinitarian symbols in favor of three modes of one being (Moltmann [1980] 1993, 10-16, 139-48). Whether or not this charge is fair, the significant point for my purpose is that the communicative model can withstand such a charge. Indeed, despite some similarities, the communicative model diverges from the psychic model in several important respects. First, the communicative model is radically *postsubjectivist*, because it deems God not a subject but a communicative system. Second, it is postsubstantialist, because it focuses only on divine operations, not divine essence: The Father refers to the operation, not the subject, of sending/receiving divine information; the Son, the operation of encoding; and the Spirit, the operation of decoding. Third, all three are involved in making selections: The Father signifies selecting information; the Son, selecting the medium; and the Spirit, selecting information out of the medium. In the communicative model, the three symbols are differentiated only in terms of the kinds of selections they signify. This stands in contrast to Barth's view of the Trinity, where he posits that the Father is the main (if not the only) selector.

Is the communicative model a kind of modalism? Is there a hidden God behind Father, Son, and Spirit who are God's mere appearances? Again, this model must be understood in view of its postsubstantialist perspective, in which the focus is on divine communication rather than divine essence or person. Put sharply, God *is* communication. No hidden divine essence exists behind divine communication. Moreover, the communicative model

is based on the paradox of the unity of difference: Divine communication requires the differentiation of the three symbols, but it also simultaneously requires their unity. The unity of divine operation (communication) thus is not distinct or hidden, but instead it is the ground of the differentiated operations of the three divine symbols.

The communicative model has strong affinities with the process model in that it highlights the complexity, creativity, and process of God's nature. The two models also converge in their cosmological and ecological orientation. But they sharply diverge in several respects. First, whereas the process model primarily emphasizes the interdependence between God and the world, the communicative model emphasizes God's transcendence in terms of God's self-observation while simultaneously underscoring the intimate relationship between God and the world systems in terms of God's other-observation and medium coupling. This difference is most evident when the process model underrates the doctrine of *creatio ex nihilo* (creation out of nothing), which is critical among doctrines to safeguarding divine transcendence. John Cobb states: "Consider, for example, a theology that identifies creation with a once-for-all *creatio ex nihilo*. . . . However, this is not process theology. Process theology sees creation primarily as an ongoing process of bringing novel order and ordered novelty into being out of the settled past" (1997, 10). The communicative model, in contrast, upholds this traditional doctrine while interpreting *nihilo* not literally or naively but in terms of the infinite possibility space within God. Creation of the world was one of God's selective possibilities within the divine system, and God selected that possibility out of God's infinite freedom. Unlike process theology, this model maintains that God needs nothing but nothingness to create something. Moreover, the communicative model sees the creation as the external media of God's communication.

Second, contra the process model, which stresses God's temporal contingency in divine processing at the expense of divine perfect knowledge, the communicative model stresses God's supratemporal perfection in divine processing in the sense that God enjoys perfect understanding of divine communication both *ad intra* and *ad extra*. Accordingly, whereas the process model highlights God's radical potentiality at the expense of underrating God's full actuality, the communicative model highlights both at once. This coexistence is possible only in the supratemporal realm.

Third, there is a fundamental difference in methodology. The process model, largely based on Alfred North Whitehead's metaphysical framework, demands heavy metaphysical commitment. The communicative model, which appeals to Luhmann's *post*metaphysical framework, demands much less; it is focused primarily on God's communicative operation.

Finally, the communicative model is clearly distinguished from the process model (and also from the other models) by virtue of its unique features that are highly relevant to this age of info-media.

IMPLICATIONS

The proposed view—God as a communicative system *sui generis*—has rich implications for a variety of contexts both in theology and in science-and-religion. I sketch here only a few of them. (For elaboration, see Moon 2010).

Public Theology for an Age of Info-Media. The proposed view of God serves as a crucial core of a new theological research program that I call public theology for an age of info-media, which attempts to reconstruct all loci of Christian doctrines, as well as theological discourse itself, in view of info-media (Moon 2006; Moon 2010). This program seeks theological meaning of the info-media. This article has cued some of the key ideas on revelation, creation, Christology, pneumatology, anthropology, and ecclesiology. For example, the doctrine of creation is reconceived as follows (Moon 2010, ch. 3): (1) creatio ex nihilo signifies the actual instantiation of God's other-observation, and (2) creatio continua in and through the evolutionary process signifies divine mediatization, which means God's ongoing shaping of the world systems in such a manner that they could function as divine media ad extra via intimate medium coupling with divine media ad intra (Word/Spirit).

Conceptual Fertility. Although the foregoing arguments to advance the proposed God-concept are drawn primarily from Christian theological resources, this model is highly versatile, engendering varied expressions appropriate for varied contexts in science-and-religion. Two derivative models would be (1) God as a living system *sui generis* (for the context of biology-and-religion) and (2) God as a meaning system *sui generis* (for inclusive science-and-religion and religious studies contexts).

1. God is a living system *sui generis*. "What is life?" is still an open question, despite dazzling breakthroughs in life science over decades, as epitomized by the Human Genome Project (see Murphy and O'Neill 1995). Seen from a constructivist perspective, however, the question concerning the essence of life is pointless because it is beyond our reach; what we know about life via life science cannot be anything beyond *constructed* reality in terms of biological codes. Given this stance, the Luhmannian framework can be used to propose this conceptualization: A living system is a complex life-communicative network that autopoietically processes life-communication via diverse life-media (DNA/RNA, enzymes, etc.), structurally coupled with other living systems. This model resonates with varied systems-biological models (Maturana and Varela 1980, 78-79; Brier 2002). In this biological context, the communicative model of God can be transformed as follows: God, as the Ground of Life, is a living system sui generis that autopoietically processes life-communication, in the supratemporal realm, via perfect divine life-media (Word/Spirit)—noncontingently, yet intimately coupled with creaturely living systems. This model finds limited affinities with the theological

views put forward by Tillich (1963) and Moltmann ([1991] 1992). The Word and the Spirit function not only as the perfect divine life-media *ad intra* but also as agents that facilitate medium coupling with creaturely life-media. Creaturely living systems are contingent on the divine living system for their living, whereas God is completely noncontingent, enjoying eternal life as a result of perfect divine life-media *ad intra*.

2. God is a meaning system *sui generis*. An inclusive conception of God, which is suitable for science-and-religion and religious studies, is also plausible: God is a meaning system sui generis that autopoietically processes meaning through the world systems. This is usable for either metaphysical realists or antimetaphysical instrumentalists. For the realists, God is deemed to be the ultimate agent of meaning autopoiesis through the world systems. This view is much more inclusive than the communicative model because meaning is more inclusive than communication and, more important, because it strips off Christian theological ideas used in the communicative model such as supratemporality and perfect divine media *ad intra* (Word/Spirit). For the instrumentalists, God (or the ultimate) is deemed merely a concept, imaginatively created by the religious system, that plays an integral role—as "the ultimate point of reference" (Gordon Kaufman), "the contingency formula" (Luhmann), "a sacred canopy" (Peter Berger), "the sacred" (Mircea Eliade), "a limit concept" (David Tracy), and the like—in generating ultimate meaning through the world systems. Conventionally, the religious system has been deemed one that creates ultimate meaning through the symbolic medium centered on the concept of God (or the ultimate), Luhmann being no exception. But this conventional view can be reversed into a soft Hegelian version: The divine system, conceived as an ultimate meaning system, has been evolving along with the world systems. A prime virtue of this conceptual scheme is the uncontestable sui generis nature of the divine system, compared to the religious system, whose sui generis nature has been severely questioned in contemporary religious studies, ever since Russell McCutcheon's challenge (1997). But the sui generis nature of the concept of God (or the ultimate) cannot be challenged because it cannot be transcended by any other concepts, whereas the religious system can be subsumed under a cultural system. In this sense, God as a meaning system sui generis can serve as a useful heuristic alternative to the religious system for religious studies as well as for science-and-religion.

NOTES

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^{1.} For a philosophical introduction, see Moeller 2006; for its applications in science-andreligion or theology, see Gregersen 1998; Moon 2002; 2006; 2010; Oviedo 2006; Thomas and Schüle 2006; Welker 1985.

- 2. For discussion on nothingness from a Hegelian/Buddhist perspective, see Scarfe 2006.
- 3. This proposal finds limited resonance with the concept of vacuum (that is, "the infinite sea" of virtual physical possibilities) in quantum physics (Close 2007, ch. 7) and the idea of the spontaneous emergence of the universe through quantum vacuum fluctuation as best exemplified by the Hartle-Hawking model (ch. 9). For elaboration, see Moon 2010, ch. 3.
- 4. Old Testament scholar Walter Brueggemann (1997), employing rhetorical criticism, distinguishes four different types of Israel's testimony that are *prima facie* irreconcilable with one another: core, counter-, unsolicited, and embodied testimonies. Luhmann calls such incompatible communications within a social system *conflict* (Luhmann [1984] 1995, ch. 9).
 - 5. For sympathetic articulations on Barth's trinitarian theology, see Taylor 2003; Jowers 2003.

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