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LEONARDO THINKS

Opinion: Translation Discussion: Michael Punt, Roger Malina and Martin Zierold: Part II: Non-Euclidian Translation: Crossing the River Delta from the Arts to the Sciences and Back Again by Roger F. Malina

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Michael Punt in his LRQ editorial asks some simple questions: as we move into a new cultural context, of e-culture, what is gained, what is lost? When two cultures interface there can be constructive or destructive interference. What knowledge is being transferred, or constructed, by whom and to whom? Is the e-book really that important in the context of global culture? His skepticism I think rightfully argues that we are very much in the 'dark' ages and not yet the 'middle ages' of the way that digital cultural is re-shaping texts. Martin Zierold in his LRQ commentary, points to the writing of Vilem Flusser who emphasized that these new cultural tropes have to be learned, and this takes time.

One way to think of this is as a problem of 'translation'.

In Euclidian Geometry the three 'orthogonal' transformations are translation, rotation and reflection. Euclidian 'rigid' transformations preserve the properties of the objects, they are 'isometric'. The nineteenth and early twentieth centuries saw the development in mathematics of 'non-Euclidian' geometries with profound consequences in physics. We now know that the universe is 'non-Euclidian'. Special and General Relativity informs us that space and time are un-separable and that we need to think of 'manifolds' which may be Euclidian on small scales but very much more complex on larger ones, with folds and singularities.

Needless to say 'culture' is non-Euclidian and as we move ideas, or objects or processes, around 'the space of culture', the move to e-culture is not isometric.

Translation Studies have recently emerged as a new focus for understanding a number of problems in the humanities, with the expansion of the *métier* of textual translation to cross-cultural studies, and more recently inter-disciplinary studies. I want to explore here the usefulness of some of the



concepts of Translations Studies to current discussions on the relations between the arts and sciences.

Rainer Schulte (2) points out that ‘the German word for “to translate” is “übersetzen”.’ In its most basic visualization, the German word means ‘to carry something from one side of the river to the other side of the river’. The metaphor carries a number of complexities, which can illustrate why translation in a non-Euclidian space is not isometric: the landscape on each bank of the river is different, so objects are transformed, or grow or shrink, in their new context; some things can be carried over by boat, others are untransportable; the journey back is not symmetric with the journey there; the boatman has an influence on what is carried and how; the idea is not to pave over the river to unite the banks, but rather to encourage trade and barter between the banks; travel between the banks is in itself enriching; the nature of the river is important (how long does it take to cross, is it a violent crossing, does one get distracted on the crossing) and so on.

To avoid the trap of the false dichotomy that C.P Snow led many into, I would prefer to imagine a river delta. (3) The river beds themselves move with time and silt can create new banks and territories.

In a recent book, actually a pamphlet of unusual vigor, Jean-Marc Levy-Leblond, has mounted an all out attack on some of the claims of the art-science field today. (4) Titled “Science is not Art” Levy-Leblond demolishes some of the art-science communities’ favorite toys (the golden ratio, fractals, beauty, techno-kitsch, neuro-aesthetics, new media art in general and 3D realism). He decries the search for a new “syncretism” that would somehow help us create a “third culture” that melds the arts and sciences. In his view the arts and sciences are two different banks of a river as distinct and un-reconcilable as two ecologies that develop within different contexts, on un-mergeable continents, and have grown with differing survival mechanisms and goals. He argues that there are very good reasons that the arts and sciences have separated, that we need disciplines and we don’t want a syncretism.

In this issue of LRQ, Leonardo Co-Editor Jacques Mandelbrojt (5) reviews Levy-Leblond’s book, and points out that the concluding chapter, entitled “brief encounters” is actually a plea for art-science interaction of a specific nature. Levy-Leblond’s arguments fall onto two categories: what I would group under the general category of creativity theory, and second the feeding of the cultural imagination that helps us make sense, make meaning, of the world around us.

I want to argue here that these ‘goals’ of art-science may be viewed as tasks of ‘translation studies’.

Scientists get their ideas from somewhere, and Levy-Leblond values the ‘otherness’ of the perspective of artists, which forces scientists as a potential source of ‘creative friction’. This idea is one that is frequently discussed in translation studies; the translator’s role in unraveling the nature of ‘otherness’. Artists who visit or work in the world of science, through the journey from art to science and back, can not only notice aspects of the landscape ignored by the scientist, but also translate in ways familiar to the indigenous people on the other bank; ideas or experiences that have no



equivalent. Thus scientists are embedded in a world that is only accessible through scientific instruments, whereas in daily life we are in a world accessible only by, and filtered, by our senses (augmented by our cell phones). These are different worlds; one of the tasks of the translator then is to find ways to transfer certain translatables while acknowledging that much is untranslatable.

Levy-Leblond's second general argument relates to how artists help scientific ideas become culturally re-appropriated, and then fed back into the imagination of scientists. He argues that it is a necessity today 'to re-establish the link between the concepts constructed by science and the reality from which they were abstracted'. Again this idea is one that is rooted in basic concepts of translation studies. Einstein famously stated: 'The universe of ideas is just as independent of the nature of our experience as clothes are of the form of the human body.' (6) The interest, even fascination, of artists in 'embodiment' of scientific concepts can therefore be seen as a translation device. Numerous projects in 'science as theater', or interactive art works exemplify this approach.

Other interesting aspects of concepts from translation studies can be quickly sketched:

Artists' use of visualization and sonification technologies from computer science are a rich terrain of art-science practice and should be viewed as projects in translation, not projects in representation. As Gyorgy Kepes called for (7) they appropriate the 'new landscape of art and science' but their goal is not transliteration or accuracy, but rather to 're-sense' in the context of the arts ideas that arise on the other banks of the river deltas. Maybe my non-Euclidian analogy can help us in thinking about 'sense-making'.

The born-digital generation has a currency in a dialect that is valid on both sides of the river, and this shared language entails shared ontologies and eventually connected epistemologies. This process of shared language building, enables trade and barter and not assimilation, is one that is surely a contributor to creativity and innovation on both banks. But this surely takes time.

In a recent text Lynn Hogard, Denis Kratz and Rainer Schulte (8) note that 'technology, globalism, and relentless change' are characteristics that are creating synergies between the humanities and sciences for which translation techniques can be strategic.

They go on to state that there are three challenges:

'a) to navigate the technological environment, expertise and the ability to employ the current and yet to be invented technologies of inquiry and communication;

b) to navigate in a global environment, a capacity for empathic understanding of the other and the ability to collaborate and communicate across barriers of language and culture;



c) to respond adequately to change and surprise, intellectual flexibility and creativity--that is, applied imagination.'

These would seem naturally to define some of the agendas in art-science practice. To return to our translation idea, one of the strategies of art-science practice can be the development of the tools of translation studies as means 'to carry something from one side of the river to the other side of the river' and back.

And of course the metaphor of our delta crossing begs the question of the nature and source of the river and the nature of the sea, and of the rain that feeds both the river and the land. To mix my metaphors, non-Euclidian space has sources (white holes) and sinks (black holes), time is not an invariant coordinate. We are just at the beginning of the 'translation' to e-culture.

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Endnotes

[1] Doris Bachmann-Medick, Introduction: The Translational Turn, *Translation Studies*, Vol. 2, No. 1, 2009, 216.

[2] Rainer Schulte, The Translator as mediator between Cultures: http://translation.utdallas.edu/translationstudies/mediator_essay1.html.

[3] I am bothered by the river metaphor since it sets up a 'strawman' dichotomy between the arts and sciences. I would prefer somehow to have a network of water streams to carry the idea of 'networked knowledge' rather than trans-disciplinary practice as argued by David Goldberg and Kathy Davidsen in the report 'the Future of Learning Institutions in the Digital Age'. (http://mitpress.mit.edu/books/chapters/Future_of_Learning.pdf). Many disciplinary boundaries are fuzzy and shifting.

[4] Jean-Marc Levy-Leblond, *La Science n'Est pas L'Art*, Hermann Editeurs, Paris 2010 ISBN 978 27056 6954 4.

[5] Jacques Mandelbrojt: http://www.leonardo.info/reviews/apr2011/levy-leblond_mandelbrojt.php . My review of the book can be found at: <http://malina.diatrope.com/2011/04/17/is-art-science-hogwash-a-rebuttal-to-jean-marc-levy-leblond/>

[6] Albert Einstein, *The Meaning of Relativity*, Princeton: Princeton University Press, 1921, p.1.

[7] Gyorgy Kepes, *The New Landscape in Art and Science*. Chicago: Paul Theobald, 1956.

[8] Lynn Hogard, Dennis Kratz, Rainer Schulte, *Translation Studies as a Transforming Model for the Humanities*: <http://translation.utdallas.edu/research/FIT.pdf>

[9] If I had the space I would explore also the issue of 'teachability' since the issue of 'translatability' also carries with it the idea that there are tacit and explicit knowledge that may or may not be 'transportable' or teachable.

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