



laetus in praesens

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Is the World View of a Holy Father Necessarily Full of Holes?

Mysterious theological black holes engendering global crises

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Introduction

The argument has been variously presented, but may be succinctly stated: *Which problems currently associated with global crisis would not be significantly reduced if the level of population was much lower?* Presented otherwise: *Is there every probability that global problems will be significantly aggravated by expected levels of population in the future?*

Counterarguments tend to be based on the necessarily unproven assumption that the planet has the resources to feed everybody -- and more. Alternatively the argument is that it is only a question of more appropriate distribution of resources and ensuring the processes to do so. A key factor cited is the empowerment of women to constrain fertility more responsibly.

Whilst there is extensive focus on demographics in relation to resource issues as a basis for such counterarguments, missing from the debate is any concern with indicators regarding the actual remedial capacity to confirm the validity of those assumptions. This has been discussed separately (*Recognizing the Psychosocial Boundaries of Remedial Action: constraints on ensuring a safe operating space for humanity*, 2009; *Remedial Capacity Indicators Versus Performance Indicators*, 1981).

Specifically the concern here is with inadequate temporal consideration by religions. Although human tragedies in the present are deplored, any past responsibility for them is denied, as with future suffering and death. As indicated by the title, the argument exploits the curious association in English between the holiness of those sustaining the present framing and the possibility that their arguments are necessarily "full of holes". This may well derive in part from the cognitive profundity of the eternal metaphysical and theological insights by which they are inspired (*Adhering to God's Plan in a Global Society: serious problems framed by the Pope from a transfinite perspective*, 2014)

Religions, most notably the Abrahamic, are inspired by stars -- figuring notably in their iconography. Christianity has long used a star, most probably a [supernova](#), as part of its founding mythology. As suggested by the subtitle of this document, there is also a case for exploring the role of [black holes](#) in theological thinking -- notably given their importance as metaphors with respect to the ongoing global financial crisis and the suffering it has engendered.

The suggestion made is that, in addition to the mysterious nature of black holes and to the cognitive significance of holes in general, there is a case for further exploration of past recognition of the association of hole to holiness and to understanding of whole. With respect to the seeming inadequacy of the sustaining theology of this time, these considerations can be variously extended. Possibilities include the arguments of [Terrence Deacon](#) (*Incomplete Nature: how mind emerged from matter*, 2012), or the [incompleteness theorems](#) of [Kurt Gödel](#), notably as discussed by [Douglas Hofstadter](#) (*Gödel, Escher, Bach: an eternal Golden Braid*, 1979), as well as his [ontological proof of the existence of God](#).

The urgency of such investigation is indicated at the time of writing by the Judeo-Christian framing of the actions of radical Islam as completely senseless and incomprehensible in the light of the fatalities caused. Such framings are typically reciprocated on the basis of other facts or their interpretation. Each framing of course considers itself unquestionably complete and sufficient unto itself as a moral authority. This is a feature of the incapacity of religions to "get their act together" in relation to one another -- despite decades of interfaith dialogue and violence.

The widely publicized declarations of abhorrence regarding suffering serve to position those making them on the moral high ground, thereby inhibiting comparison with suffering they have perpetrated over years. At the time of writing this is only too apparent from the declarations of US Secretary of State [John Kerry](#) regarding the slaughter of [132 children in Pakistan](#) in a period in which the abhorrence at the alleged [CIA torture](#) of some 119 detainees over seven years is being debated.

Together these are reminiscent of the attitude of US Ambassador to the United Nations, [Madeleine Albright](#) when questioned on whether the sanctions against Iraq were appropriate (having killed more children than at Hiroshima). Albright replied: *I think this is a very hard choice, but the price -- we think the price is worth it* (*We Think the Price is Worth It, Fair*, 2001). Such thinking is framed by a previous US Ambassador to the United Nations ([Jeane Kirkpatrick](#), *The Myth of Moral Equivalence*, 1986), as noted previously (*Enabling Suffering through Doublespeak and Doublethink: indifference to poverty and retributive justice as case studies*, 2013).

Given that this is the perspective of a country that deems itself to be especially blessed by God, would this also reflect the thinking of a Holy Father?

Ignoring the remedial incapacity ensuring future suffering

Given the demonstrated **remedial incapacity** of the "international community" in relation to most issues, it is highly questionable whether effective measures can be implemented appropriately in a timely manner. The progress with respect to climate change is an indicator of this -- despite the characteristic optimism of declarations disseminated at the conclusion of the recent [UN Climate Change Conference](#) (Lima, 2014), or previously ([United Nations Overpopulation Denial Conference: exploring the underside of climate change](#), 2009). Is there an "inconvenient truth" of more fundamental significance which merits exploration, and what are the challenges of doing so (*An Inconvenient Truth -- about any inconvenient truth*, 2008).

There is ever increasing evidence of the level of suffering and death resulting from the remedial incapacity of the international community in response to those driven to desperate efforts to seek asylum in Europe and other industrialized countries -- not to mention the suffering of those they leave behind (*IOM Releases New Data on Migrant Fatalities Worldwide: almost 40,000 since 2000*, *International Organization for Migration*, September 2014; *Eight migrants die every day trying to reach richer countries, study reveals*, *The Guardian*, 29 September 2014). This has been discussed separately (*Indifference to the Suffering of Others*, 2013; *Indifference to Poverty and Retributive Justice as Case Studies*, 2013).

Of related concern is the increase in [compassion fatigue](#) and [psychic numbing](#) in the face of such evidence -- as well as the increasing opposition to such asylum seekers in countries less immediately challenged by resource issues.

The purpose here is **not** to revisit arguments already variously made (*Institutionalized Shunning of Overpopulation Challenge: incommunicability of fundamentally inconvenient truth*, 2008; *Begetting: challenges and responsibilities of overpopulation*, 2007; *Is There Never Enough? Religious doublespeak on population and poverty*, 2013; *Root Irresponsibility for Major World Problems: the unexamined role of Abrahamic faiths in sustaining unrestrained population growth*, 2007).

The focus here is on **how to reframe consideration of factors inhibiting fruitful systemic insight into constraints on remedial capacity**, most notably any effective debate about the systems and vested interests ensuring such constraints. The argument follows earlier discussion of a tendency to secondary or "downstream" framing of the challenges (*Vigorous Application of Derivative Thinking to Derivative Problems: transcending bewailing, hand-wringing and emotional blackmail*, 2013).

Retreat to an eternal stronghold from responsibility in the present

Transfinite eternal perspective: Religions characteristically define themselves as eternal, even transcending any conventional understanding of time. They operate in terms of a framework which extends over centuries -- purportedly consistent with revelations made by their founding figures under divine inspiration and with a divine mandate.

Within this framework religions offer a degree of solace in the present to their believers -- with the prospect of some form of eternal life for those who behave appropriately according to religious strictures. To that extent they address suffering in the present, however necessary it may be held to be in fulfillment of divine purpose and the salvation of souls.

Fruitful multiplication: It is within this context that the religions -- most significantly the influential Abrahamic religions -- variously encourage adherence to the divine injunction in the scripture they share: *be fruitful and multiply* (*Genesis 1:28*). As discussed separately, in terms of the profundity of what that phrase may imply, its simplistic interpretation may derive from a tragic error in translation ("*Be Fruitful and Multiply*": *the most tragic translation error?* 1995). Despite the tragedies to which it gives rise in the present, there is no examination of subtler interpretations as might be suggested from more recent insights from mathematics..

Sacrifice? Even more problematic is the possibility that this is indicative of an unexamined (unconscious) commitment to the tradition of sacrifice with which religions have long been so closely associated (*Systemic Reliance of World Religions on Human Sacrifice: covert use of fatal conflict to ensure vital resource management*, 2014). This can be understood as a means of accelerating achievement of divine purpose in terms of prophesied "end times" scenarios (*Spontaneous Initiation of Armageddon: a heartfelt response to systemic negligence*, 2004).

Justifying violence? Despite the fundamental significance of their eternal framework, an indication of the temporal challenge of religions is to be found in their perpetration of suffering in the present. Most obviously this is evident with respect to justification for the use of physical violence, exemplified by the Christian crusades of the past, and presently reframed (P. T. Forsyth, *The Christian Ethic of War*, 1999). It is similarly evident with respect to Islamic *jihad* (notably through the current initiatives of ISIS), and action by those of Jewish faith against the Palestinians. In a period when much is being made of the justification for the use of torture in a culture claiming to be profoundly inspired by Judeo-Christian values and beliefs, it is appropriate to note the justifications for the use of torture by the Inquisition in the past -- purportedly, in part, as a means of saving souls (*The Hoorors of the Church and its Holy Inquisition, The Christian Enterprise*).

The latter example is interesting in that it is partially excused by claiming that such practices were characteristic of those times. This is in curious contrast to claims made for the eternal values associated with the Christian message. The contradiction between eternal values and current practice is also evident in the complicity of religion in articulating **just war theory**. Judeo-Christian societies have few qualms about envisaging the devastation of other Christian societies. This is evident in war-mongering between NATO and Russia at the time of writing.

Justifying torture? The just war logic is now seemingly in process of extension to "just torture" (*Torture as a Jus Cogens Norm, Transcend Media Service*, 15 December 2014; Shunzo Majima, *Just Torture? Journal of Military Ethics*, 2012). The very particular framing of responsibility by Christianity is evident with respect to the many instances of **sexual abuse by clergy** that have been so widely publicized. The point has been repeatedly made by Catholic authorities, for example, that this should be understood in terms of isolated incidences. The fact that evidence indicates that it is to some degree systemic is challenged.

The issues have featured remarkably in the UN report on the Vatican's complicity in torture (Lizzy Davies, *UN Committee Against Torture criticises Vatican handling of sex abuse, The Guardian*, 23 May 2014; Christian Caryl, *Is the Vatican Guilty of Torture? Foreign Policy*, 20 May 2014; *U.N. committee on torture grills Vatican on sexual abuse, Reuters*, 5 May 2014). Would the procedures of the Inquisition now also be considered torture? In response to criticism, the Vatican has engaged in various efforts at reinterpreting the facts of such matters, including the actions of the Inquisition (Carol Glatz, *Vatican warns against misinterpreting international law, human rights, Catholic News Service*, 26 September 2014; *Vatican says abuse report 'misinterpreted' 1997 letter, The Tablet*, 10 September 2011).

Flawed systemic thinking? The point to be made is that **if the position of the Catholic Church can be argued to be systemically flawed on some matters, to what extent should the possibility be considered that it is systemically flawed on other matters?**

The point can be emphasized otherwise in that only in 1992 did the Church offer a **convoluted "apology"** for its condemnation of **Galileo Galilei** in 1633, whom it had threatened with torture if he failed to recant his views regarding **heliocentrism** in contrast to **geocentrism** -- the so-called **Galileo Affair**.

Holy fatherhood and paternal responsibility

Fatherhood: It is curious to note the emphasis placed by various religions on the paternal role of their priests. This extends from the Abrahamic religions to terms employed by other religions. The metaphor derives in part from the pastoral heritage of herding sheep (or other animals) and care of a flock.

More curious is how the role of fatherhood is to be understood in the case of priest and clergy -- possibly addressed as "father" -- and more specifically those recognized in some way as "Holy Father". The latter is an honorific extension of use of **God the Father** as a title given to God in religions such as Christianity and Judaism. The Roman Pontiff, as the successor of Peter, is held to be the perpetual and visible principle and foundation of unity of both the bishops and of the faithful (*Lumen Gentium: the dogmatic constitution of the Church*, 23; Don R. Caffery, *Our Holy Father, the Pope: the papacy from Saint Peter to the present*, 2013)

In an answer to the question *Why do Catholics call the pope the "Holy Father"* (*Catholic Answers*) it is stated that:

Only God is holy by his very essence; however, by a person, place, or thing's association with God, it too can be called holy. To be called holy is to express the idea of consecration, that someone or something belongs to God. That is why the Bible can call many persons, places, and things holy....

Since we are his holy people, and his people are the Church, it is fitting that the head of his holy people be called Holy Father -- not because of his own merit, but because Christ died for him and for the Church that he leads on earth.

Further clarification as to the status and role of the Pope is disseminated by the Catholic Resource Network (*Answering Common Objections: a closer look at Christ's Church -- The Pope, Holy Father*, Trinity Communications, 1994).

Paternal responsibility for potential suffering: The Biblical sense of the fatherhood of God is clearly associated with understandings of how humanity was engendered. It is with this sense that the phrase *be fruitful and multiply* (*Genesis 1:28*) is associated. Considerable controversy is however associated with the issue of how God should be apparently so complicit in the suffering of humanity. The unqualified injunction to multiply, thereby increasing the potential of suffering, is therefore a legitimate subject for further debate.

Of greater relevance to the argument here is the sense in which the Pope is associated with such fatherhood and the responsibility of that fatherhood. As a consequence of use of this metaphor, of particular interest is the sense in which the Pope has a paternal responsibility for the number of children engendered and the risks to which they may be subject in consequence.

From a feminist perspective, there is a sense in which both "fatherhood" and "paternal responsibility", as interpreted by the Pope, bear a

remarkable resemblance to the manner in which children may be engendered irresponsibly by men -- carelessly. There is total neglect of any paternal responsibility thereafter. Effectively this even extends to denying paternity or any duty of care whatsoever. Women, notably single mothers, are obliged to bear the consequences of male irresponsibility and their abandonment of the children.

Caritas: Curiously, in contrast, the Pope claims frequently to care for "his children" under the long-standing principle of *caritas* -- a theme of two recent papal encyclicals (*Deus Caritas Est*, 2005; *Caritas in Veritate*, 2009).

Such care is embodied in *Caritas Internationalis*, a well-known confederation of 165 Catholic relief, development and social service organisations operating in over 200 countries and territories worldwide.

Theological gerrymandering: The systemic question to be raised is how this care is focused to the exclusion of considerations by which wider suffering and fatality are engendered. The manner of this focusing could be defined as "theological gerrymandering" -- a pattern shared with the sciences (*Scientific Gerrymandering of Boundaries of Overpopulation Debate*, 2012).

As noted above, **the current focus is on suffering in the present and not on how future suffering is systematically engendered -- or on how present suffering and fatality has been engendered.** Paternal responsibility seemingly has its limits for the Pope. The "buck stops here" is entrenched in Catholic theological doctrine whereby responsibility is "designed out" of the manner in which necessary care is framed. It would appear that buck passing has been made the art of papal irresponsibility.

The approach taken by Christianity and other religions is to claim that any such suffering at the present time is the responsibility of others -- most notably via the "international community" -- as with that likely to be engendered in the immediate future by increase in the population. The existence of that curiously amorphous entity -- with no status in international law -- bears an ever more curious resemblance to a deity-surrogate as a focus for secular (un)believers.

Emotional blackmail: Such buck passing has all the characteristics of emotional blackmail, whether inadvertent or deliberate. The message is effectively that failure to conform to the divine injunction of *be fruitful and multiply* -- and to care responsibly for the result -- is to bring divine wrath upon society in the form of suffering and fatality. The religions advocating this stance are in no way to be held responsible and may continue to seek the moral high ground in pleading for aid for those sufferer as a consequence of this neglect.

How this attitude might be interpreted within a framework of enlightened law is a matter for careful debate. **Is time-challenged systemic neglect to be considered as a crime against humanity?** *Forgive them Father for they know not what they do* (Luke 23:34). Is it to be classified with respect to murder, manslaughter or homicide -- perhaps by enlightened extraterrestrials according to galactic law? Or by any prophesied Messiah? Is it to be understood in terms of **withholding aid to persons in danger**?

The argument can be taken further by exploring the present unchallenged understanding of *be fruitful and multiply*. Why should every couple not be encouraged to increase the number of children -- to 5, to 10, to 15, or more -- whatever is biologically feasible? Modern medicine could facilitate industrial scale **fecundity** in support of those religious groups subscribing to **nativism**.

How does theology frame any argument for responsible constraint -- irrespective of constraints on housing and other resources? Response to constraint can be considered through a thought experiment (*Resource Insights from Plus or Minus 12 People on a Liferaft: thought experiment to highlight global dilemmas in a comprehensible context*, 2014). More generally it could be asked why, after decades of widespread and intensive discussion of human rights, so little effective consideration is given to the human irresponsibility which engenders so much suffering (*Universal Declaration of Responsibilities of Human Intercourse: a draft proposal*, 2007).

Necessary incompleteness

The consequence of deliberately omitting, or unconsciously missing, a dimension essential to systemic viability can be reviewed and further justified by the work of the biological anthropologist **Terrence Deacon** (*Incomplete Nature: how mind emerged from matter*, 2012; *The Symbolic Species: the co-evolution of language and the brain*, 1997). He explores the paradoxical incompleteness of semiotic and teleological phenomena in terms of information to demonstrate how specific absences (or constraints) play the critical causal role in the organization of physical processes that generates these properties.

For Deacon, in introducing his argument:

The problem is this: *Such concepts as information, function, purpose, meaning, intention, significance, consciousness, and value are intrinsically defined by their fundamental incompleteness.* They exist only in relation to something they are not.... The "something" that each of these is not is precisely what matters most. But notice the paradox in this English turn of phrase. To "matter" is to be substantial, to resist modification, to be beyond creation or destruction -- and yet what matters about an idea or purpose is dependent on something that is not substantial in any obvious sense. So what is shared in common between all these phenomena? In a word, nothing -- or rather, something not present. (p. 23, *emphasis in original*)

The fundamental value of focusing on what is "absent" from conventional explanation is introduced by Deacon by comparing it to the vital role of **zero** in the number system -- itself a great discovery (cf. Charles Seife, *Zero: the biography of a dangerous idea*, 2000; Robert Kaplan and Ellen Kaplan, *The Nothing that Is: a natural history of zero*, 2000). For Deacon:

Basically, it means that our best science -- that collection of theories that presumably comes closest to explaining everything -- does not include this one most defining characteristic of being you and me. In effect, our current "Theory of Everything" implies that we don't exist, except as collections of atoms. So what's missing? **Ironically and enigmatically, something missing is missing.** (p. 1, *emphasis added*)

He uses this analogy to zero to demonstrate how a form of causality dependent on specifically absent features and unrealized potentials can be compatible with the best of science. Deacon sees this approach as offering a *glimpse of the qualitative outlines of a future science that is subtle enough to include us and our enigmatically incomplete nature, as legitimate forms of knotting in the fabric of the universe* (p. 17)

Deacon places great emphasis on the vital constraining role of absence in systemic organization. It is in this sense that the "hole" recognized in the new metaphor proposed by Oxfam offers vital insights into the possibility of more viable strategic organization (Kate Raworth (*A Safe and Just Space for Humanity: can we live within the doughnut?*, Oxfam, February 2012). This possibility is separately considered (*Exploring the Hidden Mysteries of Oxfam's Doughnut: recognizing the systemic negligence of an Earth Summit*, 2012).

In concluding, Deacon argues:

We are what we are not: continually, intrinsically, necessarily incomplete in our very nature. Our sense of self, our experience of being the originative locus of agency, our interior subjective isolation, and the sense of emerging out of nothing and being our own prime mover -- all these core characteristics of conscious experience -- are accurate reflections of the fact that self is literally *sui generis*, emerging each moment from what is not there. (p. 535)

In his concluding paragraph Deacon notes:

In the title to one of his recent books, [Stuart Kauffman](#) [*At Home in the Universe: the search for laws of self-organization and complexity*, 1995] succinctly identifies what has been missing from our current blinkered metaphysical worldview. Despite the power and insights that we have gained from this powerful way of conceiving of the world, it has not helped us to feel "at home in the universe". Even as our scientific tools have given us mastery over so much of the physical world around and within us, they have at the same time alienated us from these same realms. **It is time to find our way home.** (p. 545) [*emphasis added*]

The challenge of thriving in this cognitive environment is then less a question of locating relevant literature, learning the knowledge it contains, or citing it to justify positions to others. Nor is it a question of who has been there before, or any criticism from some other perspective of "rediscovering the wheel". The question might even be the validity of the external frame from which that question could be asked. By whom is one to be persuaded, about what and why -- and why should one seek to persuade? To what extent is any essential incommunicability a matter of [Ludwig Wittgenstein's](#) concluding phrase: *Whereof one cannot speak, thereof one must be silent* (*Tractatus Logico-Philosophicus*, 1921).

As discussed previously (*Evolutionary influence of the absent*, 2011), with respect to the argument of Deacon, a key factor with respect to the emergence of knowledge may be intimately associated with what is missing -- a point succinctly made in the contrast between the print and online summaries of his argument (*The importance of what is missing*, *New Scientist*, 26 November 2011; *Consciousness is a matter of constraint*, *New Scientist*, 30 November 2011). For Deacon:

... **have we been looking in the wrong places for clues?** ... brain researchers and philosophers of mind have focused on brain processes, neural computations and their correspondences with the material world. But what if we should be focusing on what is not there instead? ... I believe that in order to overcome this stalemate **we need to pay more attention to what is intrinsically not present in everything** -- from life's functions and meanings to mind's experiences and values. [*emphasis added*]

As he concludes in *Incomplete Nature*:

Perhaps the most tragic feature of our age is that just when we have developed a truly universal perspective from which to appreciate the vastness of the cosmos, the causal complexity of material processes, and the chemical machinery of life, we have at the same time conceived the realm of value as radically alienated from this seemingly complete understanding of the fabric of existence. In the natural sciences there appears to be no place for right/wrong, meaningful/meaningless, beauty/ugliness, good/evil, love/hate, and so forth.... By rethinking the frame of the natural sciences in a way that has the metaphysical sophistication to integrate the realm of absent phenomena as we experience them, I believe that we can chart an alternative route out of the current existential crisis of the age... (p. 544)

Although the initial chapter of Deacon's thesis is entitled "(W)HOLES", ironically he has nothing to say about "holes", as it possible to explore them in relation to his focus on what is missing in any understanding of incompleteness.

Cognitive mystery of holes, lacunae and incompleteness

The question is how to talk about what is so challenging to talk about -- and is so clearly not talked about for a variety of reasons (*Global Strategic Implications of the "Unsaid"*, 2003; *Varieties of the "unsaid" in sustaining psycho-social community*, 2003). Is there any viable approach to be explored, as separately discussed (*Overpopulation Debate as a Psychosocial Hazard: development of safety guidelines from handling other hazardous materials*, 2009; *Mapping the Global Underground Articulating: Insightful Population Constraint Consideration (IPCC)*, 2010). Given the focus on holiness, is there anything to be learned from [apophysis](#) and unsaying (Michael A. Sells, *Mystical Languages of Unsaying*, 1994)?

Fundamental hole in the argument? Aspects of the argument in this section, and the following, have been developed (and illustrated)

separately to a greater degree (*Greater insight through holiness?* 2014). The argument deliberately exploits the association in English between "hole" and "holy" as homophones, notably as it might be extended to "holiness" and "unholiness". This could be seen as a fundamental hole in this argument in the light of the formal distinction made by relatively few (*Holey vs. Holy, Grammarist*). However the association is variously recognized in a variety of contexts -- if erroneously. One sermon by Frank Nelson explores *Wholeness in Holeyness*. Another sermon develops a related argument, for example ("*Holy Spirit Holes*", *Acts 2:1-11*):



Yet today, I think we need "Holy Spirit holes" more than ever. Not the kind that serve as props for a medieval worship experience, but openings and conduits through which God's Spirit can enter, permeate and revitalize people who are caught up in this violent, narcissistic, hedonistic, materialistic-oriented culture. We need Christians to serve as "Holy Spirit holes" -- witnessing to the power of God's love in this world. We need Christians who are willing to be conduits of God's grace in a graceless world.

One justification for the association is that the cognitive implications of "hole" and "holy" (as experienced) are both mysterious, if not equally so. As experienced, they are also potentially related -- irrespective of etymology. This is widely appreciated in the case of the latter but calls for clarification in the case of the former. Notable examples are the choice of "hole" by physicists as descriptors of the nature of **electron holes** or **black holes** -- on the smallest and largest scales beyond human comprehension.

In atomic physics, a hole is an electric charge carrier with a positive charge, equal in magnitude but opposite in polarity to the charge on the electron. Holes and electrons are the two types of charge carriers responsible for current in semiconductor materials. A hole is considered to be the absence of an electron in a particular place in an atom. Although it is not a physical particle in the same sense as an electron, a hole can be passed from atom to atom in a semiconductor material.

Would the incidence of such holes in a semiconductor, or black holes in the universe, be described in terms of "holiness" or "holeyness" (*Holey Space*, 8 November 2009; Paula Hirschboeck, *Of Black Holes and Hol-i-ness*, November 2006; *Are congenial constants also holey?* *Physics Forums*, 15 September 2010; Karen Ryan, *Wholeness vs. "Holeness"*. April 2005)?

A potentially elegant artifice for reconciling these issues could be to make use of the surfaces of the **Möbius strip** and of the **Klein bottle**, as shown below -- each offering the illusory suggestion that "holeness" is associated with external explication, and that "holiness" is associated with internal implication. The further advantage of these forms is that each frames a hole in ways which continue to raise the question as to the meaning which might be associated with such nothingness.

| Suggestive paradoxical cognitive relationship between "holeness" and "holiness" (images adapted from <i>Wikipedia</i>) | |
|----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Möbius strip | 2D representation of the Klein bottle immersed in 3D space |
|  |  |

The paradoxical forms suggest a means of representing the relationship (or transition) between the objectivity of "holeness" and the subjectivity of "holiness", as separately discussed (*Defining the objective ∞ Refining the subjective ?!: Explaining reality ∞ Embodying realization*, 2011). Use of these forms is consistent with arguments of **Steven M. Rosen** (*The Moebius Seed: a visionary novel of planetary transformation*, 1985; *Bridging the "Two Cultures": Merleau-Ponty and the crisis in modern physics*, 2009). Another approach to their relationship might be to assume an analogue to the **Uncertainty Principle** taking the following form:

- The greater the effort to explicate the holy objectively, the greater its resemblance to a hole [*consistent with deprecation by atheists*]
- The greater the effort to comprehend the subject implications of a hole, the greater its association with the holy [*consistent with mystical appreciation of emptiness*]

Framing nothingness: Especially intriguing is the sense in which mnemonic catalysts may frame a central emptiness or hole -- consistent with current recognition of the significance of "nothingness" (*Emerging Significance of Nothing*, 2012). Of particular relevance to this argument, which acknowledges the importance associated with theology and religious belief, is the sense in which such thinking and belief is notably deprecated by intellectuals, as much-debated surveys continue to show (John G. Messerly, *Religion's Smart People Problem: the shaky intellectual foundation for belief*, *AlterNet*, 22 December 2014). The latter comments on a survey of English-speaking philosophers which showed that only 14 percent were theists (Sean Carroll, *What Do Philosophers Believe?* 29 April 2013).

The difficult for atheists of such eminence is that in a time of global crisis it would appear that philosophers seem to have essentially "nothing" to offer to a population increasingly sensitive to being faced with a future of "nothing" -- exemplified by what global governance is now increasingly perceived to be offering. The prevailing simplistic attitude, inadequate for the times, is caricatured by the title of a book by **Edward de Bono** (*I Am Right You Are Wrong*, 1992) -- fruitfully subtitled *From This to the New Renaissance: From Rock Logic to Water Logic*. There is therefore a case for exploring ways of framing "nothing" otherwise, as may be variously discussed

(*Way Round Cognitive Ground Zero and Pointlessness? Embodying the geometry of fundamental cognitive dynamics*, 2012; *Configuring the Varieties of Experiential Nothingness*, 2012).

Those producing models are faced with the reality of their competitive deprecation by those of other persuasion -- without offering any way forward beyond "I am Right, You are Wrong". The issue has been described by [Nicholas Rescher](#) as the conclusion to his study of *The Strife of Systems: an essay on the grounds and implications of philosophical diversity* (1985):

For centuries, most philosophers who have reflected on the matter have been intimidated by the strife of systems. But the time has come to put this behind us -- not the strife, that is, which is ineliminable, but the felt need to somehow end it rather than simply accept it and take it in stride.

What is the "well" or "hole" of ignorance that underlies conventional knowledge, sustaining Rescher's "strife", and inhibiting fruitful reconciliation in the light of conventional model building? (cf. *Unthought as Cognitive Foundation of Global Civilization*, 2012). What is the implication of the provocative insight of [Ambrose Bierce](#): *The small part of ignorance that we arrange and classify we give the name of knowledge*.

Of particular relevance is the remarkable exploration by [Roberto Casati](#) and [Achille C. Varzi](#) (*Holes and Other Superficialities*, 1994) -- with respect to the borderlines of metaphysics, everyday geometry, and the theory of perception (reviewed by Steven A. Gross, *What's in a Hole? The Harvard Review of Philosophy*, 1994). They seek to answer two basic questions: Do holes really exist? And if so, what are they? As they indicate in an extensive [entry on holes](#) in the *Stanford Encyclopedia of Philosophy*:

Hole representations -- no matter whether veridical -- appear to be commonplace in human cognition. Not only do people have the impression of seeing holes; they also form a corresponding concept, which is normally lexicalised as a noun in ordinary languages... Moreover, data from developmental psychology and the psychology of perception confirm that infants and adults are able to perceive, count, and track holes just as easily as they perceive, count, and track paradigm material objects such as cookies and tins... These facts do not prove that holes and material objects are on equal psychological footing, let alone on equal metaphysical footing. But they indicate that the concept of a hole is of significant salience in the common-sense picture of the world, specifically of the spatiotemporal world.

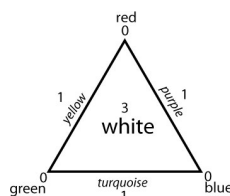
Conundrums noted by the authors include:

1. It is difficult to explain how holes can in fact be perceived... a causal theory of perception would not apply to holes. Our impression of perceiving holes would then be a sort of systematic illusion, on pain of rejecting causal accounts of perception...
2. It is difficult to specify identity criteria for holes -- more difficult than for ordinary material objects. As holes are immaterial, we cannot account for the identity of a hole *via* the identity of any constituting stuff. But neither can we rely on the identity conditions of its material host... And we cannot rely on the identity conditions of its guest, for it would seem that we can empty a hole of whatever might partially or fully occupy it and leave the hole intact.
3. It is equally difficult to account for the mereology of holes. Take a card and punch a hole in it. You have made one hole. Now punch again next to it. Have you made another hole?... what prevents us from saying that we still have one hole, though a hole that comes in two disconnected parts? After all, material objects can be disconnected... Perhaps holes may be disconnected, too? If so, perhaps we have just punched a single, disconnected hole?
4. It is also difficult to assess the explanatory relevance of holes. Arguably, whenever a physical interaction can be explained by appeal to the concept of a hole, a matching explanation can be offered invoking only material objects and their properties.... Aren't these latter explanations enough?

The focus of that argument is on holes as they may be perceived in tangible objects. The argument is not extended to the implications for intangible holes -- for which tangible holes are used so frequently as a metaphor. However tangible they may be considered to be, hole is the metaphor of choice for atomic physics and astrophysics.

Framing incommunicability and learning : A remarkable analysis of communicability and learning in mathematical terms is provided by Ron Atkin (*Multidimensional Man; can man live in 3-dimensional space ?* 1981). This is effectively an analysis of holes in insight prior to any cognitive shift to greater insight. As noted separately with respect to incommunicability (*Social organization determined by incommunicability of insights*), this makes use of a simple colour triangle to illustrate the challenge.

The perceptual significance of this approach is well-illustrated by visual sensitivity to colours resulting from the three primary hues (red, green and blue). These may be represented on a simple triangle. Here the vertices (0-simplexes) represent the primary hues, the sides are twofold combinations (1-simplexes), and the combination of the three hues makes the central white (2-simplex).



0-dimension vision:

-- Red, Green or Blue

1-dimension vision:

-- Yellow (=Red/Green);
-- Purple (=Red/Blue); or
-- Turquoise (=Blue/Green)

2-dimension vision:

-- White (=Red/Green/Blue)

Now to be able to see all the colours, including white, a person's vision needs to have the ability to function within the triangle as 2-dimensional "traffic" on that geometry, moving from location to location adjusting to the complexity of the geometrical structure which carries the visual traffic. If the person's vision is 1-dimensional, then white could not be perceived because the visual traffic of seeing is restricted to the edges and vertices only.

If the person's colour vision is 0-dimensional, then it is restricted to the vertices. It can only see one vertex colour at a time and never a combination (as represented by an edge). If vision was 3-dimensional, it would allow traffic throughout the geometry, but would perceive other colours as well, calling for a fourth vertex (forming a tetrahedron) in order to contain the full range of combinations.

If the geometry represents insights instead of colours, then it would be expected that some would have 0-dimensional comprehension (i.e. sensitive to isolated primary insights only). In this sense there is an irony in the way that opposing political factions each tend to identify with a particular primary colour as a symbol. Others may have 1-dimensional comprehension (i.e. only sensitive to binary combinations of primary insights). The latter would be unable to maintain attention to three insights simultaneously in order to perceive the threefold combination (the central insight of higher order).

The threefold insight may then be termed a 2-hole in the pattern of comprehension and communicability amongst those involved. For 2-dimensional traffic however, the insight complex is coherent, comprehensible and well integrated. For the 1-dimensional traffic, it feels less secure as a whole, since the whole complex may only be experienced sequentially through a succession of experiences ("around the edges"). The shape of the whole may then be deduced but not experienced. For 0-dimensional traffic, the underlying insight of higher order does not exist, since experience is disconnected.

Framing a hole as an attractor: So framed the question could be asked as to how a hole could be most intriguingly framed as an attractor -- implying a higher order of insight without giving any specific form to it (*Imagining Attractive Global Governance: questioning possibilities and constraints of well-boundedness*, 2013).



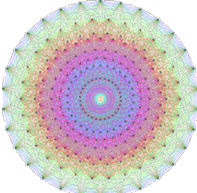
Holes with which significance is associated are illustrated by artefacts in the following section. Is there a requisite complexity to the pattern of holes -- potentially assumed to call for "cover-ups"? Is this necessary to ensure viable global governance, otherwise presented too simplistically, as separately argued (*Ungovernability of Sustainable Global Democracy?* 2011)?

Nature of metaphysical and theological holes

Valuing holes: A classic approach -- notably in the East -- to self-reflexive coherence is through the circle, or wheel, as a metaphor. In such a case the polarities are held by the linear spokes which collectively define a curved circumference. Much can be made of the conceptual significance of any "emptiness" at the hub of such a wheel -- as in the classic quotation from Lao Tzu (*Tao Te Ching*), also quoted in his introduction by Deacon (2012):

Thirty spokes share the wheel's hub.
It is the centre hole that makes it useful...
Therefore profit comes from what is there;
usefulness from what is not there.

Framing a hole as an attractor: So framed the question could be asked as to how a hole could be most intriguingly framed as an attractor -- implying a higher order of insight without giving any specific form to it. Holes with which significance is associated are illustrated by the following.

| Jade Bi Disc (China) (reproduced from Wikipedia) | Torii Gateway (Japan) (animation adapted from Wikipedia) | Lie group representation (reproduced from Wikipedia) |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |

The above images (and the following) are discussed separately with other examples (*Now as the Ultimate Cognitive Strange Attractor: a continuing invitation "down the rabbit hole"?* 2014; *Enabling Wisdom Dynamically within Intertwined Torii: requisite resonance in global knowledge architecture*, 2012; *Imagining Attractive Global Governance: questioning possibilities and constraints of well-boundedness*, 2013; *Implication of Toroidal Transformation of the Crown of Thorns: design challenge to enable integrative comprehension of global dynamics*, 2011)

Theological association of holes and holiness: Aside from the above imagery, there is a variety of commentary on this association, most notably from a non-Catholic perspective (Stephanie Airth, *Holiness, Whole-ness and Holes*, *The Garden Statuary*, 2012; Vic Reasoner, *The Hole in the Holiness Movement*, 1991). Much cited and reviewed is the study by Kevin DeYoung. (*The Hole in Our Holiness: filling the gap between Gospel Passion and the Pursuit of Godliness*, 2012). DeYoung believes there is a hole in our holiness, a gap between gospel passion and the pursuit of holiness. The hole is simply this: that we don't really care much about holiness:

Passionate exhortation to pursue gospel-driven holiness is barely heard in most of our churches.... I'm talking about the failure of Christians, especially younger generations and especially those most disdainful of 'religion' and 'legalism,' to take seriously one of

the great aims of our redemption and one of the required evidences for eternal life -- our holiness.

This use of hole is primarily critical and tends not to draw upon the cognitive challenges of hole as highlighted in this argument.

Holes as indicative of theological incompleteness? The mathematician [Kurt Gödel](#) is known -- controversially -- both for his [incompleteness theorems](#) and for his [ontological proof of the existence of God](#). The two incompleteness theorems of mathematical logic establish inherent limitations of all but the most trivial axiomatic systems capable of doing arithmetic.

As noted by *Wikipedia*, the first incompleteness theorem states that no consistent system of axioms whose theorems can be listed by an "effective procedure" is capable of proving all truths about the relations of the natural numbers in arithmetic. For any such system, there will always be statements about the natural numbers that are true, but that are unprovable within the system. The second incompleteness theorem, an extension of the first, shows that such a system cannot demonstrate its own consistency.

There is a degree of relationship between mathematical understanding and theology, highlighted by the argument of [Sarah Voss](#) with respect to the "number" of God (*What Number is God? Metaphors, metaphysics, metamathematics, and the nature of things*, 1995). Rather than any simple understanding of the oneness of God, this highlights the extremely fundamental issue regarding the potential theological implications of contrasting understandings of number explored by mathematicians. These include [zero](#), [negative numbers](#), [rational numbers](#), [real numbers](#), [complex numbers](#), [hypercomplex numbers](#), [hyperreal numbers](#), [transfinite numbers](#), and [transcendental numbers](#). Voss considers the use of transfinite numbers as a way of understanding the infinity with which God is frequently associated. Such an association was an early inspiration for the mathematician [Georg Cantor](#). (Joseph W. Dauben, *Georg Cantor and Pope Leo XIII: mathematics, theology, and the infinite*, *Journal of the History of Ideas*, 1977).

Given both its neutrality and rigour, and its appreciation by both theology and the sciences, there is a case for using mathematics to clarify the challenges to understanding globality of any kind -- whether theologically inspired or otherwise. This points to the potential relevance of "mathematical theology" (*Mathematical Theology: Future Science of Confidence in Belief*, 2011; [Philip J. Davis](#), *A Brief Look at Mathematics and Theology*, 1999; [David Albertson](#), *Mathematical Theologies*, 2014; [Cara A. Tacoma](#), *Implications of Knowing the Infinite for Knowing God: an interdisciplinary study between mathematics and theology*, 2012).

The potential relevance of the incompleteness theorems to systems of theological axioms is discussed by [Carlos R. Bovell](#) (*Ideas at the Intersection of Mathematics, Philosophy, and Theology*, 2012). As argued by a Christian mathematician, [Saburo Matsumoto](#) (*Call for a Non-Euclidean, Post-Cantorian Theology*, *Journal of the ACMS*, 2006) with respect to non-Euclidean geometry, set theory, and Gödel's Incompleteness Theorem:

All of these have been developed in the last 200 years, after most of the foundation of today's orthodox or reformed theology was established and solidified. I maintain that these recent discoveries in mathematics can and should make non-trivial contribution in the field of theology so that one can better understand certain biblical and theological concepts. Theologians should then revisit their discipline with the philosophical and logical implications of these mathematical ideas.

The argument to be made here however is the value of holes as being indicative of incompleteness. In contrast with the amorphous reference to "incompleteness", use of "holes" may offer a way of recognizing and discussing patterns and configurations of incompleteness in theological systems. As a focus for belief, **the integrative completeness and coherence of a theological system can then be recognized as necessarily "full of holes"**. These may usefully be understood as being either matters about which little can be meaningfully said (according to the arguments of [apophasis](#)) or domains best understood as "blind spots". Neither detracts from the coherence with which fundamental engagement may be possible. However both are indicative of problematic domains potential characteristic of more superficial understanding or premature closure -- whether from a theological perspective or in interaction with social issues.

Holes as blind spots: With respect to blind spots, a useful summary is offered by [Alec A. Schaerer](#) (*A General Methodology for Reconciling Perspectivity and Universality: applied to the discrepancy between theoretical economics and eco-social reality*, *International Journal of Transdisciplinary Research*, 2008):

Any separative gesture produces a blind spot that embodies the 'inverse' of the implied content vector. For example, observation can observe everything except its act of observing, or measuring can never be measured, if only because any type of measuring requires an element or act of comparison, as nature offers no strictly immutable basic elements or constants. Even Planck's action quantum, or the 'velocity of light', are no strict absolutes, but the result of measuring as a type of access to reality as a whole that inevitably induces paradoxes. Especially logicians such as [Francisco Varela](#), [Gotthard Guenther](#) or [Heinz von Foerster](#) discovered that the blind spot cannot be discovered within a conceptual system that installs a separative gesture: through the system one cannot 'see' what it cannot make distinguishable.

One is unable to discern that it cannot make distinguishable what it cannot make distinguishable, namely the paradoxical pattern that the conceptual system, by explicitly splitting up the universe between itself and everything else, must on the one hand be distinct from this distinction, while on the other hand it must exist implicitly within the distinction as part of totality and hence as an object of investigation. In this paradoxical situation, observing other observers in their activity of observing can look like a helpful move, but the blind spot can on principle never be overcome, it can only be shifted around into ever new aspects. [Luhmann](#) addresses it eloquently in his version of systems theory... . But by axiomatically postulating something signified that is preconstituted (namely the structure of being a system) while promoting the blind spot as just the type of form that allows differences and causalities to be formulated, he justifies the primal tangle and can therefore develop no solution on principle.

The theme has been extensively developed by [William Byers](#) (*The Blind Spot: Science and the Crisis of Uncertainty*, 2011). This discusses why faith in scientific certainty is a dangerous illusion, and how only by embracing science's inherent ambiguities and paradoxes can its beauty be appreciated and its potential appropriately harnessed.

Cognitive and experiential black holes

Whereas the star has been considered a trouble-free inspiration for religions and theology (as noted above), the implications of astrophysical understanding of black holes has evoked a degree of debate, most notably amongst Christians of non-Catholic persuasion (Robin A. Brace, *Black Holes: Entrances into Eternity?* *UK Apologetics*, 2006; Kannea Suntzu, *There's a theological problem with black holes* *Turing Church*, 9 October 2013; Peter Joseph Fritz, *Black Holes and Revelations: Michel Henry and Jean-Luc Marion on the Aesthetics of the Invisible*, *Modern Theology*, 2009; Lawrence Terlizzes, *On Black Holes and Archangels*, *Probe Ministries*, 6 October 2014; Benjamin J. Wetzel, *Is Calvinism a Theological Black Hole?* *Break Point*, 4 March 2014).

Religion is readily itself is criticized through using black hole as a metaphor (Stephen Law, *Religion, and intellectual black holes*, 7 February 2008; Judith Haney, *The Black Hole of Religious Obsession*, *USNewsLink*, 29 December 2004). One curious aspect to the debate has been the suggestion that their existence is indicated in the *Quran* (Magdy Abd Al-Shafy, *What does the Holy Quran say about black holes?* *answering-christianity.com*; *Black Hole Properties mentioned in the Quran*, *scienceforums.net*, 9 December 2013; Dave Gamble, *Today's daft claim: "Black Hole discovered in Quran" Nope*, *Skeptical Science*, 18 December 2012).

Black holes are of course most widely used as a metaphor with respect to finance. It is defined by the *Financial Times Lexicon* as: *A business activity or product on which large amounts of money are spent, but that does not produce any income or other useful result*. By extension this has been applied to understanding of the global financial condition, notably by quantum physicist Seth Lloyd (*The Black Hole of Finance*, *Edge*, 2013):

At the level of metaphor, the financial implosion of an investment bank resembles the formation of a super-massive black hole in the early universe. A giant star, a million times the mass of our sun, burns through its nuclear fuel in a few tens of thousands of years. After it has consumed its nuclear fuel, it can no longer generate the heat and pressure required to fend off the force of gravity. Unable to support its own weight, the star collapses. As it implodes, it blows off its outer layer in an explosion moving at the speed of light.

In contemplating the financial wreckage, I realized that the similarity between financial collapse and gravitational collapse is not merely a metaphor. In fact, it is possible to construct a mathematical theory that applies equally to gravitational collapse and to financial collapse. The key ingredient is the existence of negative energy: in both Newton's and Einstein's theory of gravity, the energy in matter is positive, but the energy in gravity is negative. In the universe as a whole, the positive energy of mass and kinetic energy is exactly counterbalanced by the negative energy of the gravitational field, so that the net energy of the universe is effectively zero.

Theological black holes? Less evident is the sense in which the complexity attributed to a black hole has been used to enrich understanding of theology and spiritual experience -- other than as a regrettable cognitive aberration (in contrast to the assumed simplicity of a star). Characteristics meriting attention, if only as metaphors, are:

- a black hole is a region of spacetime where gravity is so strong that no particle or light ray entering that region can ever escape from it
- the boundary of the region from which no escape is possible is called the [event horizon](#).
- although crossing the event horizon has enormous effect on the fate of the object crossing it, it appears to have no locally detectable features.
- in many ways a black hole acts like an ideal [black body](#), as it reflects no light
- black holes of stellar mass are expected to form when very massive stars collapse at the end of their life cycle. After a black hole has formed, it can continue to grow by absorbing mass from its surroundings.
- despite its invisible interior, the presence of a black hole can be inferred through its interaction with other matter and with electromagnetic radiation such as light.
- by contrast, in general relativity, a [white hole](#) is a hypothetical region of spacetime which cannot be entered from the outside, although matter and light can escape from it. In this sense, it is the reverse of a black hole, which can only be entered from the outside, from which nothing, including light, can escape. The cognitive implications have notably been explored by [Peter Russell](#) (*White Hole in Time: our future evolution and the meaning of now*, 1992)

The sense of there being a [supermassive black hole](#) at the centre of every galaxy has evoked some speculation from a religious perspective. More provocative is the sense in which every belief system of any massive appeal is centered on cognitive and information processes that can be instructively articulated in through the terms of astrophysicists (*Towards an Astrophysics of the Knowledge Universe: from astronautics to noonautics?* 2006; *Entering Alternative Realities -- Astronautics vs Noonautics: isomorphism between launching aerospace vehicles and launching vehicles of awareness*, 2002).

Holiness and unholiness -- an unholy complementarity?

In the light of the above arguments, it is appropriate to question why holes are primarily deprecated as problematically negative in some way -- as with the black holes of finance. This tendency can be fruitfully challenged in terms of the above framework by consideration of the "unholy" -- as might otherwise be considered desirable as a hole-free condition.

Holes and unknowing: As framed above, holes can be fruitfully understood in terms of unknowing -- irrespective of simplistic deprecation of ignorance.

This suggests that:

- Holes are a requirement of holiness by framing the perspective from which one knows that one does not know.
- Holiness is the artful organization of knowing that one does not know together with not knowing that one knows
- Holiness is the (quest for the) creative organization of ignorance

Of more strategic relevance at this time, **the optimum response to the global problematique may lie in the creative organization of not knowing what to do -- rather than in systematically pretending the contrary**

With respect to the above-mentioned arguments of Ronald Atkin, the issue may be one of managing the relation between knowing and unknowing &&&

Unholiness exemplified? Unholiness might then be best understood as an excessive degree of closure -- even closed-mindedness -- perhaps as a form of obsession with complete explanation (Arie W. Kruglanski, *The Psychology of Closed Mindedness*, 2014). This could be understood as claiming to have answers to any question -- with the implication that no questions remain answered. Both science and religion offer examples of this, despite carefully crafted to the contrary. The issue can be framed diagrammatically (*Sustaining the Quest for Sustainable Answers*, 2003). The framing is of course to be contrasted with **open-mindedness** (Jeremy E. Sherman, *Absolute Open- or Closed-mindedness: beyond a shadow of a dot*, *Psychology Today*, 12 August 2009).

Given the horror evoked at the time of writing by the so-called **CIA Torture report**, and the vigorous defence of the processes used by those variously complicit, there is a case for reviewing the arguments of one of those held to be most associated with those policies. As former US Secretary of Defense, **Donald Rumsfeld** is on record for firmly declaring in relation to knowing about the occurrence of torture at Guantanamo Bay:

We know that torture is not occurring there. We know that for a fact. We have enormously responsible people who are managing that situation. (*Secretary Rumsfeld Radio Interview with the Jerry Agar Show*, U.S. Department of Defense, 2 March 2006)

This assertion may in future be compared with the much analyzed statement by US President **Bill Clinton**: "*I did not have sex with that woman*" (*Sex, lies and impeachment*, *BBC News*, 22 December 1998). Both would seem to be associated with issues explored by Paul Ormerod (*Why Most Things Fail: evolution, extinction and economics*, 2005) and Karen A. Cerulo (*Never Saw It Coming: cultural challenges to envisioning the worst*, 2006). At a press conference, the UK Tory Party leader David Cameron stated: *We are debating something that we didn't do, we weren't going to do and even if we did do it, would have been undone* (*TimesOnline*, 22 May 2007).

Rumsfeld might then be understood as complicit to an unknown degree in unholiness of the more extreme and abhorrent kind. The example is especially valuable, given this actions were undertaken under oath and in the name of a country held to be especially blessed by God.

Holes as known unknowns or unknown knowns? Ironically, but perhaps appropriately for the times, Rumsfeld continues to be cited for his prescience in strategic and security circles due to his succinct articulation of the challenge of what may be known with any confidence in a world of increasing uncertainty.

His formulation famously took the form of a "poem" -- on *The Unknown* -- presented during a Department of Defense news briefing on 12 February 2002. The insight has been most recently used in an analysis by Nathan Freier (*Known Unknowns: Unconventional 'Strategic Shocks' in Defense Strategy Development*. Strategic Studies Institute, U.S. Army War College, November 2008). Aspects have been variously explored previously (Sylvain Bromberger, *On What We Know We Don't Know: explanation, theory, linguistics, and how questions shape them*, 1992).

The "poem" is presented on the left below. With due apologies to Donald Rumsfeld, an adapted version of that "poem" is presented here on the right -- on *The Undoing* -- as developed previously (*Unknown Undoing: challenge of incomprehensibility of systemic neglect*, 2008).

| <i>The Unknown</i> | <i>The Undoing</i> |
|--------------------------------------|-----------------------------------------------|
| As we know, | It is to our undoing that, |
| There are known knowns. | There are things unfortunately done. |
| There are things we know we know. | These are things we knowingly do. |
| We also know | We also leave undone |
| There are known unknowns. | Things that ought to be done. |
| That is to say | That is to say |
| We know there are some things | We do some things unknowingly |
| We do not know. | Without knowing what we don't do. |
| But there are also unknown unknowns, | But there are also things unknowingly undone, |
| The ones we don't know | The ones we don't know |
| We don't know. | We are undoing. |

Undoing: The "poem" on *The Undoing* was originally presented on the occasion of publication of the conclusion of an 18-month investigation by the bipartisan **United States Senate Committee on Armed Services** to the effect that Rumsfeld's approval of aggressive interrogation methods in December 2002 was a direct cause of abuses that began in the **Guantánamo Detention Camp** and spread to

Afghanistan and Iraq.

The abuses culminated in the [Abu Ghraib prisoner abuse scandal](#) in 2003, where Iraqi detainees were found to have been forced into naked pyramids, sexually humiliated and threatened by dogs (Ed Pilkington, *Senators accuse Rumsfeld over abuse of detainees*, *The Guardian*, 12 December 2008; Greg Miller and Julian E. Barnes, *Rumsfeld blamed in detainee abuse scandals*, *Los Angeles Times*, 12 December 2008; David Morgan, *Senate report ties Rumsfeld to Abu Ghraib abuse*, *Reuters*, 11 December 2008).

Infallibility vs. Fallibility: Of particular relevance to the status accorded to the Pope, or to any other Holy Father, is any sense that [infallibility](#) as an unquestionable characteristic of holiness. Catholic theologians have been especially attentive to the conditions under which infallibility and fallibility obtain. [Papal infallibility](#) is a dogma of the Catholic Church that states that the Pope is preserved from the possibility of error: *When, in the exercise of his office as shepherd and teacher of all Christians, in virtue of his supreme apostolic authority, he defines a doctrine concerning faith or morals to be held by the whole Church.*

As with "undoing", any fallibility on the part of the Pope can be usefully associated with a hole. Infallibility might then be associated with a form of unquestionable closure -- sanctioned by theology and the scriptures, as with [Biblical infallibility](#).

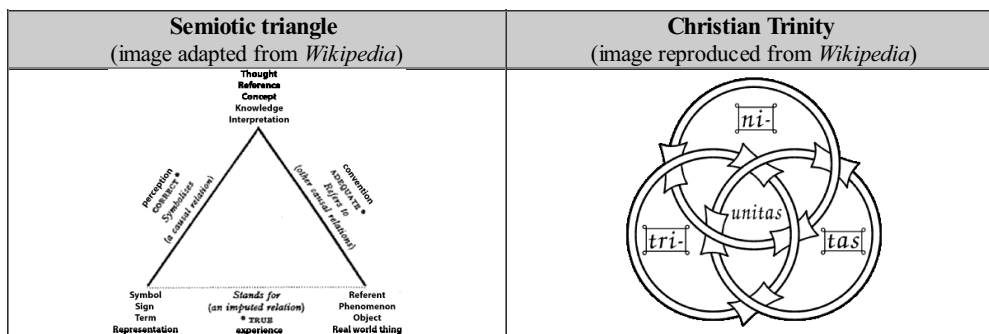
Holes as ignorance: Aside from unknowing, holes can also be deprecated as either the absence of knowledge or as fundamental inadequacies in a pattern of argument (as noted below). As [avidya](#), it notably features in both Buddhist and Hindu philosophy. As with unknowing however, [ignorance](#) can be creatively explored and appreciated ([Sociology of Ignorance: Resources](#); [Ignorance management](#); Gerd Gigerenzer, *Law of Indispensable Ignorance*, *Edge*, 2004; *International School of Ignorance?* 1996). A valuable review is offer by [Nicholas Rescher](#) (*Ignorance: on the wider implications of deficient knowledge*, 2009).

Appreciative quotations regarding unknowing can be applied to ignorance and vice versa (; Donald Kennedy and Colin Norman, *What Don't We Know? Science*, 309, July 2005; Federico Mayor, *What do we not know?* UNESCO, 1995). Especially interesting is how this may be (knowingly) appreciated as incomprehension (*Living with Incomprehension and Uncertainty: re-cognizing the varieties of non-comprehension and misunderstanding*, 2012).

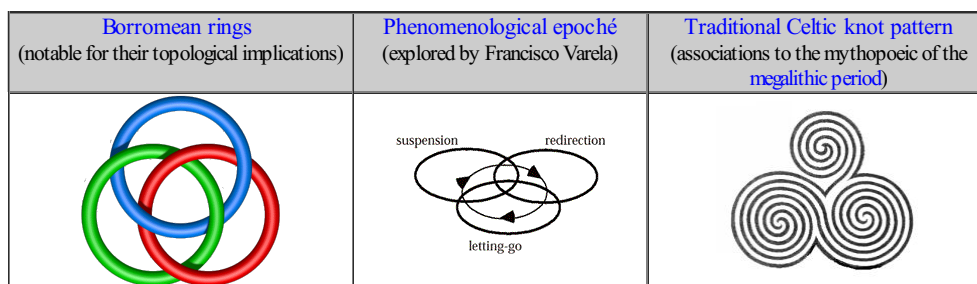
In contrast to widespread use of "holoverse" and "holoversity", the above argument suggests the possibility of exploring "holiverse" and "holiversity". Aspects of the latter are explored in the case separately made (*University of Ignorance: engaging with nothing, the unknown, the incomprehensible, and the unsaid*, 2013).

Holiness framed by a triangulated configuration of holes

Framing a hole? It is intriguing that triadic frameworks are characteristic of the most fundamental doctrines of many religions, most notably the [Trinity of Christianity](#). Understood as forming a triangle, as they may well be depicted, of interest is the singular nature of the hole thereby implicitly defined -- necessarily to be assumed as being an even greater challenge to comprehension -- if only as suggested by the argument of Atkin (above).



The following images are variously discussed separately ([Hypercomputing as imaginative enactment](#), 2014; [Embodiment: how "one" engages with reality](#), 2009; [Engendering holistic integration: Borromean knots and Klein bottles?](#), 2010), in particular with respect to [Cognitive Cycles Vital to Sustainable Self-Governance](#) (2009).



A remarkable triadic pattern was developed in the period 1970-72, by Jon Jenkins and Maureen Jenkins (*The Social Process Triangles*, 2001), in support of the strategic initiatives of the [Institute of Cultural Affairs](#) as separately described and illustrated (*Collective strategy-making: designing a strategic array*, 1994). An overview is presented through the following triangle, the dynamics of whose component triangles are further articulated elsewhere.

Principal Social Process Triangle
(within which are nested 39 analogous triangles, with similar detail, and variously interrelated)



Necessarily, as framed by the above images, **the central "hole" is not what it seems -- nor as it might be simply imagined.** So framed, it recalls the challenge of comprehending the dynamics of the **wormhole** of astrophysics, or the "rabbit hole" of *Alice in Wonderland* (1865), as discussed separately (*Now as the Ultimate Cognitive Strange Attractor: a continuing invitation "down the rabbit hole"?* 2014), and the theme of a widely disseminated multimedia presentation (*What the Bleep! Down the Rabbit Hole*, 2006).

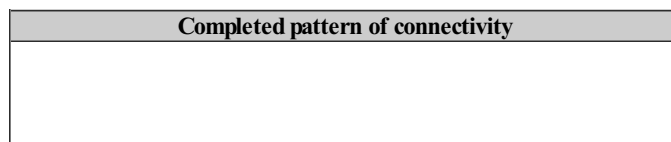
Triangulation: The preoccupation here with **triangulation**, as a form of minimal configuration, follows from earlier discussions (*Triangulation of Incommensurable Concepts for Global Configuration*, 2011; *Spherical Configuration of Categories to Reflect Systemic Patterns of Environmental Checks and Balances*, 1994). These note the focus of **R. Buckminster Fuller** who argued extensively for the fundamental importance of triangulation as the basis for the stability of structures, notably with respect to his application of spherical triangulation to geodesic domes (*Synergetics: explorations in the geometry of thinking*, 1975). He demonstrated the need for **omnitrangulation** as a fundamental requirement of system integrity:

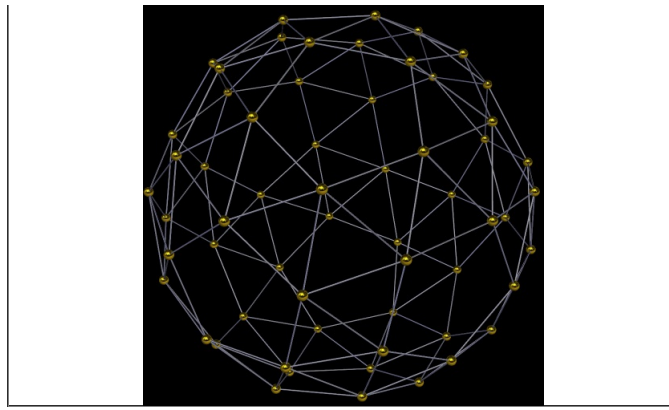
Not until we have *three* noncommonly polarized, great-circle bands providing omnitrangulation as in a spherical octahedron, do we have the great circles acting structurally to self-interstabilize their respective spherical positionings

Also noted is the triadic clustering of concepts, particularly in relation to political order, as explored by **Paris Arnopoulos** (*Sociophysics: cosmos and chaos in nature and culture*, 2005). Elsewhere Arnopoulos explores the possibility of a "neoethics" -- which might be said to be a characteristic of a New Renaissance (*Nova Magna Moralia -- physics-ethics-politics: neoclassic concepts for postmodern times, Skepsis: a journal of philosophy and interdisciplinary research*, 2002-3). Following his earlier work, he emphasizes a trilateral pattern of global morality combining physics, politics and ethics: physics because nature is the underlying context of global existence, politics because culture is the highest creation of human evolution, and ethics because it provides the conjunction between the other two.

| Animations indicative of different patterns of connectivity in a spherical configuration (all animations below were prepared using Stella Polyhedron Navigator) | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------|
| Unconnected ("axioms") | Triangles (of "axioms") only | Incomplete connectivity |
| | | |

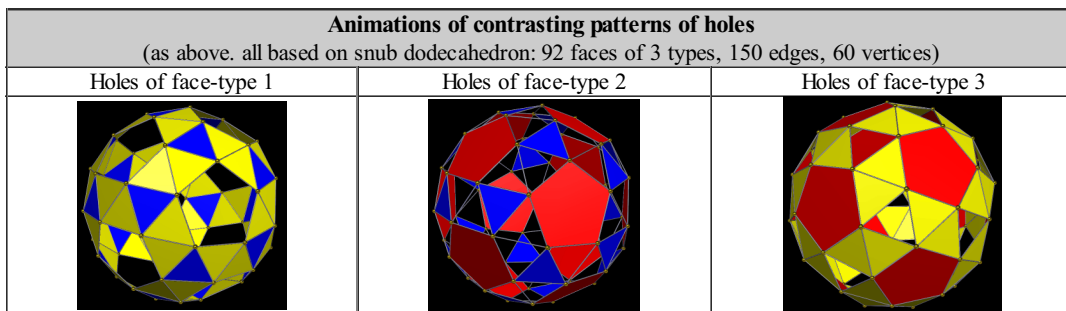
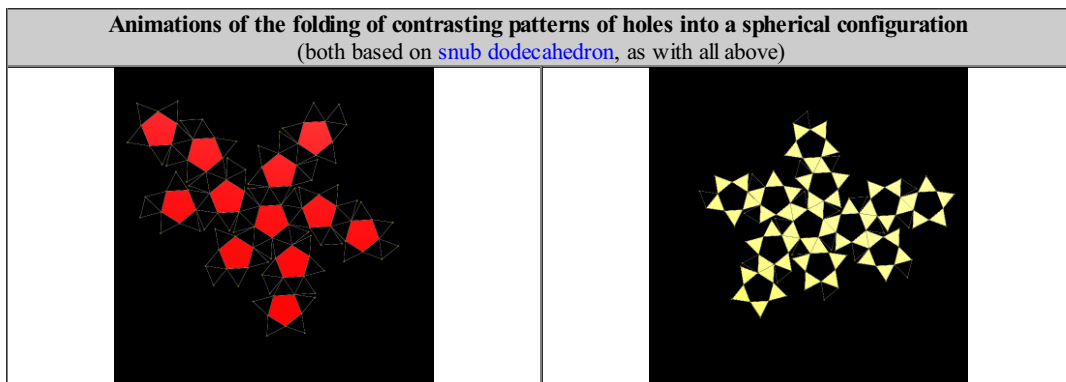
The empty faces of the polyhedron above (and below) can be considered indicative of not knowing and ignorance. The left-hand image above offers one sense of the famed *Cloud of Unknowing* -- long a mystical inspiration. The filled faces of the polyhedron below are indicative of facets of knowledge -- the known -- variously connected. The centre image results from rendering visible one edge type, and two in the left-hand image. [NB: Animations at a lower rate of rotation would be preferable, but require a larger file size in order to minimize jerkiness]





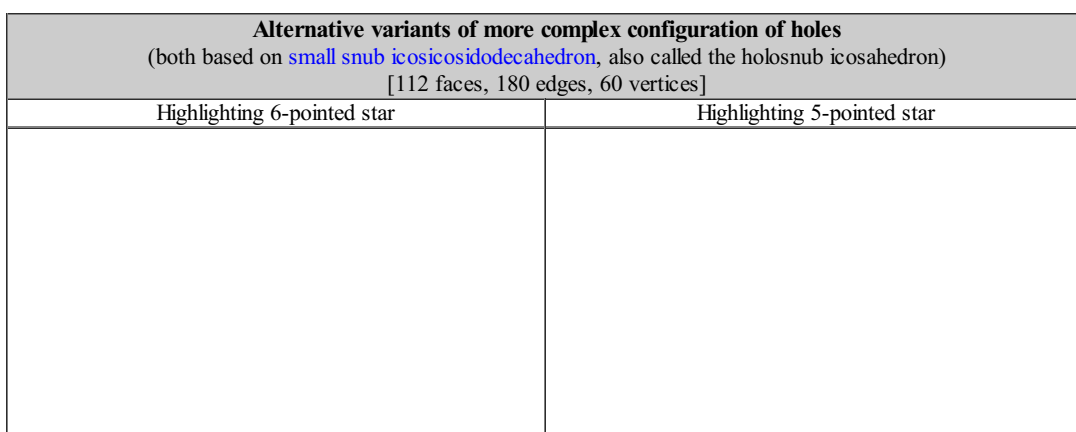
The animation above could be understood as an indicative representation of [Indra's net](#) as used to illustrate the concepts of emptiness, dependent origination, and interpenetration in Buddhist philosophy and Hinduism. It has been used by Douglas Hofstadter (1979) as a metaphor for the complex interconnected networks formed by relationships between objects in a system. The connected vertices could also be understood as the pearls described in a book of geometry (David Mumford, et al., [Indra's Pearls: the vision of Felix Klein](#), 2002) of which it is traditionally said:

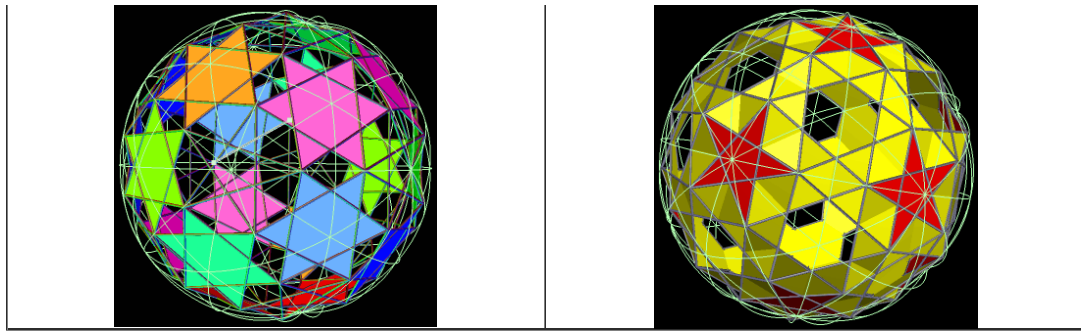
In the glistening surface of each pearl are reflected all the other pearls ... In each reflection, again are reflected all the infinitely many other pearls, so that by this process, reflections of reflections continue without end.



It could be usefully asked whether the distinctive patterns of holes above are indicative of the kinds of distinctions between the three Abrahamic religions -- with the coherence of each being characterized by a distinctive configuration of holes.

Complementarity and incommensurability: The following animations were developed in an earlier argument regarding [Engaging with Insight of a Higher Order: reconciling complexity and simplicity through memorable metaphor](#) (2014)

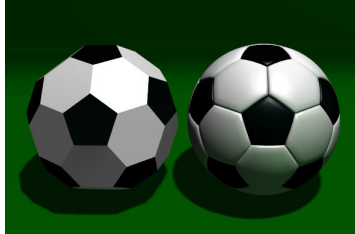




The patterns of holes in the animations immediately above are especially interesting in the light of a separate exercise in configuring together the "incommensurable" 5-fold [Star of Islam](#) with the 6-fold [Star of David of Judaism](#). Both symbols appear on flags of the nations having those distinct faiths (*Middle East Peace Potential through Dynamics in Spherical Geometry: engendering connectivity from incommensurable 5-fold and 6-fold conceptual frameworks*, 2012).

In that earlier exercise the configuration was based on the [truncated icosahedron](#), one of the 13 Archimedean polyhedra. As noted there with respect to global governance, considerable irony lies in the fact that that polyhedron is characteristic of the white-and-black stitching pattern of the classic association [football](#) as shown below.

Comparison of truncated icosahedron with association football
(reproduced from [Wikipedia entry](#))



The higher order of insight required to transcend the Middle East cycle of violence may lie in the capacity to alternate between the two configurations of holes in the animations above -- then understood to be complementary. Consideration could of course also be given to insight from the far wider range of polyhedra that can be are engendered.

Is there a requisite complexity to the pattern of holes -- potentially assumed to call for "cover-ups" -- to ensure viable global governance, otherwise presented too simplistically, as separately argued (*Ungovernability of Sustainable Global Democracy?* 2011).

Cultivating "holiness" and "unholiness" in all their forms?

The following subheadings are presented to raise questions about understandings of "holiness" and its cultivation in a variety of domains. Use of "hole" as a metaphor might well be challenged. However, to the extent that it is widely recognized as intuitively appropriate, it enriches appreciation of "holiness" and the potentially problematic condition of "unholiness". The puzzle is why the metaphor is so appreciated.

Why the fascination with holes from the youngest age? Why the desire to create them? Why is the metaphor valued with respect to such a variety of intangible experiences?

As framed by a ring, why their fundamental role in such a wide variety of settings whether symbolic or otherwise (*The-O ring: Theory, Theorem, Theology, Theosophy? a playful intercultural quest for fruitful complementarity*, 2014; *Implication of Toroidal Transformation of the Crown of Thorns: design challenge to enable integrative comprehension of global dynamics*, 2011).

It is interesting to note the ambiguities of the play between holiness and unholiness in many of the domains, as suggested by the following.

| Interplay of holiness and unholiness | | |
|---------------------------------------------|-----------------------------------------------|----------------------------------------------|
| | "unholiness" (as systemic closure) | "holiness" (as systemic openness) |
| integrative | integrity through closure | participative integrity |
| disintegrative | unholiness through loss of integrity | holiness as fragmentation |

The relationship is potentially more complex to the extent that there is a dynamic between integrative and disintegrative (as with spring and autumn), or between opening and closing (Orrin E. Klapp, *Opening and Closing: strategies of information adaptation in society*, 1978).

Spiritual and experiential "holiness": The aspiration to holiness is central to many religions and a theme of a range of spiritual writings, notably Christian (Christie Loney, *Destination Holiness*, 2010; Keith W. Drury, *Holiness for Ordinary People*, 2004; Derek

Tidball, *The Message of Holiness*, 2010). Such aspiration may be variously deplored: the "holiness" of one being readily framed as "unholiness" by another -- as superficial, meaningless, or totally misguided.

Use is widely made of the phrase "being in a hole", specifically with reference to psychological experience (including depression), or to experiences which reinforce it (a life situation, debt, or variously incarcerated) -- even deliberately, as a means to holiness (*Enlightening Endarkenment: selected web resources on the challenge to comprehension*, 2005).

A particular sense has been offered by Rowan Williams (*After God: how to fill the faith-shaped hole in modern life*, *New Statesman*, 8 July 2014).

Loss of a specific memory is commonly experienced and described in terms of a "memory hole". Lyrics readily refer to the experience, notably in relation to "burning a hole". The phrase has been used in description of migraine:

It is not that half the world mysteriously disappears, but that I find myself in doubt as to whether it was ever there. There seems to be a sort of hole in my memory and mind, so to speak, a hole in the world; and yet I cannot imagine what might go in the hole. There is a hole and there isn't a hole -- my mind is utterly confounded. (Oliver W. Sachs, *Migraine: understanding a common disorder* (Oliver W. Sachs, *Migraine: Understanding a Common Disorder*, 1985, p. 70)

Also of relevance is the often intense experience of missing a person, namely a sense of absence (possibly following death), readily described as a "hole" in one's life. The feeling may extend to a group of people -- as with close friends lost in a disaster. With respect to collective memory, various authors have described a **memory hole**, following George Orwell. (John Pilger, *How Truth Slips Down The Memory Hole*, *New Statesman*, 2007).

"Holiness" and health: Through "wholesome", aspirations to health are readily associated with holiness as its epitome -- possibly explored as "wholth" in relation to spiritual experience (*Wholth as Sustaining Dynamic of Health and Wealth: cognitive dynamics sustaining the meta-pattern that connects*, 2013).

Health may be undermined by holes of various kinds -- most notably those in the heart. Holes in the body may of course be deliberately engendered through violence (as discussed below).

Integrative "holiness": Holiness, however it may be related to spiritual aspirations, is a theme of integrative exploration -- perhaps with respect to wholes, holons and holism, as separately profiled (*Integrative Knowledge Project*). This has been remarkably reviewed by Jennifer Gidley (*A Macrohistorical Planetary Tapestry: the fascinating integral narratives of Steiner, Gebser and Wilber*. 2007; *The Evolution of Consciousness as a Planetary Imperative: an integration of integral views*. *Integral Review: A Transdisciplinary and Transcultural Journal for New Thought, Research and Praxis*, 2007). How indeed is integrative understanding engendered and sustained?

Of related interest is the quest by physics for a Theory of Everything -- potentially to be understood as a form of "holiness" (and the basis for **unified science** as a form of Holy Grail). The questionable success of these quests, as framed, suggests that other parameters merit consideration (*Embodying a Hypercomplex of Unhygienic Nescience: questionable connectivity enabling apprehension of matters otherwise*, 2014).

Any systemic closure provided by such a theory could however also be usefully considered as a challenging exemplification of "unholiness" -- with its closure constraining future cognitive development.

"Holiness" in ball sports: Holes play a significant role in ball sports where the objective is frequently framed as getting the ball into a hole. A hole is intimately related to the signifiacnce of a target. Supreme appreciation may be associated with a "hole in one". [The phrase "ace in the hole" is used in *stud poker* in which there is one unknown card called the "hole card" -- the optimum "hole card" being an ace (Ron Holland, *Putin: It Is Time to Play Your Ace in the Hole*, *Information Clearing House*, 28 December 2014)]

Use of balls in this way is understood in competitive terms as "scoring" -- and possibly as marking or "making a point". As a consequence "scoring" is borrowed as a descriptor of (male) sexual conquest, for obvious reasons. The achievement in relation to the hole -- whether a goal or otherwise -- has remarkable integrative implications experientially. These are especially evident in spectator appreciation of football.

Such game-playing, and its preoccupation with scoring, could indeed be said to engender some sense of holiness. This is associated with perception of football as a world wide religion -- possibly even one transcending other individual faiths (Mark Edmundson, *Football and Religion: the odd relationship between God and the Gridiron*, *Time*, 6 November 2014; Kent Babb, *Where college football is a religion, and religion shapes college football*, *The Washington Post*, 29 August 2014; John Wilson, *A Theology of Football*, *The Imaginative Conservative*, 10 February 2012; Jonathan Chaplin, *Football needs a theology of liberation*, *The Guardian*, 31 May 2011; Lincoln Harvey, *The theology of the World Cup: football, evangelism and spoilsports*, *The Tablet*, 27 June 2014)

"Holiness" in argument and explanation: The effort to produce an argument that holds together as a coherent whole might be understood as a quest for "holiness" -- especially in the case of a complex proof in mathematics, or in the quest for a Theory of Everything.

Especially relevant to the points made above, however, is the extent to which it is recognized that an argument may be "full of holes", whether with respect to an explanation, a proof, or as a "tissue of lies". Presumably this derives in part from the sense of missing links in an argument, understood as a **logical non sequitur**, namely as a logical fallacy where a stated conclusion is not supported by its premise. A notable example is provided from a creationist perspective (Jim Bendewald and Frank Sherwin, *Evolution Shot Full of Holes*, Evidence Press, 2004). The phrase is commonly used by climate change sceptics and those that challenge its denial (*The Australian's climate change attack full of holes*, WWF, 1 February 2010). Such recognition is evident with respect to papal declarations (*Pope's*

theory about condoms is full of holes! *Daily Kos*, 17 March 2009).

Official reports of major disasters may be criticized from that perspective (*Official conspiracy theory of 9/11: full of holes*, *DemocraticUnderground.com*; *The 9/11 Commission Report is Full of Holes*, *Canadian Content*, 2004; Joe Quinn, *Preliminary report on the crash of flight MH17 full of holes, just like the plane*, *Sott.net*, 11 September 2014). This is notably a view of the CIA Torture report (*Report full of holes regarding post-9/11 prisoner treatment*, *Times Record News*, 11 December 2014; Jack R. Payton, *"Jfk's" Premise is full of holes: but so was Warren Report*, *Chicago Tribune*, 26 December 1991).

Significantly the role of scientific and parliamentary debate is effectively to "pick holes" in presentations of alternative views. This is equally true of interfaith discourse (*Papal adviser finds holes in new study on abortion and mental health*, *Catholic News Agency*, 29 January 2011). These processes exemplify the vulnerability of aspirations to simplistic consensus (*The Consensus Delusion: mysterious attractor undermining global civilization as currently imagined*, 2011; *Holes appear in story of pope's resignation*, *Stuff.co.nz*, 15 February 2013). It is ironic that reactions to the argument regarding holes of Casati and Varzi (1994) highlight inconsistencies and inadequacies -- to be understood as "holes"? Similarly holes are now being hypothesized in the theories of astrophysicists regarding the nature of black holes.

Why is "hole" so widely appreciated intuitively as a metaphor of choice in this regard? What is the fabric in which such holes are detected?

"Holiness" in strategic marketing: Competitive advantage can be readily framed in terms of a quest for a "hole" in the market (*How To Spot A Hole In The Market Place*, *Entreprette Gazette*, 2 April 2013). "Holiness" is then associated with detection of opportunities to be cultivated and exploited.

Whether the perspective of business or government policy, considerable skill is deployed to disguise or distract from any "holes" in a presentation. In this sense any recognition of "holiness" is intimately associated with risk. The possibility may engender a range of **cover-up processes** -- if there is any implication that undeclared dangers may exist.

The latter process has been evident with respect to the marketing of a variety of politically controversial products, initially claimed to be harmless, but which later prove to be dangerous -- even significantly so. Debates in this respect have been evident with respect to pesticides, pharmaceutical products, foodstuffs, genetically modified organisms, nuclear power, and the like. Characterized by news management and "spin", the process has been notably documented by Naomi Oreskes and Erik M. Conway (*Merchants of Doubt: how a handful of scientists obscured the truth on issues from tobacco smoke to global warming*, 2010).

A major example is offered by the processes relating to mobilizing a coalition for the **invasion of Iraq in 2003** -- subsequently revealed to have deliberately obscured the holes in the argument relating to evidence of weapons of mass destruction (*Destructive Weapons of Mass Distraction vs Distractive Weapons of Mass Destruction*, 2003).

Of particular interest is the degree to which the number of holes can be increased without appearing to detract from the coherence of a strategic argument.

Of particular relevance to the argument above is the possibility of designing a coherent global strategy whilst omitting reference to a central strategic problem, as discussed separately (*Lipoproblems: Developing a Strategy Omitting a Key Problem: the systemic challenge of climate change and resource issues*, 2009).

Of related interest is the role of the **"big lie"** as coined by Adolf Hitler (*Mein Kampf*, 1925) regarding the use of a lie so "colossal" that no one would believe that someone "could have the impudence to distort the truth so infamously". The phrase has been used with respect to 9/11 by Thierry Meyssan (*9/11: The Big Lie*, 2002). With respect to what current policies, may use being made of such a big lie (*Promoting a Singular Global Threat: terrorism Strategy of choice for world governance*, 2002).

Is there any possibility that conventional theological thinking is necessarily based on some form of "big lie", as argued by atheists and as separately considered (*Thinking in Terror Refocusing the interreligious challenge from "Thinking after Terror"*, 2005)?

"Holiness" of governance, legality and regulatory provisions: The quest for the integrity of the global **rule of law** might be framed as a quest for a form of Holy Grail. Reference to "full of holes" is typical of criticism of regulatory provisions:

- *Immigration system is full of holes but can Labour fix it?* *The Conversation*, 16 December 2014,
- Simon Breheny, *Tony Abbott's internet filter is full of holes*, *The Daily Telegraph*, 10 September 2014
- Pater Tenebrarum *European Banks: Still Full of Holes?* *Acting Man*, 4 September 2014)
- *A CDC safety net full of holes*, *Los Angeles Times*, 21 July 2014)

Such criticism implies the presence of **loopholes**, namely an ambiguity or inadequacy in a system. However, in seeking to remove so-called loopholes to ensure such integrity, this could also be understood as a quest for "unholiness". Considerable resources may well have been deviously devoted by special interest groups to building these into legislative measures -- offering a very particular understanding of the cultivation of "holiness". Once promulgated, considerable resources may then be devoted to detecting such loopholes and exploiting such "holiness". This is clearly one problematic association to holes (as mentioned further below).

There is considerable irony to the legal processes underway with regard to the separate criticism of CIA and Vatican complicity in torture. Both parties could be said to be seeking legal loopholes and technicalities whereby the cases could be dismissed -- irrespective of the values they would both claim to share to some degree. The cases may well be dismissed for very similar technical reasons (*Vatican defends its handling of abuse before a U.N. panel on torture*, *Los Angeles Times*, 5 May 2014; *Tortured Reasoning: the UN case against the Vatican*, *Catholic Culture*, 6 May 2014). Both could be readily seen as arguing that the cases made are "full of holes" (*The Problem With the Torture Report: \$40 million, 6,000 pages, and 5 years in the making, the investigation into CIA enhanced interrogation is still full of holes*, *Foreign Policy*, 8 December 2014). Ironically these are described more eloquently by a former Vice President (*Dick*

Cheney Says Senate Torture Report Is 'Full of Crap', *Time*, 10 December 2014).

"Hole" may be used to frame the frustration of policy negotiation (Daniel Kurtzer, *Deep in a Hole: there is no Plan B for the Israelis and Palestinians*, *American Interest*, 12 December 2014; Mike Peacock, *After "get in the hole!", Europe remains in a hole*, *Reuters*, 29 September 2014).

Security "holiness": Any concern regarding security is necessarily focused on the preventive detection of "holes" -- and "plugging" them to ensure the integrity of the system to protect those dependent on it, and vulnerable to the content of leaks. The concern may extend to questions of censorship. As with regulatory provisions, curiously this could be understood as a quest for "unholiness" -- with the highest standards exemplified by [Six Sigma](#).

A complementary attitude is evident in those seeking to attack and penetrate the system in some way through the detection of "holes" -- as is most obvious in the case of cyberwarfare. The latter offers a very technical understanding of the nature of holes and the quest for "holiness".

In both cases the "holiness" of the system is then curiously associated with its integrity. Especially relevant to this argument is the debate regarding the relative merits of participative [open systems](#) (as a form of "holiness") in contrast with closed systems (as a form of "unholiness") -- notably as articulated by [Eric S. Raymond](#) (*The Cathedral and the Bazaar: musings on Linux and Open Source by an accidental revolutionary*, 1999).

Curiously these issues are evident with respect to ["safe sex"](#) and the use of hole-free contraceptives.

"Holiness" of home: As introduced by [J. R. R. Tolkien](#) (*The Hobbit*, 1937): *In a hole in the ground there lived a hobbit. Not a nasty, dirty, wet hole, filled with the ends of worms and an oozy smell, nor yet a dry, bare, sandy hole with nothing in it to sit down on or to eat: it was a hobbit-hole, and that means comfort.*

As a primary focus of family life and personal security, the home may well be experienced and defended as sacred place. Living "in a hole", is however used to deprecate the standard of such a home -- especially in the light of "holes" in the structure exposing inhabitants to the elements. Curiously, as a place of security, the sense may derive from ancestral memories of life in a cave or a hole. The latter sense may be reactivated in infantry conflict situations through use of "foxhole" or "fighting hole" as descriptors of secure [defensive fighting positions](#). Use of hole may also be used with respect to retreat, as in withdrawing into a hole.

"Holiness" of intellectual property: As with security more generally, and with real estate, there is a particular concern with the integrity of intellectual property and "virtual estate". Considerable effort is made to ensure that there are no loopholes through which that property may be exploited or appropriated by others.

Irrespective of any preoccupation with secrecy, in a world faced with global crisis, it is curious to note that there is considerable effort to use copyright provisions to restrict access to critical data, such as that on climate change. This tendency could be seen as a useful caricature of "unholiness", when "holiness" would have been associated with open access to enable creative response.

More curious is the manner in which the literature (academic or otherwise) seeking to frame fundamentally integrative theories is subject to similarly "unholy" provisions -- as with many of the references cited in this document. It could even be said, perhaps appropriately, that there is a strange hole at the core of papers on fundamental physics, as speculatively explored (*Einstein's Implicit Theory of Relativity - of Cognitive Property? Unexamined influence of patenting procedures*, 2007). The [Wright brothers patent war](#) over their effort to restrict use of their early method of aircraft flight control, as with the so-called [War of Currents](#), highlight the curious nature of what is missing in considering the nature of the consensus and innovation by which humanity's resource challenges are to be resolved.

Financial and budgetary "holiness": Extensive reference is made to budgetary "holes" (*The Great Recession Put Us in a Hole: Are We Out Yet?* *Bloomberg*, 27 October 2014; *Central Bankers Deep in a Hole*, *Telesur*, 30 August 2014; *In a Hole: stagnation, default or inflation await, the only way out is growth*, *The Economist*, 24 June 2010).

For modern nations, the quest for a healthy (hole-free) budget may well be associated metaphorically with that for the Holy Grail (*In Quest of Sustainability as Holy Grail of Global Governance*, 2011). As noted above, financial "black holes" are of considerable concern -- especially with respect to credibility and confidence. Clearly the desirability of "unholiness" then highlights the ambiguity.

"Unholiness" of a netherworld? Access to a netherworld, variously characterized, is frequently framed as being via a hole. Whether understood as an underworld (as with Hades), as the destination of a rite of passage, or as a (criminal) domain unconstrained by convention, its characterization in terms of "unholiness" or "holiness" may be essentially ambiguous, as separately discussed (*Enlightening Endarkenment: selected web resources on the challenge to comprehension*, 2005; *Designing Global Self-governance for the Future: patterns of dynamic integration of the netherworld*, 2010).

"Holiness" of women: As might be expected, this focus is characterized by multiple ambiguities -- which are both especially controversial and offer questionable metaphors for other domains. On the one hand women are effectively worshipped as a nexus of the highest values, and perhaps literally so, as evidenced by the controversies regarding worship of Mary by Catholics (Mary Ann Collins, *Mary Worship? a study of Catholic practice and doctrine*, 2001; Gary Zimak, *5 Facts to Ignore Before Accusing Catholics of "Mary Worship"*, *Catholic Exchange*, 11 August 2014).

The [temptations of the flesh](#), so particularly associated with women, are however readily associated with "unholiness" by many religions. Clearly there is a very high degree of male obsession with access to the holes offered by women, especially those they claim to possess - - accompanied by vigorous prevention of such access by others.

The challenge to the male imagination is extensively explored by James D. Stone (*The Vaginal Apocalypse: phallic trauma and the end of the world in Romeo is Bleeding*, In: Gilad Padva, et al. *Sensational Pleasures in Cinema, Literature and Visual Culture: the phallic*

eye, 2014, pp. 169-179):

When a woman is regarded as a hole -- a potential castrator and font of filth -- she can only be made innocuous by being closed up or filled in. As Still comments, *The male Imaginary figures Woman as hole and wants to close her up*. Sartre points out that filling the hole up may result in the man experiencing a "fullness of being" that he lacks when the void remains unfilled: *The ideal of the hole is then an excavation which can be carefully molded about my flesh in such a manner that by squeezing myself into it and fitting myself tightly inside it, I shall contribute to making a fullness of being exist in the world...* We are therefore presented with the subversive idea that certain reductive characterizations of women -- as holes, for example -- have no basis in reality, but are simply the fabrication of fearful males.

Ironically, in terms of the above argument, women of course freely reciprocate the compliment by framing men as "assholes" -- consistent with the significance of "crap" noted above (*The Coalition of the Willy: musings on the global challenge of penile servitude*, 2004).

The interplay of holiness and unholiness is only too evident in the theological strictures of Abrahamic religions -- most obviously with respect to the [rights of women](#), the role of [women in the priesthood](#), and the debate regarding [contraception](#). From such perspectives there is considerable irony to the fact that the male priesthoods of the religions "who rule the world" (despite their differences) all adopt a clothing habit now considered characteristic of those of the other sex.

"Holiness" and the military: Especially relevant to this argument is the manner in which the military enterprise is variously framed as the honourable defence of the highest values, as separately summarized through the association with religion (*Faith-based military action: "Gott Mit Uns"*, 2003). The notion of a Christian "church militant" (*Ecclesia Militans*) has long been cultivated. This is exemplified by the [Crusades](#), initially proclaimed by papal sanction, and notably undertaken by [military orders](#) of Christian knights, including the [Knights Templar](#). A crusade could be said to be framed as an exercise in "holiness" -- as with the Islamic [jihad](#). Millions of children have been exposed to hymns joyously employing military metaphors such as:

[Onward Christian soldiers](#), Marching as to War
With the Cross of Jesus, Going on Before

Ambiguity is especially evident with the use of modern weaponry in which the objective could be described as inserting fatal holes into the body of the opponent -- ensuring "holiness" of another kind. This extends to the use of missiles which curiously echo one role originally framed by Christianity, namely the use of missions.

The sense of the "unholiness" of warfare has however long been noted (David Martin and Peter Mullen (Eds.), *Unholy Warfare: Church and the Bomb*, 1983). Whether by contrast to Christian initiatives or otherwise, this sense is now used to frame the understanding of [jihad](#) (Faisal Al Yafai, *The Unholy Wars of Global Jihad*, *The National*, 2 October 2014; John L. Esposito, *Unholy War: terror in the name of Islam*, 2003). There is of course great irony in terms of the above argument with respect to ambiguity regarding "unholiness" -- in the sense in which [jihad](#) is a quest for integrity, free of the questionable sense of "holiness" of which others are accused.

"Holiness" in aesthetics, design and lifestyle: In the form of a *non sequitur*, a hole (as a literary device) may be used as an irrelevant, often humorous comment to a preceding topic or statement. Confirming the intuitive appeal of "hole", it is surprising to note the various forms of popular music deliberately highlighting the metaphor (*Sky Full of Holes*, 2011; *Man Full of Holes*, 2012; *Pockets Full of Holes*, 2014; *Full of Holes*, 2012; *Life Full of Holes*, 1995; *Heart Full of Holes*, 2014; *Down in a Hole*, 1992).

Perhaps more indicative of experiential reality is the recognition that life may be characterized by a highly questionable form of "holiness" (Driss ben Hamed Charhadi and Paul Bowles (*A Life Full of Holes*, 1999). This points to the challenges of navigating between the worlds of "holiness" and "unholiness", metaphorically understood (*Living as an Imaginal Bridge between Worlds: global implications of "betwixt and between" and liminality*, 2011).

Of particular interest in the domains above is the degree to which the number of holes can be maximized without appearing to detract from overall coherence. This could even be considered a challenge of elegant design, and efficiency use of materials. This is exemplified by [lacework](#) or the stonework of religious edifices (rose windows characteristic of religious edifices ([Church rose windows](#), [Islamic patterns](#))). This cultivating beliefs in the nature of holes.

"Holiness" phobia: To whatever degree it should be considered of relevance to this argument, there is a case for recognizing the alleged pathological fear of objects with irregular patterns of holes. The condition termed [trypophobia](#) -- to be contrasted with [trypanophobia](#), as the fear of needles -- has been noted by a range of authors (K. Williams Brown, *The improbable horror of clusters*, *Statesman Journal*, 11 December 2010; Elliot Danielle, *Understanding Trypophobia: why some people fear holes*, *CBS News*, 5 September 2013; Geoff G. Cole and Arnold J. Wilkins, *Fear of Holes*, *Psychological Science*, 24, 2013; Joe Palca, *The Inside Story On The Fear Of Holes*. *NPR*, 4 September 2013).

Avoidance of exposure to "holiness" of this kind could be seen as a quest for a form of "unholiness". As explained in terms of existential symbolism by Petronius Jablonski (*Some Call It Trypophobia*, 2013), a hole is a package of nothing, a conspicuous manifestation of non-existence surrounded by existence, the physical occurrence of the two most fundamental metaphysical categories side by side. As such, it raises the ultimate question: Why is there anything at all rather than nothing?



Vital hole dynamic: embracing error, otherness and neglect

The argument above has endeavoured to highlight the challenging cognitive ambiguity of "hole" as it might relate to any assumption of "holiness".

The domains in which the terms are widely used as metaphors are suggestive of the degree to which there is intuitive recognition of a degree of commonality to the strange experiential processes beyond the tangible.

Insights from thinking regarding possible experience in the black holes of astrophysics are valuable, especially with respect to the sense of an event horizon. To the extent that some such analogy may be characteristic of the dynamics at the core of any belief system, black holes as a portal to another universe of experience merit consideration -- in the light of any association with wormholes. There is the possibility that the human ability to conceive of such dynamics in the realms of outer space may derive in part from the existence of analogous dynamics in inner space (Joseph Campbell, *The Inner Reaches of Outer Space: metaphor as myth and as religion*, 1986; Henryk Skolimowski, *The Participatory Mind: a new theory of knowledge and of the universe*, 1994; George Lakoff and Rafael Núñez, *Where Mathematics Comes From: how the embodied mind brings mathematics into being*, 2000).

The challenge of blind spots is also evident -- as with holes in any argument, whether or not these are formed as deliberate lies.

Of particular interest is the spiral dynamic associated with any hole -- as suggested in the case of a black hole, and echoed by cognitive models (Don Beck and Chris Cowan, *Spiral Dynamics*, 1996). There is of course an intuitive recognition of the experience of being "drawn into", or "sucked into, many kinds of hole. The extent to which the hole functions as a form of [gravity well](#) merits reflection -- given other uses of the [gravity model](#) of attraction.

Especially relevant to this argument is the sense in which experience of "being in a hole" is intimately associated with a learning/healing dynamic in relation to the completion with which inspirations to "holiness" are associated. It is in this sense that experience of a hole has a threefold implication:

- **embracing error:** Given the problematic implications of error with respect to any framework, Donald N. Michael argues for *the requirement to embrace error*.

More bluntly, future-responsive societal learning makes it necessary for individuals and organizations to embrace error. It is the only way to ensure a shared self-consciousness about limited theory on the nature of social dynamics, about limited data for testing theory, and hence about our limited ability to control our situation well enough to be successful more often than not. (*On Learning to Plan and Planning to Learn: the social psychology of changing toward future-responsive societal learning*, 1973, p. 131)

- **otherness:** The problematic sense of any "other" can be understood as a challenge to the integrity of any framework which inspires confidence and faith, namely with what is most valued in holiness. Hence the problematic relation of the religions to those who do not subscribe to their particular faith -- namely unbelievers, especially those subscribing to other religions. Whilst highlighted in the case of *jihad*, it is also evident in Christianity (C.H. Spurgeon, *The Sin of Unbelief*, 1855; *12 Sermons: Battling Unbelief, Desiring God*).

Clearly any challenging alternative can be understood as exemplifying unbelief -- fruitfully framed and deprecated by Margaret Thatcher's political slogan: *There Is No Alternative* (TINA). The holiness of one framework can then be understood as engendering the unholiness with which it is associated from another framework (naturally assuming itself to be necessarily holy). The probability of the other being subject to demonization is then only too evident. "Evil" has figured prominently in the discourse of US presidents (Ronald Reagan, *"Evil Empire"*, 1982; Barack Obama, *"Evil does exist in the world"*, 2009). This perspective is naturally reciprocated by those so framed -- with no capacity to transcend this dangerous dynamic.

The unbelief associated with otherness is then usefully explored in terms of a hole in the framework, as discussed above. There is therefore a case for reframing otherness in such terms (*Reframing the Dynamics of Engaging with Otherness*, 2011; *Encountering Otherness as a Waveform: in the light of a wave theory of being*, 2013; *Us and Them: Relating to Challenging Others*, 2009; *Guidelines for Critical Dialogue between Worldviews*, 2006).

- **systemic neglect:** This argument was introduced with reference to the inadequacy of the systemic perspective of the Abrahamic religions and Catholic theology in particular -- a form of thoughtlessness faced with the challenges of global crises (*Unthought as Cognitive Foundation of Global Civilization: implications of God, debt, overpopulation, waste, negligence, encroachment and death?* 2012). The argument above effectively makes a case for recognizing "neglect" as a form of hole in a framework otherwise assumed to be hole-free. Unfortunately this assumption can be usefully associated with the ambiguity highlighted above -- as effectively subscribing to the "unholy".

As with "embracing error", the challenge of encompassing neglect would seem to involve a more systemic understanding of holes, notably understood as a necessary form of incompleteness. The neglect noted above can be usefully understood in terms of "remaindering", as separately argued (*Reintegration of a Remaindered World: cognitive recycling of objects of systemic neglect*,

2011). The [Pacific trash vortex](#) exemplifies this systemic neglect -- and might also be recognized as indicative of a corresponding collective memory hole. As a form of collective memory hole, Exploring configurations of holes, as suggested above, may offer a systemic approach of a higher order, as argued with respect to a more fruitful response to systemic crises (*Dangerous neglect of underlying patterns*, 2008)

Yet to be clarified is the vital cognitive dynamic associated with holes as they may be variously understood, notably in the light of the quality of articulation that has been devoted by physics to black holes. That there now appears to be a form of hole in that thinking (as articulated by some physicists) is consistent with the paradoxical nature of such holes (*Stephen Hawking Thinks Universe Is Not so Holey After All*, 26 January 2014; *Stephen Hawking: 'There are no black holes'*. *Nature*, 24 January 2014).

Missing linking process to enable the global resolutique

As noted above, the argument of Deacon (*Incomplete Nature*, 2012) indicates the fruitfulness of focusing on what is missing. Ironically, "what is missing" could then be described as a form of "missing link" with respect to cognitive and policy issues -- notably those inspired or constrained by faith-based governance. The possibility then explored was that of associating what is missing with the mysterious nature of "holes", following the argument of Casati and Varzi (1994). It was suggested that these could be usefully framed by triangulation -- in the light of many depictions of valued symbolic significance. However, rather than consider these in isolation, the possibility of configuring triangular holes into polyhedral frameworks was then considered. The suggestion made was that coherence was understandably associated with the spherically symmetrical polyhedra (*Geometry of Thinking for Sustainable Global Governance*, 2009).

This offered the implication that the knowns of any conceptual framework could be associated with filled faces and unknowns could be associated with empty faces -- as holes. Of further potential significance was the sense that such polyhedra each framed a hole of even great significance -- usefully related to the emptiness central to a variety of mystical accounts.

The emphasis in this exploration has been on framing a quest for sustaining metaphors, as separately described, notably with respect to a "global resolutique" (*Imagining the Real Challenge and Realizing the Imaginal Pathway of Sustainable Transformation*, 2007). Given the concern with responding in more fruitful ways to global crises, the question is how the argument could engage with theological frameworks which define themselves as inherently coherent and complete -- despite their marked tendency to engender bloody violence over centuries between the faithful. It was suggested that the coherence of any such framework could be understood as associated with patterns of holes -- whose mysterious "existence" would in all probability be necessarily denied.

Presented in this way, this suggests a fruitful play on "holes" in relation to "holiness" and "unholiness" -- the latter constituting a strange complementarity in the light of the significance associated with the exclusive integrity of a closed system in contrast with the sparsity of more inclusive open systems, as in nature.

The question raised by the argument is whether mapping doctrinal certainty onto closed facets of a spherical polyhedron could be understood as framing the attractor of holiness as coherent connectivity -- but with the possibility of recognizing the existence of mysterious holes in that framework corresponding to unknowns and uncertainty, namely to potential fallibility. The animations of a single polyhedron (presented as an example) showed how coherence framed by a set of religions like the Abrahamic could be distinctive as a consequence of different patterns of facets being filled or empty. This would be respectful of a form of commonality but would honour distinctiveness.

This suggests a way of considering doctrinal incompleteness as being essential to a dynamic by which holes of higher dimensionality are framed -- more elusive forms of holiness and integrity enabled by "not knowing". Patterns of holes of this kind are then consistent with the arguments of [Christopher Alexander](#) for a [pattern language](#) (*A Pattern Language*, 1977) and the possibilities of its extension (*5-fold Pattern Language*, 1984).

Holes might then be understood to function somewhat as the [docking sites](#) enabling formation of molecules in biochemistry -- offering scope for connectivity and communication through complementarity. However any purely mechanical understanding of the process needs to be challenged in terms of the paradoxical cognitive experience of holes noted above. The arguments relating to self-reflexivity of [Douglas Hofstadter](#) then merit consideration (*Gödel, Escher, Bach: An Eternal Golden Braid*, 1979; *I Am a Strange Loop*, 2007), as separately discussed (*Sustaining a Community of Strange Loops: comprehension and engagement through aesthetic ring transformation*, 2010).

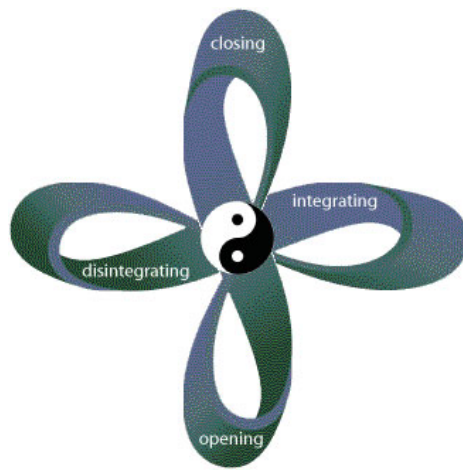
Hofstadter's "strange loop" of self-reflexivity, and the use of metaphor to frame the dynamics of engaging with hole or holy evoke, together raise the question of how one might be identified with either. As provocatively stated by [Kenneth Boulding](#):

Our consciousness of the unity of the self in the middle of a vast complexity of images or material structures is at least a suitable metaphor for the unity of a group, organization, department, discipline, or science. If personification is only a metaphor, let us not despise metaphors -- we might be one ourselves. (*Ecodynamics: a new theory of social evolution*, 1978).

Dynamic linking holiness-hole-unholiness via interwoven Möbius strips ?

Note the animation indicating how two Möbius strips can be combined to form a Klein bottle

Konrad Polthier (*Imaging Maths: inside the Klein bottle*, *PlusMaths*, 31gust 2003)



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