

COMMENTARY

Mathematics Education and the Problem of Political Forgetting: In Search of Research Methodologies for Global Crisis

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Forgetting our intentions is the most frequent of all acts of stupidity.

– Friedrich Nietzsche

Mathematics is created in the self-alienation of the human spirit. The spirit cannot discover itself in mathematics. The human spirit lives in human institutions.

– Giovanni Battista Vico

More and more, standardized, efficiencies-based, and surveillance-driven modus operandi are prescriptively defining the interests of the individual and collective in terms of market-driven imperatives in consonance with the demands of the nation state competing for resources, means, and power on a global stage (Swanson, 2010a, 2010b, 2013). While Trumpianism and the rise of popul(ar)ist nationalism has confused the straightforwardness of the “common sense” of neo-liberalism, it is without undoing its expansionist effects in an increasingly unequal world (Gamal & Swanson, in press). Acting in accordance with “(inter)national” relations of exchange, this dominant economic rationalism is reflected in the production of consumer-driven *homo economicus* for the New Knowledge Economy through the increasing trend towards techno-scientistic corporatist economic utilitarianism in education, of which mathematics education plays a leading role under a veil of political neutrality. This growth of techno-scientistic and managerialist instrumentality is, for Hobart (1993), aligned with the growth of ignorance. It tends to facilitate what Biesta (2005) has referred to as “learning” discourses, or the prevalence of “learnification.”¹ This functionalism is concomitant

¹ Biesta (2005) differentiates *learning* from *education*, bemoaning the fact that the “new language of learning” heralds a trend toward education as a marketable commodity invested in economic relations of exchange rather than something whose purpose and value may be deeply and intellectually debated in terms of democratic principles, where trust, violence, and human relationships

with increasing privatization, standardization, instrumentality, and commodification of mathematics education curricula and educational environments globally. This trend belies the increasing global political and economic uncertainty, ecological fragility and human precarity that has become the hallmark of our anthropocenic age, masked by the dominant assumption of “common/global good” in the advancements of global capitalism and reliance on the “naturalness” of “market forces.” This trend is a normalizing condition pervading all aspects of our lives and increasingly threatens foreclosing the public sphere, in Arendtian terms,² leaching away imaginative and practical capacity with the intended effect of largely disaggregating political will for resistance. It instigates the question: in our incremental accommodation of this general depoliticized commonsense hegemony, our slow capitulation to a diminished public space, and our relinquishing of freedoms even with greater consumerist “choice” and networked transnational intercommunicative access, is this neoliberal spread a form of global “political evil”³ as Hayden (2009) asseverates in drawing on the political thought of Hannah Arendt? Or is it, following Friedrich Nietzsche (1878/1996), merely stupidity and ignorance on our parts⁴ in forgetting what our intentions were and what we were trying to do? (Swanson, 2010a)

are necessary features of such a debate and of education itself. This differentiation also applies well to arguments being developed in relation to mathematics education more specifically.

² Bowers (2006) refers similarly to this effect as enclosing the (cultural) commons.

³ Hayden (2009), working in the field of International Relations and drawing on the political theory of Hannah Arendt, notes:

Even as globalization shapes the horizon of current political thought and action, it does so at the risk of drawing that horizon ever tighter; it is less certain that the concept of ‘globalization’ continues to express transformative potentials rather than functioning as a token of the very effacement of the political. Globalization has become not only the political foundation of the present, but also the suspect guardian of the future of the political itself. ... I argue that neoliberal economic globalization is a form of political evil. (p. 92)

⁴ This stupidity is itself an effect and offset of the political evil of neoliberalism, a production of ignorance that contributes to a symptomatic erasure of history, a making unnecessary the historical in the constitution and vitalization of the human condition. The apolitical, ahistorical comportment of modernization permits the “forgetting,” and the stupidity of such forgetting is thus tolerable, hence an ignore-ing/ance of the necessity of our political/historical condition in understanding what it means to be human. This ignoring and forgetting is an attributable structuring of neoliberalism rather than just a side effect. The forgetting is precisely what is forgotten within modernist conceits.

These absences, blind spots, denials, and active acts of forgetting are concealed inheritances invested in mathematics education and with which mathematics education has played an important part. This forgetting has been representative in the way it has reified, and been reified in, particular paradigms of being and knowing. As Adorno reminds us: “all reification is a forgetting: objects become purely thing-like the moment they are retained for us without the continued presence of their other aspects: when something of them has been forgotten” (as cited in Bewes, 2002, p. 208). For Adorno, when such forgetting shapes experience it becomes an “epic forgetting.” Through this definition, we might argue that mathematics education, historically and in the present, has become in many cases a practice of epic forgetting. Through the role it often has played in discourses of modernism, it has helped to hold in place rather than defeat existing global inequalities, injustices, prejudices, mentalities, fragilities, and imaginaries of being that support the current untenable global political condition. Historical traces can be found in pervasive thinking and practices of mathematics education throughout the Renaissance, Enlightenment and (Post)Industrialization, and it has played its part in the colonial project or the paradigm of economic development as a modern extension of colonialism⁵ (Swanson, 2010b, 2013). The areas of focus and their arguments and emphases in mathematics education research bear witness to the history of things as they have come to be, as well as how they have become “thingified” (*Verdinglichung*). There is therefore some responsibility in what the practices of mathematics education research has enabled and prevented, how it has contributed to the current global political imaginary, as well as what it has produced as a legacy of political complicity.

Mathematics education has, in the past and present, embroiled itself in cognitive and constructivist obsessions. It has suffered (and gained) from intensely symbolic interactionist methodological approaches centered around, in large part, the individual self of the child/youth as an object of study and the self of the superior (mathematically) knowing subject, such as teacher/lecturer/researcher/mathematician. In the recent past, mathematics education research has tended to be somewhat inwardly focused and insular, convinced of the natural goodness of a relatively stable mathematics and mathematics education, and these conservatismisms have tended to remain in fair part. This “natural goodness” has been enabled through the unconscious assumptions carried by researcher/mathematics educator, convinced of its wholeness and the wholesomeness of its effect on the world thereby (in)advertently or (un)intentionally contributing to the modernist global imaginary and neoliberal governance. Furthermore, poststructuralism and critical theory came late to mathematics education research and its attendant theories, as did the sociology of mathe-

⁵ Development is a neo-colonial discourse. As Kothari (1988) notes, “where colonialism left off development took over” (p. 143).

matics education. Socio-cultural and cultural considerations, including ethnomathematics and localized/intergenerational and “indigenous knowledge systems,” have also been brought to the fray but still seem to suffer, to some degree, from a notion of “culture” as being constructed as a coherent otherness of being in ways that are often essentialist, exotic, and deterministic, as was sustained in the colonial project (Said, 1979). Social identity theory, social action theory, semiotics, and other sociological, reflexive feminist, socio-historical theories have contributed much to shifting the debates, but arguably there is still the Euro-centered liberal conceptions of the rational, coherent, individual self deeply inherited in these theoretical positions even as they often attempt, from critical perspectives, to thwart them. Complexity science, cultural historical activity theory, posthuman and bio-political theories, and similar, have been welcome contributions to decentering the human. These theories have also been appreciated for the way they recognize and further complexify the always-already complex situated shifting relationalities of networked systems of signs and interactions (both human and non-human) that produce and construct particular meanings and “regimes of truth” (Foucault, 1975/1977) of the contemporary condition and the history of the present (Appelbaum, 1995; Swanson, 2016).

But it might be argued that considerations of relations of power and their political and global effects have often been neglected, or rather not fully considered, in interactionist research within these frames, even as Bourdieu, Foucault, Bernstein, Butler, and similar theorists, and other power-oriented discourses have been brought to the conversation. While some attention has been given to anti-racist, anti-oppressive, diversity, and social justice mathematics education, and these are still somewhat under-researched, it could be argued that more could also be done on expanding our theories of ethics from non-Euro-centered perspectives as well (Appelbaum, 1995; Maheux, Swanson, & Khan, 2012).

I assert that our scales of research engagement need to shift. It is urgent that we expand our horizons further in the mathematics education research we do as well as increase the dimensionality of our research. We need to cast our research gaze beyond classroom and teacher education programmes and reflexive interactions within them, in ways that might shift theoretical, and hence methodological, perspectives and positionalities to more fully consider the global, glocal, and global-political-ethical-ontological dimensions. In learning to remember what it is we are trying to do with/in/for/about/through mathematics education, we need to actively and earnestly search for possible alternative political and onto-epistemological (Swanson, 2015) ways of knowing that might open up different ways of being and radically hopeful futures. In this sense, while mathematics education has drawn more widely on the fields of social science and, to some degree, the humanities in recent times, including, to a lesser degree, arts-based methodologies and theories (Swanson, 2010a, 2010b), perhaps it could productively turn to areas such as post/decolonial theories, critical development studies, international

relations, and political theory more substantively. At the same time, it would do well to actively consider the hybrid incorporation/inter-corporealization of indigenous thought and embodiments, pluralized/ing epistemologies, and alternative/alter-globalizing ontologies that may shed more light on and respond with what Canadian indigenous scholar Jonathan Lear (2006) has referred to as “radical hope” to the current deleterious global condition in which mathematics and mathematics education is implicated. We need to remember the historical present. We need to remember ourselves out of forgetfulness and into the possibility of alternative futures by acknowledging, in the first instance, examples of mathematics education’s implicatedness in knowledge capitalism and the global surveillance-military-prison-industrial complex.

Post/decolonial theories provide another important critical lens through which to unpack, gain perspective, and dialectically respond to some of the colonialisms inherent in much mathematics education research and the modernist development project they often facilitate. These colonialisms are enabled through absences as well as intentionalities that create and sustain symbolic and systemic violences within the broader social and ecological domains. We live within ongoing states of emergency and crisis—global, political, educational, ecological, economic, and paradigmatic. These crises have become permanent states of exception. Few would render farfetched the assertion that we live in a global condition of a crisis of crises. I assert that it is both timely and critical to bring into play several postcolonial and decolonial theoretical concepts to bear on mathematics education in contexts of modernism and global development⁶ in providing a political, global orientation that more centrally considers the role of the nation-state, the geo-political imaginaries of empire, and the broader neocolonial/neoliberal global(izing) condition in respect of mathematics education in global context. Certain post/decolonial ideas valuable to critiques and conversations in mathematics education can be understood as being inscribed within such non-exhaustive foci as: centre-periphery discourses, loss and exile, disavowal and dispossession, epistemic violence, epistemic suppression (Quijano, 2000), epistemic racism (Mignolo, 2011), abyssal thinking (de Sousa Santos, 2007), representation and voice in geo-political context, othering and exoticism (Said, 1979), global social and ecological injustices, discourses on dominance and the subaltern (Spivak, 1988), benevolence and salvationist discourses, global/local asymmetrical relations, cultural imperialism (Said, 1993); and the problem of “dividing the world” (Willinsky, 1998), whether these divisions are enacted East/West, South/North, developing/developed worlds, margins/centre, or majority/minority

⁶ As Nederveen Pieterse (2010) avers, “The crisis of developmentalism as a paradigm manifests itself as a crisis of modernism in the west and a crisis of development in the south” (p. 28).

worlds. These and other post/decolonial concepts offer opportunities to provide frames of reference with which to converse with mathematics education from wider geo-political and global justice-oriented perspectives. They also demand responses from us that help us remember what it is we were trying to do with/in/for/about/through mathematics education. This remembering would necessitate our ability to think, act, and conceptualise otherwise than our current frame of reference permits, in ways that also demand the political will to do so.

Butler (2009), in reference to “the frame” in context of a “frame of war,” asks:

How do we understand the frame as itself part of the materiality of war and the efficacy of its violence? ... The frame does not simply exhibit reality, but actively participates in a strategy of containment, selectively producing and enforcing what will count as reality. It tries to do this, and its efforts are a powerful wager ... this means the frame is always throwing something away, always keeping something out, de-realizing and delegitimizing alternative versions of reality, discarded negatives of the official version. (p. xiii)

The development theorist, Jan Nederveen Pieterse (2010), in referencing the paradigm of economic development, draws attention to the reasons why it may be so difficult to think outside of its conceptual frame. For Nederveen Pieterse, this difficulty would resonate with a Butlerian account of the frame and its strategy of containment, and he argues that much of the difficulty lies with the context of language. He notes:

Spatial metaphors are deeply embedded in everyday English and the language of social theory. Ann Salmond's (1982), inquiry into the semantics of social theory, shows that knowledge is a landscape, that is, knowledge has a spatial existence, and that intellectual activity is a journey. Related notions, that knowledge is territory and argument is war, are the basis of accusations of intellectual ‘imperialism’ in theoretical texts. Understanding as ‘seeing’ and explanations as light sources (‘illuminating’) are related to the notion of intellectual activity as a journey. That theoretical systems are buildings are metaphors that are related to structuralist discourses. Spatial distinctions of levels and of high and low further structure discourse. Notions of intellectual advancement and the progress of science follow likewise. So the general conception of knowledge and social theory itself tends to be structured in terms of spatial or organic metaphors and of (linear) motion in space. Knowledge itself ‘develops.’ Developmentalism ‘grows’ out of the semantics of space/time. (p. 28)

In the same way, much mathematics education research and praxis, and the metaphors considered salient to the field, have suffered from a frame that delegitimizes non-official other versions, derealizing alternatives as discarded negatives to official ones. An example is, as a dominant view, the blind disregard for the political nature of mathematics education in its complicity in systems of injustice and war; for the way in which mathematics education in its othering and often-

dehumanising effects, contributes to epistemologies of ignorance and the stupidity of forgetting what its purposes are meant to be. Instead, there is a general capitulation to the narrow economic rationalizing of modernism as a frame of war against alternative ways of being and knowing.

A second example would be, as Nederveen Pieterse (2010) would agree, the indelibility of the linear model of ever-advancing “progress,” and this as a model or frame is often forcefully intentioned through mathematics education discourses, practices, and many of the research approaches applied to it. Yet another example of a strategy of containment and the limiting context of metaphors of language in the production of a regime of truth is the way in which a futurist, modernist mathematics education is repeatedly spoken of as a natural “good,” a necessity, critically essential for “21st century skills.” Bringing in Jacques Rancière’s (2009) notion of “radical equality” into consideration, Rancière would recognize disobedience to the colonizing gaze of modernist mathematics education and its complicity with the globalizing development project as a democratic action, not deficit. Refusal need not be automatically conceptualised as failure but as a critical position of radical equality in relation to mathematics education (Swanson & Appelbaum, 2012).

The 17th Century Italian philosopher, Giovanni Battista Vico, noted that mathematics was “created in the self-alienation of the human spirit” (as cited in Davis & Hersh, 1986, p. x). Following from its master discourse, mathematics education too, to a large degree, has assumed this posture, as if neutrality were natural to it, denying its role in the global modernist project that has underscored mass inequality, prejudice, racism, and ecological disaster sustained through the ongoing hubris of empire. Its conceits, kept in motion by economic development and modernist globalization, have led to the continuance of a dehumanizing and ecologically degrading project. Mathematics education research approaches that, advertently or inadvertently, advance these positions are a dispiriting of mathematics education’s potential and responsibility in enabling a better world or multiple possibilities of one. ... Or perhaps it is an epic act of forgetting what we were trying to do, a form of gross stupidity and ignore-ance. Perhaps the time has come for us to remember *with* mathematics education and research, how we might foster viable alternatives to burgeoning global injustices and ecological disaster. Perhaps it is time for us to remember what the intentions of mathematics education should be, to live well with mathematics education in order to live well with others; to live and research well with mathematics education in order to make possible futures of radical hope.

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