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MAKING INTERDISCIPLINARITY WORK THROUGH TRANSLATION AND ANALOGICAL THINKING

by

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Abstract: Analogies are often employed in a variety of contexts as a means of translating across disciplines or perspectives. Such translation fails when it is thought of merely as transversal exchange, focusing on similarity within the analogy. Until now, in my teaching, I have been directing students to do just this. Recently, I have been considering the philosophical problems of analogical thinking, and I am prepared to revise my approach. Rather than assume the value of similarity, and therefore conclude the integrative process (and claim success) on that basis, analogical thinkers as interdisciplinary translators would do better to engage the difference that inheres within each discipline or perspective as the source of understanding “how newness enters the world.”

Overview

Translation is what interdisciplinarians do. Translators all, the task of interdisciplinarians is to bring newness into the world.¹ This idea seems simple enough: what is commonly understood to be one of the basic principles of interdisciplinary integration is that disparate perspectives or disciplines might somehow be made to come together to create something new. A

radical principle, indeed, in a world guided by disciplinary thinking, yet an almost commonsensical notion for anyone interested in the possibilities of interdisciplinary thinking.

I have followed the principle of integration via translation for some time now, but I have also been wondering of late about this approach, which has become almost an assumption in interdisciplinary teaching and research. The difficulty, I have discovered, resides in both the means by which we might achieve newness (for me, until now, relying upon analogy), and the ends (for me, until now, solving problems). These means and ends are fine up to a point, but their geometry, a linear progression leading up to a full stop, seems to me to be limited and undertheorized, given the gravity of the enterprise of interdisciplinary thinking. We purport to offer the achievement of something altogether new, and yet the newness we bring into the world is only as limited as the method and result of our efforts. The difference comes when one re-evaluates just what sort of newness we expect to discover.

The process of bringing newness into the world is by no means an easy task. Edison’s inventions, for example, were the result, as his famous saying goes, of 98% perspiration. Or consider the postcolonial experience. From revolution through consolidation of power, to social, economic, and political transformation, the birth of new nations and their ongoing changes is not only difficult; it is marked with violence. The very biological act of bringing life into the world (the birth of a child) is an experience of uncertainty, risk, and even pain.

In the classroom it is difficult to approximate such difficulty. In fact, students are eager to avoid conflict. Early in the semester of my introductory interdisciplinary course, I ask students to apply knowledge from their diverse disciplines to analyzing and describing the complexity in everyday objects such as a DVD or a dollar bill, or in abstract concepts such as “love” or “justice.” Or even in attempting to bring to bear those diverse disciplines in a group exercise to end poverty or stop war, students commonly claim to have “achieved integration” after only a few minutes. Students tend to rush for the nearest commonsensical solution in order to demonstrate their achievement (apparently speed is better than accuracy). Underlying these achievements done in world record time is a lack of awareness or appreciation of just what they are up against. The history of the disciplines imposes centuries of epistemological barriers to easy integration. My students, like just about everyone else, have been duped into the false sense of security that disciplines provide, and, to make matters worse, in cross-disciplinary discussions they are all too happy to allow others to impose their disciplinary will on them.

I am forced to remind them that the stakes are very high, and that early submission to another disciplinary perspective, effectively spelling the demise of their own discipline, results in a loss of depth in the conversation. With their eyes steadfastly on the prize of achievement, students fail to understand that the lesson is as much about a process of interdisciplinary thinking as it is about a result, the much-desired solution to a problem.

I have taught students how to make interdisciplinarity work using a number of approaches, delivered in a number of ways. Notable among these, and most relevant to my remarks here, are the related ideas of translation and analogical thinking. I'll begin by describing my current approach to them in the classroom. Following that, I'll return to my initial proposal, that the way we do interdisciplinary thinking needs theoretical revision. Here, I'll be rethinking the ideas of translation and analogical thinking as bringing newness into the world. I'll finish with a thought or two about revision in practice.

Teaching Translation and Analogical Thinking

My reference here for these approaches is my introductory course in interdisciplinary studies, taught mainly to juniors and seniors in the School of Interdisciplinary Studies at Arizona State University. I present translation as the possibility in language of overcoming the discursive barriers of language. I paint in broad brush strokes a picture of translation as having a number of possible approaches: imposition, common understanding, hermeneutic understanding, tolerance, respect for difference, and invention. For example, one can impose one's language on another. Of course, it's not a very collegial approach, but it gets the job done. In effect, translation is done for the other, as in a boss instructing workers, or as in a colonial government dictator forcing people to behave as appropriate subjects. Because it hits home for many of my students, this approach has been the subject of endless discussion in my classes.

As "common understanding," translation appears almost as an immediate end: as in a group of people in consensus. This apparently more benign approach is nevertheless potentially dangerous as when consensus is, or becomes, ideology, rigid adherence to which is required for membership, thus eliminating the need for translation—or when consensus is achieved rapidly, overwhelming differences of opinion. Hermeneutic understanding occurs when, for example, an anthropologist "goes native" and then returns home to attempt to translate for a familiar audience an unfamiliar and strange culture. The problem with hermeneutic understanding is that much, arguably

all, is "lost in translation." We approach more favorable possibilities as we proceed through tolerance (potentially relativism, and in any case a negative approach to difference), and respect for difference (which is really only a first step, I explain), toward the final approach, invention. I explain invention as the creation of new ideas as a result of the integration of difference (respected in the previous approach to translation). I emphasize that each of these approaches to translation is valid, and each has potential merit as a way to overcome the discursive barriers that language automatically imposes.

I reinforce the problematic nature of language in a "translation experiment." Several groups follow instructions to find in various editions of dictionaries three keywords in the definition of a particular assigned word—and three keywords in the definitions of each of those keywords. None of the groups knows the others' assigned word, but each competes to determine that word as the keywords are read out to the class. As a member of one group reads aloud each of its keywords, beginning with the most distantly related keywords, stopping at each word and giving the members of the other groups a chance to try to guess the assigned word, I keep score on the board and give the group a point each time they succeed in not being discovered. The procedure is the same for each of the groups. Only very rarely has a student been successful in determining another group's assigned word prior to all 12 keywords being read. Multiple lessons unfold in the discussion that follows the "translation experiment." Importantly, students learn that their (one, English) language is not as easily understood nor as defined as one might assume, and that language is rather much more a matter of the way meaning is deferred (Derrida-like), or interconnected (Kevin Bacon-like) nearly endlessly, which is a hopeful lesson if one wants to be successful in translating. The comparison to a crossword puzzle in this experiment is cogent inasmuch as transversal thinking ("thinking outside the egg carton") makes for a successful grasp of meaning in the face of endless deferral or interconnection.

I approximate for my students how translation occurs at the horizontal intersection of two languages (or disciplines, or perspectives). To the extent that one has depth in one's language and in another, then there is greater opportunity for translation to occur. Without depth, translation becomes more difficult. To illustrate this point to my students, I draw two rather short vertical lines on the board, and describe each as representing two disciplines. In Arizona State's School of Interdisciplinary Studies most students seeking the Bachelor of Interdisciplinary Studies degree help create their own program of study by choosing two disciplines from about a hundred available

disciplines. In my chalkboard illustration of how translation occurs, I suggest to my students that the two vertical lines represent their two disciplines. I then draw several horizontal lines that intersect both vertical lines. These lines, I explain, are the moments of interdisciplinary translation that occur across disciplines. I then significantly lengthen the vertical lines and explain to my students, as I then draw many more horizontal lines that intersect the two disciplines, that with greater depth of knowledge in their disciplines, there are considerably more opportunities for translation to occur. The illustration continues as I draw several more long vertical lines on the board, representing other disciplines, and more horizontal moments of interdisciplinary translation, this time intersecting not just two disciplines, but several disciplines. The illustration is not lost on my students who understand it to be an exhortation to gain depth (read and understand as much as you can) in anticipation of possible charges that they are bound to encounter that interdisciplinary thinking/studies is more process and less substance. So far my students know only that translation (in the words of George Bush) is hard work. Besides depth, which is altogether up to my students, they need a method. One method that I've emphasized is analogical thinking.

Analogy, I shall want to argue later, is something of a necessary evil, potentially causing more harm than good. For the moment, however, I'll describe how I've approached this method of enabling translation. Until now, the idea of locating elements of similarity between and among disciplines has been a useful way to achieve integration.

I begin with what I explain to be a simpler form of analogy, metaphor. "Power is money" (and vice versa) is the idea. We turn to poetry as a source of metaphor, following the theoretical issues raised by James Boyd White (1987, 1990, 2001). White's field is law, but his palette is more than precedent. For him, the field of law would be better conceived and practiced if one imagined law as life, in general, and in particular, for example, if one imagined law as literature. In this example, integration occurs between law and literature in the language they both share. It is the poetry of life that connects them, and greater insight occurs through such a poetic understanding. I attempt to illustrate this process by having my students write poetry in class. I offer a short poem, using White's (1987) own example, Robert Frost's eight-line verse, "A Dust of Snow," and ask students to observe the two or more perspectives/discourses at work in it. We dissect the work for its conceptual language and for its actors and the actions they take. I then instruct students to write their own composition using their chosen disciplines. We then read them aloud and ask others to try to determine which disciplines are at work.

The students craft their interdisciplinary poetry by using actors, situations, and language specific to their two disciplines. The disciplines at work can be any combination of the 100 or so disciplines offered in our program as concentration areas, which makes the task more difficult. The results of this exercise are sometimes quite stunning. I point out the use of metaphor in particular, and in general the poetics of language that is decidedly interdisciplinary. Even without a background in Comparative Literature or the Humanities, many of my students write some very good poetry (I've seen a tear or two shed in class at these readings), but generally speaking the ubiquity and power of metaphor are merely noted—students are unable to articulate the systems or networks of meaning that they produce or that they hear their peers produce. I've found it necessary to take the principle of rhetorical forms to a more systematic level—the level of analogy.

The approach I use is based upon Gentner's (1983) model of analogical reasoning, his Structure-Mapping Theory.² Very briefly, the system involves four steps: retrieval, elaboration, mapping, and justification. Retrieval is the creation of an analogical system of objects, properties and relationships. It is the relationships that bring the analogy to life. For example, a person wants to explain the idea of an atom. (Of course, most of us know that in an atom there are electrons that surround a nucleus, but I ask you to suspend belief with me for the sake of illustration). An atom has objects (a nucleus and electrons), properties (size and weight), and relationships (a nuclear force) among those objects. Assuming that one's target audience has little or no idea what is being said with this, the person produces an analogy: for example, a solar system, which has similar objects (sun and planets), properties (size and mass), and relationships (gravity). In fact, a good analogy is almost always a system of some sort, enabling one to replicate complexity. In the next step, mapping (for the purpose of comparison), one essentially puts the analogy in the form of statements. One might say that a sun and its planets have size and mass, and the planets are held in orbits around the sun through the force of gravity. Analogously, the nucleus and the electrons have size and mass, and the electrons are held in orbits around the nucleus through electromagnetic force. Elaboration requires the intervention of some possible complication, designed to test the analogy under fire. Here, we throw in a wrinkle or a problem. For example, the sun in the solar system we're using as our analogy might meet with some external force that causes it to collapse and explode in a supernova, consuming the planets in orbit. Similarly, an atom's nucleus might be affected through bombardment by an external particle and undergo violent fission, producing a nuclear explosion. The final step of justification

is an overall assessment of the utility of the analogy. In the analogy of the solar system to the atom, there seems to be considerable similarity, and so we are justified in using it. A poor analogy would be, perhaps, comparing the atom to a telephone or a cardboard box. There might be some similarities but not enough to justify using either of them.

I take my students through several illustrations of this idea and the process of analogical thinking on complex issues, such as war, terrorism, and justice, and particular manifestations of issues such as these. For example, I explain that terrorism can be understood quite differently by a political scientist, an economist, and a sociologist. For the political scientist, the objects' properties and relationships might be mapped this way: citizens and their leaders (objects) enjoy the rights of sovereignty (properties) in an assumed relationship of power. Through elaboration, this relationship might be said to be undermined through the intervention of terrorists (for the political scientist, on political grounds) as disruptive of the assumed power relationship. An economist might consider the same issue as follows: corporate workers and CEOs (objects) share profit interests (properties) in a relationship based on capital. Terrorists intervene as a disruption to the relationship, appearing as anti-capitalists, opposed to Western forms of capitalism. As for the sociologist, people who live in a community, and their community leaders (objects), share values specific to their community (properties) in a relationship based upon accepted behavior. Terrorists would pose a threat of deviance to the accepted behavior. Of course, the problem exists for these three disciplines in that the concepts involved in the retrieval, mapping, and elaboration make common understanding impossible. The three disciplinary thinkers need an analogy. As interdisciplinary thinkers, they could consider an ecosystem as an analogy that could be mapped as follows: plants and animals (objects) all live, grow, and reproduce (properties) in a balanced relationship. The elaboration involves the entry of a virus, a terrorist if you will, and the balance is disrupted, endangering the life of the plants and animals in the system. The political scientist, economist, and sociologist can refer together to this as an analogy that they can all understand, and use the points of similarity between their own system and the analogy to begin to understand one another in similar terms.

Ultimately, groups of students are assigned a broad issue and asked to decide upon a particular problem to solve within that general issue. I expect them to create analogies in their efforts to solve the problem and integrate their disciplinary perspectives in the process. The end of the semester culminates in a "Symposium," which is intensively interactive, involving

individual research papers, group presentations, and post-presentation discussions motivated by required prepared questions. The lessons from the project are manifold primarily because of the variety of details in the students' work. But beyond these details, students soon realize that the large issues they are assigned are connected with one another, either conceptually or in fact. Students understand that networks of interdisciplinary connections are virtually endless. Despite the lessons learned, this approach is limited and requires some serious rethinking.

Rethinking Translation and Analogical Thinking

Broadly understood, translation can be many things. Sallis (2002, pp. 22-25) notes the extremes: from the most common understanding of translation (interlingual, e.g., French into Japanese) to Nietzsche's observation that all language is translation—and bad translation at that—inasmuch as humans necessarily understand things in their world first as an image, a first translation, and then, in a second translation, from the image to sound. Both of these (Nietzschean) translations are really only metaphor (both the image and the sound are themselves metaphors), and this reflects, as Sallis points out, Jakobsen's understanding of intralingual translation, which is essentially interpretation of language within the same language. Whether between or within language, or in the Nietzschean view of translation as the formation of language, all translations are bad, I would argue, to the extent that metaphors, like their more systematic cousins, analogies, are attempts to capture similarity. What's more, capturing similarity in order to solve the problem of translation (indeed, in order to solve problems) misses the point of interdisciplinary translation. This means to an end cannot bring newness into the world.

I should note that just because reliance upon similarity results in bad translations, the production of similarity is not itself an unimportant human activity. It is perhaps the most fundamental human linguistic activity. Walter Benjamin (1986, pp. 333-36) says as much as he argues that, oddly enough, in a way analogical to the way children acquire language (by mimicking what they hear and observe), ancient people linguistically reproduced the world around them by approximating in movement (dance) and language (onomatopoeia) what they saw and heard. The production of metaphor is fundamental to what Benjamin calls "the linguistic being of man: to name things" (p. 317). If language is anything, it is tropic, and it is certainly imbued with metaphor, derived as it is from the ancient proclivity to name. This does

not, however, excuse us from relying upon the similarity of metaphor, of naming (McCormack, 2002). To put it simply, relying upon the similarity of metaphor is the business of the disciplinarian, whereas the task of the interdisciplinarian is to translate in difference.

Given Nietzsche's assertion, formulating the idea of translation and putting it into practice is certainly an ancient undertaking, indeed, as old as language itself, by Benjamin's reckoning, and therefore subject to centuries of interpretation and revision.³ The lesson of history in this case, it seems to me, is just this: one would be foolish to adhere to a single understanding or theory of translation. In fact, this is precisely the point that interdisciplinarians as translators ought carefully to consider in their attempts to achieve integration. When interdisciplinary thinkers claim authority as translators, they in effect claim an approach to translation, which to a greater or lesser degree accomplishes the task of bringing newness into the world. The key to good translation, I want to argue, is to see to it that newness continues to be possible—that it continues to be new. Newness, by this understanding, is not simply an invention, a solution, product, profit, achievement, or for that matter arrival at that amorphous thing called excellence—in short, it is not an ending. It is quite the opposite: it is an opportunity to continue thinking because it relies not simply upon the similarity of language, those efficient, painless, and discipline-adhering tropes of metaphor and analogy, but more importantly upon the difference of language. The difference that both metaphor and analogy bear is all too often disregarded in favor of a quick and painless solution.

This seems to be the natural outcome of centuries of disciplinary division and specialization—and socialization into that division and specialization—witnessed in the zeal for quick fixes, fast profits, and the glossing over of the world's ongoing and seemingly never-ending evils: corruption, impoverishment, violence, colonization, slavery, abuse, injustice, war. When I observe a group of my students finishing an assigned task (to solve a problem) too quickly, I am reminded of the countless instances of failed, failing, or incomplete solutions to the world's problems.

In other words, and in terms of our method of analogical thinking, seeking similarity in analogy is not really at all an interdisciplinary process. It glosses over difference, disregards it, or appropriates it. Instead, the method of analogical thinking might do better to begin with the necessary evil of determining analogical similarity, but then proceed with the more important necessity of discovering analogical difference.

To explain this I want to return to where I began, with Homi Bhabha's

(1994) discussion of how newness enters the world. Many of us are familiar with Bhabha's work as a postcolonial theorist. I find his thinking to be particularly insightful on the point of translation, and valuable to anyone who understands how profound the stakes are in this thing we do called interdisciplinary thinking. Bhabha's ideas proceed in the unsettled and uncharted territory of the in-between. He writes about migrants, for example, who survive, taking Derrida's theoretical "after life of translation" (survivre) to the lived world of the migrant. This is the way that Bhabha explains how the migrant discovers (again, in Rushdie's phrase) how newness enters the world: "The focus is on making linkages through the unstable elements of literature and life—the dangerous tryst with the 'untranslatable'—rather than arriving at ready-made names" (p. 227).

I would put it this way: migrants are translators. They are interdisciplinarians par excellence because they do not rely upon similarity. They invent their world (out of necessity). I imagine my students to be migrants (and, in fact, I base an entire day's discussion/lecture on that notion), and hope to inspire in them that same imaginative self-image. Alternatively, translators are migrants, and are therefore (necessarily) inventors, dangerously involved in the "untranslatable."

Bhabha's illustration of this idea goes to the imposition of Community (or Society, both capitalized), in some particular spatial and temporal location, upon the members of a community (lower case), who are forced to attempt to announce themselves. Bhabha says this: "What is at issue in the discourse of minorities is the creation of agency through incommensurable (not simply multiple) positions. Is there a poetics of the 'interstitial' community? How does it name itself, author its agency?" (p. 231).

As I read and think about these words, I see my students busily at work in their active learning roles as problem solvers, faced with exactly the same difficulties and questions. Of course, in Bhabha's world, Community is colonialism whose imperialist naming of the colonized relies heavily on similarity (homogenization, regulation, familiarization). In the face of this all-encompassing architecture, the colonized work to bring newness into the world, starting with themselves—and their announcements as such are proclamations of newness—when they are able to divest themselves of the spatial and temporal constraints of the Community, of colonialism. (Of course, this is the lesson for those people who today find themselves in a postcolonial predicament.) If the project I assign my students is to solve a problem within groups of active-learners, my assignment is the colonial imposition (in so many words, "you are problem solvers—now

get to work.”) Their task, until now, has been to solve a problem successfully.

But I am inclined now to think that their more important task would be to escape the confines of that imposed Community, in which I mandate their achievement via their relatively easy recognition of and acquiescence to similarity, and send them through a systematic process of analogical thinking (in so many words, “find integrative unity and homogenize it, regulate it, and make it familiar”). Such an achievement seems to me to run roughshod over the real point of interdisciplinary thinking: to preserve difference of thought and being so that it can be the source of future invention, and ongoing discoveries of newness. For scholars and students who do business-as-usual theorizing and problem solving, analogical thinking can be problematic, and at worst ultimately hegemonic. Let me draw this out a bit further to make clear the point.

Eve Tavor Bannet (1997) connects analogy and translation by consulting Wittgenstein (1958, 1969), whose later thinking turns on the idea that meaningful naming takes place in the lived world. For Wittgenstein, meaning is affected by the ongoing influence of differences within language. The resulting changes are due to translation, which is, in turn, accomplished by analogy, but not the analogy that pursues similarity. The argument resides within the nature of language itself—the way language is dynamic and ever changing. As such, it is both the source of newness and the result of newness. It might also be the source and the result of similarity, but both of these are synthetic impositions that neither permit nor encourage translation. Quite distinct from the hegemonic analogical processes that can afflict business-as-usual problem-solving tasks, the meaning of language changes through analogies of difference rather than of similarity (McCormack, 2004).

Wittgenstein’s “cure is to correct the grammar of our analogical reasoning by reminding us that analogies can travel from elsewhere and that analogies travel otherwise” (Bannet, 1997, p. 6). Analogies are more than the bearers of resemblance—they are, more importantly, the vehicles of difference. In terms commensurate with Bhabha’s call to bring newness into the world, analogies can help us repair the damage of hegemonic analogical thinking. Bannet concludes: “Wittgenstein’s grammars of analogy are also grammars of possibility and hope... [B]y noticing the fluid, analogical way we ordinarily use words, they demonstrate how this translation of language enables us to speak and think ‘the truly apocryphal view of the world [which] is that things do not repeat themselves’” (Wittgenstein, 1980, p. 60e, in Bannet, 1997, p. 9).

Revising the Means and the Ends: A Few Concluding Thoughts

A.K. Ramanujan opposed poststructural/postcolonial approaches to translation (Dharwadker, 1999) because he had reservations about the indeterminacy that he thought existed in those approaches. Ramanujan was more impressed with Jakobsen’s structuralism because it supported what Ramanujan felt as the chasm of difference between, for example, medieval Tamil and modern English. As for Derridean deconstruction (or Bhabha’s hybridization, for that matter), Ramanujan said, “I don’t know what to do with it” (p. 130).

Ramanujan is exemplary of many translators (whether Western or non-Western) who cannot see the practical use of translation that emphasizes difference. The problem with structural approaches to translation is that there remains the desire for determining similarity, and when that is not possible to achieve, to explain it. Dharwadker describes Ramanujan’s process of translation as a contextualization of the text, at times accommodating the target language, at times accommodating the original, and at times accommodating the potential audience. None of this is particularly odious, and I’m sure that Ramanujan’s work has given joy and wonder to his readers, but as a means of cultural translation, it remains limited in its ability to bring newness into the world, newness not being a structural explanation of life in medieval India, but a new understanding by virtue of the conflict and incommensurability (which Ramanujan acknowledges) between life in medieval India and, say, modern India or France.

But the disagreement among scholars such as these over the best way to translate also makes clear the difficult point of putting into practice the philosophical principle of translating in difference. In fact, the best clue as to how one might do this already appears in my current approach to teaching translation as interdisciplinary thinking. I described earlier six possibilities of translation that I present to my students: imposition, common understanding, hermeneutic understanding, tolerance, respect for difference, and invention through difference. Each of these, I suggested, is valid and potentially useful. It is quite likely that any combination of them is at work in any attempt to understand a text, or in any approach to a problem that begs to be solved. Understanding, or problem solving, cannot be exclusive in its complexity. As far as I can tell, invention, that is, the possibility of ongoing invention via translation that is based in the difference that inheres within disparate perspectives is more likely to succeed than it is to fail if structural,

cultural, linguistic, or disciplinary similarity is not allowed to impede the creative production of newness.

In that case, I will not throw out the basic design of the method of analogical thinking, but I shall want to follow the advice of André Lefevre (1999, p. 77), who wonders how to solve what he calls “the most important problem in all translating and in all attempts at cross-cultural understanding”:

The most pressing task ahead, as I see it, is the gradual elimination, in translating between cultures, of the category of analogy, as pernicious as it is, initially, necessary. When we no longer translate Chinese T’ang poetry “as if” it were Imagist blank verse, which it manifestly is not, we shall be able to begin to understand T’ang poetry on its own terms. (pp. 77-78)

Analogy is unavoidable, as is metaphor. It need not, however, be blindly accepted as the hegemony of language that it can be when interdisciplinarians find it expedient to make it so. We are forced to struggle not only with the creation of useful analogies, but also with the dismantling of them in the service of our mutual responsibility of invention in the face of the world’s problems.

In the classroom, I intend, in the first instance, to make this clear to my students—to make their only occasional complacency and dependency upon disciplinary thinking transparent to them. I will press to provoke creative solutions to problems that allow students to announce their difference of thinking. And I intend to have students clearly articulate (despite adversity not only in the form of the overwhelming task before them in their designated issue and specific problem to be solved but also their adversity in the form of the necessary evil of their method) how they invented something altogether new—how they brought newness into the world—and how their albeit tentative, and no doubt only partial solution continues to make possible further invention. The stakes are too high, and the possible results too wonderful, for them, or me, to take the assumptions of the methods of interdisciplinary integration for granted.

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Notes

¹ Homi Bhabha (1994) invokes Salman Rushdie’s phrase found in his novel, *Satanic Verses*.

² See also Kedar-Cabelli (1988).

³ A good collection of diverse approaches to translation over the years can be found in Shulte and Biguenet (2002). For an interesting critical assessment of many of these approaches, see Robinson (1997).

References

- Bannet, E.T. (1997). Analogy as translation: Wittgenstein, Derrida, and the law of language. *New Literary History* 28(4): 655-672.
- Benjamin, W. (1986). On the mimetic faculty. In *Reflections: Essays, aphorisms, autobiographical writings*. Peter Demetz (Trans.). New York: Schocken Books.
- Bhabha, H. (1994). How newness enters the world. In *The location of culture* (pp. 212-235). New York: Routledge.
- Dharwadker, V. (1999). A.K. Ramanujan’s theory and practice of translation. In Susan Bassnett & Harish Trivedi (Eds.), *Post-colonial translation: Theory and practice*. New York and London: Routledge.
- Gentner, D. (1983). Structure mapping: A theoretical framework for analogy. *Cognitive Science* 7(2): 155-170.
- Kedar-Cabelli, S. (1988). Analogy — From a unified perspective. In D.H. Helman (Ed.), *Analogue Reasoning* (pp.65-103). Boston: Kluwer Academic Publishers.
- Lefevre, A. (1999). Composing the other. In Susan Bassnett & Harish Trivedi (Eds.), *Post-colonial translation: theory and practice* (pp. 75-94). New York and London: Routledge.
- McCormack, B. (2004). Undoing the hegemony of analogy: Beyond meaningless naming in international relations. Paper presented at the annual conference of the International Studies Association, Montreal, Quebec, Canada.
- McCormack, B. (2002). Postcolonialism in an age of globalization: Opening international relations theory to identities in movement. *Alternatives: Global, Local, Political* 27(1): 99-115.
- Robinson, D. (1997). *What is translation? Centrifugal theories, critical interventions*. Kent, Ohio, and London: Kent State University Press.
- Sallis, J. (2002). *On translation*. Bloomington and Indianapolis: Indiana University Press.
- Shulte, R. & Biguenet, L. (2002). *Theories of translation: An anthology of essays from Dryden to Derrida*. Chicago and London: University of Chicago Press.
- White, J.B. (2001). *The edge of meaning*. Chicago and London: University of Chicago Press.

- White, J.B. (1990). *Justice as translation: An essay in cultural and legal criticism*. Chicago and London: University of Chicago Press.
- White, J.B. (1987). Intellectual integration. *Issues in Integrative Studies* 5:1-18.
- Wittgenstein, L. (1980). *Culture and value*. G. H. Von Wright (Ed.), Peter Winch (Trans.). Oxford: Oxford University Press.
- Wittgenstein, L. (1969). *On certainty*. Oxford: Blackwell.
- Wittgenstein, L. (1958). *Philosophical investigations*. Oxford: Blackwell.