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Emergence and culture: implications for Africa

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Introduction

On the strength of recent trends one is reasonably optimistic about the prospects of Africa becoming the hub of worldwide scientific endeavour. The Square Kilometre Array (SKA) is one such exciting development which should not be seen as a charitable donation to Africa (and Australia) by the saturated West. It has to be seen simply as an excellent indication of the readiness of the continent to invest its financial and human resources in the exciting role of scientific leadership which she is ready to assume. Since 2003, the African Institute of Mathematical Sciences (AIMS) based in Cape Town (with at least three sister institutions in West Africa) has been exposing some brilliant young minds to the best of the scientific world, such as the noteworthy *African Virtual Open Initiatives and Resources (AVOIR)* “initiative that currently comprises software innovation nodes in African universities in Kenya, Mozambique, Senegal, South Africa, Tanzania and Uganda” (Tettey 2006:57).

I belatedly became aware of the inaugural meeting and first international conference of the Society for the Advancement of Science in Africa (SASA), held from 25 to 28 April 2013 and entitled “Pushing the frontiers of science in Africa”. The conference was hosted by the University of Limpopo, Polokwane, RSA. The programme included a refreshingly broad-ranging array of perspectives and questions on matters pertaining to science and Africa. Having been unable to participate in the conference, I nevertheless look forward to the ensuing publication as well as other conferences that should follow. SASA is not to be confused with S2A3 – the South African Association for the Advancement of Science – which has been in operation since 1902/3, forging useful links beyond the continent. In a nutshell, the continent is ready for the scientific explosion as innovative technology permits Africans to venture beyond inherited boundaries. Little wonder then that there is such an unprecedented drive for online studies despite the relatively limited access to broadband resources – the fully online Virtual University of Uganda (launched in 2011) is already one such success story. Examples can be multiplied ad infinitum, and they are by no means restricted to the natural or physical sciences. But perhaps the articulation provided by the NEPAD’s *Africa’s science and technology: consolidated plan of action* (August 2005) is an instructive starting point, partly because it captures the politicians’ appreciation of the signs of the times.

It ought not to be as easy to dismiss Africa casually as it once was. Commentators who choose to associate Africa with war, disease and famine, at the expense of the scientific-humanistic strides which the continent has made in relation to those and other factors, do so in service of untenable agendas. To such prophets, and without ever pretending that the sailing is smooth, the attentive observer cannot help echoing these telling words which were recorded nearly 2000 years ago: *We played the flute for you, but you didn't dance; we sang a lament, but you didn't mourn!* What is it with your indifference and your perennial doubt that anything worthwhile might ever come out of Africa?

Not out of Africa

The extent to which many have found it necessary and easy to pontificate about the controversial topos known as Africa, is quite remarkable. Even more astonishing is the confidence with which they persistently make Africa out to be the negative other of their positive selves. The members of this fairly exclusive club of “self-appointed heirs to the right to reason have thus established themselves as the producers of all knowledge and the only holders of the truth. In these circumstances, the right to knowledge in relation to the African is measured and determined by passive as well as uncritical assimilation, coupled with faithful implementation of knowledge defined and produced from outside Africa” (Ramose 2002a:2). That is the Africa into which many of us who are alive today have been born: an Africa whose horizon has been prescribed as producing and exporting raw materials and consuming materials processed elsewhere; and an African whose circumstances have been forced into moulds prescribed by imported solutions. It is quite legitimate to wonder if any refined thing could ever come from such an Africa.

It is against the backdrop of such an image of Africa that much of recent African generations' scholarly works have emerged, and in these works African scholars have often reacted strongly to this image. Much of the

contestation revolves around what appears self-evident and logical to some, but quite unsettling and unacceptable to others. The habit of ‘Africans identifying science, technology, philosophy and so forth with colonialism (the other)’ frustrates the former while it remains a critical starting point for Africans who want to think postcolonially. While granting that ‘science, philosophy, rationality and thought are human activities and not a Western monopoly’, it remains unambiguous the degree to which ‘scientific’ must be identified with the Western world. After all, science is not ‘neutral’; it is in fact “linked to technology, incorporated into world-views, relevant in societal value systems, implied in religious ideas” (Du Toit 2002:61).¹ Therefore, “Africa may be typified as simultaneously pre-modern, modern and postmodern. We could also say it is simultaneously pre-scientific (traditional), scientific (mainly Western) and post-scientific (critical, integrating many worlds)” (ibid).

Whereas these three cosmologies coexist simultaneously within present-day Africa, the specifically African contribution arises from how the dominant ‘pre-scientific’ will ‘influence scientific development in post-colonial Africa’. Not only can Africans ill afford to bypass the predominantly Western scientific heritage, but it would simply be “unfair to expect that Africans will produce a *different* philosophical or scientific method or come to the fore with *revolutionary* ideas in order to justify their roles as philosophers or scientists. What is specifically African comes to the fore in the way that philosophical, religious, and scientific ideas are *taken into* African cultures” (Du Toit 2002:61, my italics). In other words (and here I oversimplify with the help of a theme that Africans have been wrestling with ever since the onset of Christian missions on the continent), African scientists must endeavour to live politically as Africans and scientifically as Westerners, thus the strong African reaction which collocates science and colonialism!

Given this quandary, not to mention that African thinkers have to negotiate it in borrowed (and thus value-laden) tongues, pitfalls such as perpetuating ethnocentric cultural imperialism persist, along with the obverse, the tendency to essentialise and/or romanticise ostensibly African artefacts. Both insiders and outsiders are vulnerable, and many critical writers have tripped over the very habits that they seek to expose as untoward. Quite apart from the vastness of Africa, the complexities which attend what precisely is entailed by ‘Africa’ or even the investedness of her observers, the gravest contestations are those that surround the African past, present and future. While the African past, present and future assert themselves *in concert* on African observers, they do so – or, rather, are taken in by the observer – quite variably. Whether we are concerned with politics, economics, education, culture or religion, the so-called ‘traditional’ coexists with the colonial as well as the disillusioned² neo-colonial recoded the post-colonial. One of very few things that can be uttered with relative certainty about the African experience is the discord over how Africa’s history, her present realities and her possible futures are to be viewed.

For instance, it is difficult even to agree on whether or not Africa should aspire to catch up on the Western world. Even though ‘the Renaissance and Reformation in Europe’ entailed the “great movements [which] lifted Europe out of a long Dark Ages nightmare and ushered in the processes that have led to the spectacular advances in science and technology upon which our modern European civilization is based”. Michael Jarvis (2009:13-14) concedes that it does not follow that all is perfect in modern Europe. “For instance, the great discoveries of Quantum Mechanics and sub-atomic structures have led to wonderful advances in medicine, but also to increased destructiveness of munitions of war. *Nevertheless*, in spite of the negatives, *it is only this post Renaissance world that has the potential to uplift humanity. It is this scientific and technological civilization, if correctly modified ... that has the potential to lift Africa out of its own Dark Ages* and usher in our longed for African Renaissance” (Jarvis 2009:13-14, my italics).

The apparently innocuous discourse pithily reviewed so far presents at least two problems. First, it precludes the reality of pre-Western African science, philosophy, rationality and thought. Thankfully, in spite of such a “northbound gaze” (Ramose 2002b), pre-‘modern’ human expressions have persisted largely intact in what are today known as primal societies. Part of the agenda of indigenous knowledge systems is geared towards recovering and promoting this hitherto sidelined heritage. To insist therefore that only the Enlightenment framework (one which followed ‘the Renaissance and Reformation in Europe’ is the fundamental starting point becomes self-evidently untenable. Secondly, if science progresses via revolutions or paradigm shifts (Kuhn), why is it inconceivable that the next major revolution could come out of Africa? One would think that hindsight should teach us that nothing is impossible. What has been will be; there is nothing new under the sun. Let me concretise this thinking by means of an astute review of its religious version.

A lesson from Christian history

Christian history supplies absorbing evidence to the notion of regeneration and thus survival by means of shifts that occur at critical points in the life of a living entity. No centre will remain ever hospitable or conducive to

¹ Ramose (2002a:6-7) would concur that “although insights might be similar, they are always ineluctably clothed and coloured by different experiences”.

² “Much of sub-Saharan Africa’s economy continues the colonial legacy of being based on exporting primary agricultural products and importing manufactured goods” (Watson 2013:5).

the thriving of an idea. ‘Derived from the evidence of Christian history itself, the notion of shifts refers to a series of dominant cultural shifts’. The evidence in question entails Christianity's nerve centre, starting out in Palestine, then shifting on to Greco-Roman cities around the Mediterranean, “though it also expanded eastwards into Iran and southwards into Upper Egypt and Ethiopia, where Christianity has remained unbroken till our time” (Bediako 2007:2).

Then, following the sack of Rome and the collapse of the Western Roman Empire, the centre of gravity would shift to the tribal peoples of Northern and Western Europe, whom the Greeks and Romans called ‘Barbarians’ ... In our own time, it is a shift from North to South, from the northern continents of [Western] Europe and North America, or the North Atlantic, to the southern continents of Latin America, parts of Asia and the Pacific, and Africa (Bediako 2007:3).

The ability of this faith to transplant to different contexts in order to ensure its survival is significant, but what must most impress us are the transformations that attend each shift. We are looking here not at mechanical transplantations of a solid system from one location to another.³ Put crudely, Pauline Christianity could not be identical to Petrine Christianity; Antiochan Christianity could not but differ from Jerusalem Christianity; and so forth. In recent epochs, and despite superficial appearances, African Christianities scarcely resemble the Christianities of the European denominations of the sending countries. The changes that accrue to the phenomenon by virtue of its moving from one hub to another are vital to the phenomenon's survival – that is the insight we remember as shifts occur in non-predetermined directions.

Contrary to prescriptions by such well-meaning writers as Jarvis (cited above), the receding centre does not have a major say in how the acceding hub should nurture the evolution of the phenomenon in question.⁴ Forcing Africa to adopt Western ways and worldviews would amount to impoverishment; after all it is those ways and worldviews which have led to the downfall of Christianity in the once-central West.⁵

We all know that the complex intellectual processes that we call the Enlightenment in Europe have something to do with our present situation. By its exaltation of reason over against revelation, of the autonomous individual self over against community and collective consciousness, of the present and so-called modernity over against the past and tradition, the Enlightenment turned much of European traditional thought, informed by Christian teaching and practice, upside down. The Western Christian theology that emerged from that bruising struggle was Enlightenment theology, a Christian theology shaved down to fit the Enlightenment world-view (Bediako 2007:10).

On the contrary, peoples of the southern continents, in the Christian connection, have ‘retained affinities with the living world of the Bible’ and, rather than dismiss the primal will as being ‘pre-modern’ or ‘unsophisticated’, it might prove more productive to concede that “modern conceptual maps used to interpret and understand existence, community and our place in the universe, which are based on a severely pared-down Enlightenment, secular view of life, may need to be revised” (Bediako 2007:4). To seek to tone down the primal vision ensuring the survival of Christianity away from the West amounts to repeating the well-rehearsed mistakes of those earlier Western missionaries who thought that African conversion must go hand in glove with Europeanisation, then also known as civilisation. In this sense, in fact, even talk of *African Renaissance* hardly compliments Africa. “As an historical concept the Renaissance is deeply rooted ‘in Europe’ and has Europe as its primary reference point. Other parts of the world are its secondary reference point insofar as it ramified to them and had an impact on them” (Ramose 2002b:601). Consequently, African Renaissance talk ironically amounts to “denying that the African experience is the appropriate source from which we can choose a key concept to understand and interpret African politics” (Ramose 2002b:600).

Therefore the vital lesson that we glean from Christian history is that “accession and recession”, coupled with geographical shifts – such that “every centre is a potential periphery and every periphery is a potential centre” (Bediako 2007:4) – are a necessary ingredient of any movement that should survive decay or stagnation. In this light, it becomes easier to accept without any discomfiture the reality that (North) Africa once was the global hub of profound scientific activity. When the conditions on the ground become inhospitable to the

³ Readings of history that downplay the role of Africa in the formation of the Hebrew nation, or even in the life of the fugitive Jesus of Nazareth, would make for intriguing dialogue here.

⁴ It is indeed intriguing that while in order to be a good scientist I need to master several European languages, the recent decision by the University of KwaZulu-Natal to ‘force’ students to take a bit more seriously the context in which they are studying has sparked something of a storm in a teacup, especially among certain predictable demographics (author unstated, “Zulu to be compulsory for UKZN students,” 16 May 2013, <http://www.timeslive.co.za/local/2013/05/16/zulu-to-be-compulsory-for-ukzn-students>).

⁵ “After all, it was the mechanical operation of the *intellectual will* that had led England [*and cognates*] down the path of unlife. That same will had similar *plans for Africa*. However, as we shall see, the continent of the *primal will* would not succumb to spiritual mechanism without a struggle” (Atkinson 1991:27, my emphases).

sustenance of a phenomenon, then the time has come for it to seek a new home. But in adopting a new home, it cannot take root if it insists on praxes that are incongruent with or indifferent to those of the new home. In other words, the hospitality of the new home ought not to be taken for granted; the challenges and opportunities it presents have to be handled sincerely. The ethos of the new home is critical to the continued survival of the immigrant phenomenon; it would have disqualified itself if it were fundamentally hostile to the phenomenon.

Against the backdrop that has just been explicated, it emerges that even "the Reformation of the 16th century (involved) in some important respects, a "cultural crossing' ... It involved a cultural crossing of the Christian faith from the 'civilised' and hallowed meanings framed, learned and transmitted only in Latin, to the universe of vernacular mother-tongue meanings inhabited by the northern 'barbarians'" (Bediako 2007:6). Perhaps the insistence by those who once were the centre that new hubs like Africa desperately needs their tutelage stems from their ignorance of their very own history. Clearly the writers of the canonical Gospels got it right when they placed the following recognition on the lips of John the Baptist. The latter's greatness is not diminished by his declaration concerning Jesus of Nazareth: *I must decrease so that he can increase!* In so doing, he did not only rightly interpret the signs of the times, but he guaranteed himself a commendable place in the annals of history; Jesus later openly declared him the greatest of all the prophets who ever lived (even though the least in the Kingdom of Heaven is greater than him).⁶

Checking the control impulse

I am not the most qualified to attempt to tease out those cultural elements of Barbarian cultures that enabled them to serve as enthusiastic hosts of Post-Latin Christianity. In the same breath, I am unwilling to ingratiate the lust for pontificating which does indeed characterise many works about Africa. It is quite tempting to produce *lists* of African values, African cultural attributes, African religious or spiritual virtues, African scientific method, and such. But it could never be *only* the African virtues which will facilitate the emergence of Africa as saviour of the scientific enterprise. Tools and experiences of erstwhile hubs are pertinent, so long as we grant and keep their contextuality in mind; "all claims to scientific and technological knowledge are culturally local, constituted through the cultures and practices of the knowledge projects of which they are part" (Du Toit 2002:66).

So even if I were fortunate enough to isolate *all* the factors that will come into play as Africa emerges as the next hub of global scientific endeavour, how would I go about securing supervenience? That is, how would I go about determining the nature of "relations that the parts bear to one another", not to mention the "relations the parts bear to the whole" (Francescotti 2007:56)? Reality is that 'the biosphere and human culture are ceaselessly creative in ways that are fundamentally unpredictable and presumably non-algorithmic or machine like'; this means that "part of the problem is that we cannot finitely prestate the relevant features of all possible selective environments for all organisms with respect to all their features" (Kaufmann 2006) or cultural elements. What is more, on the one hand, a single reality 'admits of many possible descriptions and explanations' even though not all descriptions and explanations are equally plausible⁷ and, on the other, "the way that we *describe* a causal relationship often plays an equally important role in shaping our scientific explanations as does reality itself" (McIntyre 2007:339-340).

Part of my reticence in enlisting precise attributes to the task of pre-empting what the emergent scientific African giant will look like can thus be explained with reference to the perspective that "traditional African explanatory models, unlike those of [Western] science, are not intended for the control of natural phenomena ... The order of nature is believed to be laid down and it is not subject to change by mortals" (Sogolo 2002, contra Horton), who sees the goal of science as "the explanation, prediction and control of natural phenomena".

Manipulation of nature for the benefit of (selected) mortals does not have much currency in the African scientific worldview. This is a critical methodological consideration. Here the scientist cannot conceive of herself as being separate from the environment. The end always entails harmonious relations across the board. The value of the tree that gets cut for experimental or medicinal purposes is in no way less than that of the one cutting it – each needs the other in order to realise its highest purpose. The roles of tangible and intangible factors in guiding the researcher to the tree which will yield optimal results are integral to the enterprise. In other words, research is a communal affair and expertise is shared in such a manner that even though some will be recognised as leading articulators of the phenomenon under review, the immeasurable contributions of other members of the cosmology are never out of sight at any given point of time. In this connection, the persuasively outlined attributes of African rationality as being holistic, post-colonial, embodied, relational and integrating, as

⁶ I am not incapable of nit-picking from a literary point of view on the biblical passages which I am casually paraphrasing. For now it is simply a question of being drawn more to their spirit than to their letter, lest I digress too far from issues presently at stake. At the same time, I do not anticipate any chastisement from the primal will for this handling of the Christian tradition.

⁷ From an African perspective, Sogolo (2002:195) stresses that to observe that "almost infinite kinds of causal explanations that can be given for a single event" is not inimical to the reality, well known in the African worldview, that often "the different explanations are complementary and non-mutually exclusive".

well as ethnic (Du Toit 2002:62-66) might serve as a valuable connection point. Freedom from scientific endeavour as individual pursuit is only one of the many contributions which unfettered Africa makes to the advancement of science.

Control is never easy to forego, particularly when it comes after centuries of sustained exploitation. But control is the very thing that Africa as the hub of science will most need to let go. To illustrate the enormity of this burden, I shall now employ the example concerning African identity. We have already conceded that past, present and future impulses conjointly confront the African observer at every turn. What Africa used to mean, what it now entails and what it has the potential to signify all vie for the attention of any serious investigator of matters African. And, I submit, it is in letting go of reactionary and vindictive impulses which attend such purviews that the African scientist emerges as a worthy candidate for the embodiment of science. What I am urging might appear as passiveness within the agonistic arena characterised by “an unstable field of language, practice and materiality in which various disciplines, capacities and actors compete for the right to represent near and far term developments” (Brown, Rappert & Webster 2000:5).

The painful past whose letting go is being advised is one wherein both the African landmass (as a whole as well as in its variegations) and the African brain-mass (from both before and after the encounter with the scheming Western world) figured as “a negativity” (Atkinson 1991:34).⁸ “The colonizing of Africa took place at more than a territorial level: Africa became an important mental colony, invested with and settled by numerous myths and figures of considerable semiotic vigor. When a late nineteenth century or early twentieth century writer alludes to Africa or uses it as a metaphorical vehicle, he or she is summoning up all the accretions that adhere to the semiotic web that is Africa” (Atkinson 1991:22). The entire visible and invisible African landscape was branded ‘black’ (as opposed to ‘white’) with the result that “the figures and landscapes of the dark continent were far from neutral or natural by the early twentieth century” (Atkinson 1991:23).

Within the ambit of this mighty “Western lore” (Thakur 2010:1), the “knowledge market controlled by the metropolitan worlds” specifically reduced African scientists’ role to the “gathering and exportation of knowledge and information useful to Europe” (Coetzee 2002:551). The backlash was inevitable: ceaseless lamentations about how much even the Western scientific enterprise benefited from colonialism's exploitation of Africa which we have already noted above. Yet, remarkably, while affirming the critical need ‘to rectify the historical prejudices of negation, indifference, severance, and oblivion’, it is the very African thinkers who at the same time are eager to “go beyond defence, confrontations, and corrections [into] authentic projects and exercises in genuine scientific construction” (Osugwu, in Ramose 2002a:5-6). In other words, recognition and awareness of the harm systematically done to Africa does not paralyse the creative genius of the African; a creative genius which is there to be seen by any who can, even if only for the briefest of moments, afford to stop pursuing control.

Engaging in genuine scientific construction takes cognisance of and thus benefits from the formidable heritage that the Western scientific enterprise has bequeathed. (To continue my earlier quip, Jesus of Nazareth could not afford not to give due recognition to John the Baptist.) But at the same time, and perhaps more significantly, to engage in genuine scientific construction is to celebrate the extent to which African heritages – both ancient and modern – have played key and wide-ranging roles in the development and enrichment of science hitherto.⁹ Ironically the hurt which accompanies memories of the past does not engender tendencies toward exclusiveness. On the contrary, anticipating the suffering that the African could potentially inflict on her erstwhile oppressor evokes a “shared feeling of sufferance, of victimhood, [which] thus becomes the conceptual register of a new universalised thinking. ‘African’ as an identity is defined by its newness. Sacrifice of a vindictive racial self, creating a common archive of selectivised memories of victimhood, and harping on an inclusivist identity become main features of this discourse” (Thakur 2010:4).

Now finally in African hands, Africanness gets redeemed from the Western notion of ‘negativity’ (non-Europeaness) to realise its true identity as humanness (often encapsulated as *Ubuntu*). The victory of the African thus lies in her surrender of control rather than in the exclusion of the violent other; knowledge of what violence begets prevents the idea that power is control, while permitting the notion that weakness is strength to rule the day. In the words of one of South Africa's beloved sons, “Blacks have had enough experience as objects of racism not to wish to turn the tables” (Biko 2004:108).¹⁰ Or, in Fanon's turn of phrase, “Africa, does not wish

⁸ For Stephan Palmié (2007:160) this Africa “designates that place and time” which the civilized Westerners have outgrown and which, therefore, “the successful [African] convert is supposed to leave behind” in her pursuit of “universal” truths.

⁹ Whereas Africans have been and continue to be admirably involved in various capacities within the scientific *enterprise*, and whereas African cultures have supplied interesting *specimens*, doubts persist regarding their involvement in the shaping of the scientific *discourse*. Truth gets determined at the level of discourse, where ‘text’ (acceptable content and manner of its articulation) and ‘context’ (acceptable or relevant parameters and participants) are controlled by the powerful (van Dijk 2010).

¹⁰ “In rejecting Western values, therefore, [we affirm] ... that the corner-stone of society is man himself... We reject the power-based society of the Westerner that seems to be ever concerned with perfecting their technological know-how while losing out on their spiritual dimension. We believe that in the long run the special contribution to the world by Africa will be in this field of human relationship. The great powers of the world may have done wonders in giving the world an industrial and military look, but the great gift still has to come from Africa – giving the world a more human face.” (Biko 2004:51)

to catch up with anyone. But we want to walk always, night and day, in the company of man, of every man” (Fanon, in Coetzee 2002:556). Further illustration of the same inclusive spirit, though perhaps negatively stated, can be gleaned from the then Deputy President of South Africa: “We refuse to accept that our Africanness shall be defined by our race, colour, gender or historical origins” (Mbeki 1996). The magnanimous ‘our’ in the preceding sentence includes rather than excludes ‘the identity of his oppressor’ (Gevisser 2007:326). Yet, in all fairness, the presence of the oppressor does complicate postcoloniality; in fact it reduces it to mere neo-coloniality, as can be easily demonstrated in South Africa vis-à-vis relations among Africans as opposed to relations between Africans and white foreigners.

To recap, we were human beings long before we were made Africans in the negative sense of *non*-scientific (cf. Appiah 1992, 2008; Mazrui 1986, 2002; Mbembe 2002). As Africans under colonialism, we endured all manner of abuse because we were the unfortunate other. Some of it we resisted with varying degrees of success; but the rest of it we imbibed and appropriated as part of who we became. In the postcolonial moment, as we unlearn colonial definitions of Africanness, as we watch Africanness soar into its rightful place as inclusive humanity, we are re-learning that *I am an African* also means *I ni waAfrika*, *فيقيرفالا انأ*, *Eu sou um Africano*, *Ke mo-Afrika*, *Africa nyo ji mi*, as well as *Je suis un Africain*. Ours is the enviable privilege of ushering the globe into an era of science that is for the benefit of *all* creation.

Looking ahead with humility

Fixating on lists of what should be included and what excluded either from African or from colonial heritage is counterproductive since such lists do not come with instructions on how the various components should interact with one another or with the whole. Moreover, such lists remain non-exhaustive. The science of controlling or prescribing lists is thus no science at all.

The right to represent Africanness is another contentious issue. It is one over which martyrs such as Steve Biko have died. It is not, as we have obliquely argued, a right to be grasped¹¹ by any and all means necessary. Our humanity precedes our self-identification with any phenotypical quality or geographical accident. Our humanity implies community; community implies the ability to hear and confidence in one's own right to be heard. “We don't come fully formed into the world ... we need other human beings in order to be human” (Nussbaum 2003:4). Here the quagmire created by individualism, namely needing another over whom to assert oneself, does not arise.

It is most difficult to conclude this hasty and haphazard reflection, and so I beg to enlist the following expert phraseology because it captures fairly succinctly the essence that I have been seeking to communicate throughout, namely that what will be is not cast in stone and we are simply called upon to be skilful managers of the manifold opportunities that lie in front of us. (Their adoption of the language of control is harmless in the sense used here):

As actors respond to changing environments, they must continually reconstruct their view of the past in an attempt to understand the causal conditioning of the emergent present, while using this understanding to control and shape their responses in the arising future ... Actors develop their deliberative capacities as they confront emergent situations that impact upon each other and pose increasingly complex problems, which must be taken up as challenges by the responsive (and communicative) intelligence (Emirbayer & Mische 1998:968-969).

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¹¹ My choice of this word is affected by the Revised Standard Version's usage of it in Philippians 2:6. Apparently, Jesus' humanity did not preclude his divinity, and so he had no reason to engage in any grabbing and snatching.

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