

Article

"Shoring up the Fragments of the Translator's Discourse: Complexity, Incompleteness and Integration"

Michael Cronin

Meta : journal des traducteurs / Meta: Translators' Journal, vol. 40, n° 3, 1995, p. 359-366.

Pour citer cet article, utiliser l'adresse suivante :

<http://id.erudit.org/iderudit/002438ar>

Note : les règles d'écriture des références bibliographiques peuvent varier selon les différents domaines du savoir.

Ce document est protégé par la loi sur le droit d'auteur. L'utilisation des services d'Érudit (y compris la reproduction) est assujettie à sa politique d'utilisation que vous pouvez consulter à l'URI <http://www.erudit.org/apropos/utilisation.html>

Érudit est un consortium interuniversitaire sans but lucratif composé de l'Université de Montréal, l'Université Laval et l'Université du Québec à Montréal. Il a pour mission la promotion et la valorisation de la recherche. Érudit offre des services d'édition numérique de documents scientifiques depuis 1998.

Pour communiquer avec les responsables d'Érudit : erudit@umontreal.ca

SHORING UP THE FRAGMENTS OF THE TRANSLATOR'S DISCOURSE: COMPLEXITY, INCOMPLETENESS AND INTEGRATION

MICHAEL CRONIN

Dublin City University, Dublin, Ireland

Résumé

L'auteur analyse le paradoxe que constituent, en théorie de la traduction, la nécessaire reconnaissance de l'inachèvement de toute traduction et l'exigence d'une approche globale. Il commence par poser que le phénomène de perte ne doit pas être stérilement dénoncé mais compris comme inhérent à la nature de la traduction marquée par ses limites. La notion de séparation lui sert à préciser ce point sur le plan psychologique, de même que l'exemple politique du cosmopolitisme et la métaphore du voyage comme forme de retour à soi. Le faible rayonnement de la traductologie peut, quant à lui, être corrigé par la recherche d'une théorie synthétique, cohérente et interdisciplinaire qui, à l'instar des théories du chaos en physique, saura rendre compte de la complexité du processus traductif sans en ignorer la créativité.

There is no entry for translation in Gustave Flaubert's *Dictionnaire des idées reçues*. One can imagine what the entry for *Traduction* might read like: "Laisse toujours à désirer. Ne manquez pas de citer la maxime italienne *traduttori traditori*." Translation and translation studies have always been haunted by the nightmare of incompleteness. From the obsequious humility of Renaissance translation prefaces to post-structuralist insistence on the limits to translation, the emphasis throughout much of the history of translation has not been on what translation can do but what it cannot.¹ The fraught nature of equivalence, the influence of linguistic relativism on translation debates, the political nature of the translation transaction, all point to the approximate, limited, problematic transformation of language that goes under the name of translation. Nor is this cautious modesty confined to theoreticians. In their French-English course in translation method entitled *Thinking Translation*, Sándor Hervey and Ian Higgins counsel the student of translation against undue optimism:

the transfer of meaning from ST to TT necessarily involves a certain degree of **translation loss**: that is, a TT will always lack certain culturally relevant features that are present in the ST. Once one accepts the concept of inevitable translation loss, a TT that is not, in all important respects, a replica of its ST is not a theoretical anomaly, and the translator can concentrate on the realistic aim of cutting down on translation loss, rather than the unrealistic one of seeking *the* ultimate translation of the ST. [their emphasis] (1992: 24)

This article will argue that translation theory can only suffer from an undue preoccupation with translation loss and the aporias of equivalence and that the contribution of translation to human understanding runs the risk of perpetual marginalisation if translation studies does not reconsider its object of study in a different light.

THE NECESSARY INCOMPLETENESS OF TRANSLATION

The story of Babel has a happy ending for translators. Had the tower been built, linguistic sameness might eventually have made room for counsellors and therapists but

there would have no schools of translation, no interpreting booths, no translation journals. The success of the construction project would have signalled the end of the difference that is translation's founding moment. The *limited* nature of translation constitutes its very *raison d'être*. To speak of translation loss is in a sense something of a tautology in that it is the very loss of ideal equivalence that brings translation into being in the first place. The references to *traditori*, the claims that poetry is what gets lost in the translation and so on that are repeated with dismaying predictability in discussions of literary translation, in particular, ignore the fundamental fact of translation, that difference implies limits. However, this does not entail a theory of abjection, a shameful admission of the imperfect, approximate nature of the translation enterprise but lays the basis for the integration of translation into a fuller understanding of language in human development and society.

Daniel Sibony in *Les trois monothéismes* underlines the importance of the Sabbath in the Biblical account of the Creation:

La création s'est faite par vagues successives — six «jours» —, et la septième vague, qui en principe, doit accomplir et achever, voilà qu'elle donne sur un jour vide ; elle *est* le jour vide, l'évidement du temps qui se renouvelle. On voit le paradoxe : quand il fut créé tout ce qui était mûr pour l'être, la Création était *encore* inachevée ; et voilà que son achèvement l'a fait s'ouvrir sur un jour vide où ce qui se crée, c'est le Rien. L'achèvement donne sur le vide ; la Création est donc radicalement inachevée : il reste donc encore à créer, beaucoup, infiniment. (1992: 120)

It is the very incompleteness of the Creation that allows the possibility of further creation. In the realm of translation, it is the necessary incompleteness of translation that guarantees the viability of future translations. Even the most cursory glance at the history of texts shows that particularly the more prestigious texts in a cultural tradition are repeatedly translated. Thus, what is often dismissed as translation's shortcoming, its failure to achieve full equivalence, is in fact the *sine qua non* of its creative renewal. When Derrida claims that the tower of Babel "exhibits an incompleteness, the impossibility of finishing, of totalizing, of saturating, of completing something on the order of edification", it is important to stress not so much, as he does, the necessity of translation itself as the incompleteness that is the sustaining principle of translation. Marc-Alain Ouaknin drawing on the cabbalistic notion of *Tsimtsoum* or contraction in *Bibliothérapie: lire, c'est guérir* relates the empty space of creation to the notion of a necessary distance that allows the other to emerge:

La Création à partir de l'espace vide rend possible l'altérité à partir de la séparation. Séparation, distanciation, différenciation, à partir desquelles aucune fusion ne sera possible. Seuls des ponts pourront être jetés pour essayer de franchir l'abîme sans d'ailleurs jamais y parvenir. (1994: 408)

In personal relationships, a fusional totality prevents the emergence of the individual self and the notion of a relationship itself is predicated on the idea of separation, distance. This is what Ouaknin calls after Lévinas the paradox of a "relation sans relation" (1994: 411). The separation involved in translation occurs at an *extrinsic* and *intrinsic* level. The extrinsic level is the most obvious, texts in different languages are separated from each other in terms of history, culture, syntactic, lexical and textual conventions. The intrinsic level is the separation or the distance that the translators feel with respect to their own language in translation. The Canadian writer and translator Joyce Marshall claimed that "I'm told my translations don't sound like me" and Sherry Simon and David Hommel summing up Marshall's attitude to the translation process see her approach to translation "as a means of estrangement from the self, of taking leave of a too-familiar

language" (1988: 15, 19). Intrinsic separation is not without its traumas. Ouaknin refers to particular life-events such as going to school for the first time, birthdays, the onset of puberty, marriage, etc. as "des moments de promotion existentielle" and he continues, "si on peut parler à chaque fois de *sevrage* et de *castration*, c'est que toutes les étapes sont dialectiquement accompagnées d'une perte, d'une séparation ou d'un deuil" (1994: 288). The weaning from the mother-tongue can bring with it a sense of liberation, of autonomy, the opening up of a separate space of cultural creativity and play but it can also provoke a strong sense of loss, feelings of bereavement as the speaker leaves the fusional intimacy of monolingualism. Indeed, it is regrettable that in the pedagogy of translation, more attention is not devoted to the experience of disorientation and privation that results from students' estrangement from their mother tongue. Furious onslaughts in red ink against anglicisms and gallicisms (or whatever -isms correspond to the language pair in question) may be counterproductive as a threatened mother-tongue assembles a variety of defence-mechanisms. The emotional stakes in translation are higher than is commonly assumed in the teaching and theorisation of the discipline. Precisely because fusion through total transparency or full equivalence is impossible in translation the attempts to cross the "abîme" or the divide between languages is always provisional.² The bridges are always in need of repair.

THE BENEFITS OF RESISTANCE AND THE DIFFICULTIES OF COSMOPOLITANISM

The limits to translation like the rules of a game can generate any number of strategic possibilities. The Canadian poet, translator and teacher Robert Melançon invokes the notion of 'beneficial resistance' in poetry translation:

In translating, a poet works within constraints similar to those once imposed by strict rules of versification; he or she turns to translation for the same reasons that sonnets or Pindaric odes were once composed — to be confronted with a beneficial resistance [...] When translating, you discover your limits abruptly, but you also come upon unknown resources in your own language and reap the profits. (1988: 21)

Melançon suggests that what the adjectives, 'limited' and 'unlimited' have in common is the substantive 'limit' and that the limitedness of translation should be seen as a source of creative challenge rather than as a cause for apologetic self-effacement. This argument has an interesting corollary in the cultural and political sphere. Defenders of international languages such as Esperanto have long pointed to translation as one of the evil necessities of a linguistically divided world. Speaking one world language would eliminate the costs, tedium and potential for misunderstanding of linguistic mediation. Language difference like the nation-state is part of a ruinous historical inheritance that generates conflict and impedes understanding between peoples.³ On the other hand, translation is celebrated in international congress after international congress not as the enemy but as the ally of cultural cosmopolitanism. In his Welcome Address to the XIIth Congress of the *Fédération Internationale des Traducteurs* in 1990 Mladen Jovanović uses a familiar metaphor to describe the "craft and vocation of translators who, from the Tower of Babel until this day, have been building the bridges of understanding and friendship so that no man, no country on Earth becomes, and remains, 'an island unto itself'" (1991: 14). The metaphor was unfortunate. The Congress was held in Belgrade and within two years war had broken out in the former Yugoslavia, a war which has been characterised not only by a singular lack of understanding and friendship between the warring factions but by the destruction of a number of historical bridges in the region. Pascal Bruckner in *Le vertige de Babel* discussing the situation in Eastern Europe claims that the problems arise not from the excessive importance of national boundaries or limits but from their uncertainty:

Contrairement à un cliché trop répandu, ce n'est pas la sacralisation des frontières mais au contraire leur incertitude qui a été le vrai malheur des peuples, surtout d'Europe orientale, ballottés au gré des guerres et des invasions d'une tutelle à une autre. La grande saveur des frontières, une fois reconnues et garanties, c'est qu'on peut les franchir, jouer à leurs marges, exercer autrement plus exaltant que leur abolition pure et simple. Seuls les conquérants rêvent d'effacer les frontières, surtout celles des autres ! (1994: 47)

Bruckner's contention that borders allow for all manner of transgressive possibility is part of a larger argument where he challenges the pseudo-internationalism that he sees taking the place of a genuine cosmopolitanism. Jetting across continents and time-zones and communicating in the *lingua franca* of broken English does not make one cosmopolitan, "Transiter d'une civilisation à l'autre est l'équivalent d'une mue, d'une métamorphose qui implique peine et travail, et n'a rien à voir avec le glissement feutré du *jet* reliant tous les points de la planète" (1994: 31). Learning another language and culture is a long, painful and often bewildering process (see my remarks on weaning above). Good translators acquire their knowledge at a high price. It is important therefore that they recognise the limits to their knowledge and resist the pressures to embrace a superficial multilingualism. One of the most frequent questions translators are asked when they reveal their profession is, "How many languages do you speak?" The disappointment is tangible if the reply is two (including the mother tongue) or possibly three. The questioner's conclusion is that the translator must be either incompetent or lazy or both. Translation schools in response to the increasingly unrealistic demands of international organisations can also succumb to low-level multilingualism allegedly producing students with mother tongue plus three or four languages but where the levels of achievement in each language can vary greatly. Limits not only in translations but in translators themselves must be seen as a guarantee of depth rather than as a proof of inadequacy.

The task of the translator is further complicated by the necessity for any genuine practitioner of the cosmopolitan art that is translation to be fully acquainted with his/her own mother tongue and culture. As Bruckner points out, "Aller vers les autres implique donc une patrie, une mémoire qu'il faut cultiver (même si on les relativise): je n'accorde l'hospitalité à l'étranger qu'à partir d'un sol où je peux l'accueillir" (1994: 43). Michelle Boujea claims that "translating is travelling, taking a trip to a foreign country."⁴ The experience of travel in other countries involves commonly a discovery of self as much as it does of the other (you realize how Irish/French/Canadian/English you are). The encounter with difference sharpens the sense of identity as identity is predicated, by definition, on difference. Travel literature is as much a record of the exploration of self and the writer's native culture as it is an account of experiences in foreign parts.⁵ Translations are a form of travel literature or conversely travel literature can be seen as a form of translation.⁶ In this respect, Jean-Michel Rey discussing the translation work of Antonin Artaud is correct to underline the paradox of all translation activity, "une façon de revenir à soi par le biais de l'autre, par l'épreuve de l'étranger" (1991: 16). The initial movement in translation is one of openness, leaving one's own language and culture if only to return later. Ouaknin sees translation in therapeutic terms as curative. Illness is enclosure, blockage, the inability to escape from the prison of the self. Translation brings with it an opening up towards another language, culture, world. If "*Guérir, c'est traduire !* [his emphasis]" this is because "la guérison est passage, voyage et métaphore, sortie de soi, modalité d'être dynamique, qui nous fait homme, différent de la passivité ontologique de l'animal et de l'objet" (1994: 162, 163). Further on, he argues that, "La trans-duction de l'entre-deux-langues ouvre l'être à son «pouvoir être autrement», à son projet d'être" (1994: 164). In the space between languages, there exists the opportunity for change, of

identity evolving. The stress is on the potential and possibility of translation not on loss, approximation, impossibility.

FALLEN ANGELS AND DEEP THEORIES

Michel Serres places translators very firmly in the company of angels. The latter "figurent donc à merveille nos télégraphistes, facteurs, traducteurs, représentants, commentateurs [...] les armées de nos nouveaux travaux" (1993: 296). Translators in the modern world are involved in the angelic tasks of transmission, communication, annunciation. For Serres, "les pires Anges se voient ; les meilleurs disparaissent" (1993: 102). The fallen angels are the parasitic hierophants of the media where it is the messenger not the message that is all-important. Translators are generally accorded the grace of invisibility but whether this is necessarily sanctifying is a question that translators and theorists might like to ask themselves. Through the impetus of post-structuralist and feminist translation theory more attention has been devoted to the importance of the translator's signature, the active presence of the translator in the translation process and product but translation studies itself has yet to emerge from relative disciplinary obscurity. This statement may surprise some when one looks at the growing number of translation schools, the publication of new journals each year in the area of translation studies and the setting up of new translation studies associations. However, though we may talk to each other more and more (which, of course, is a good thing), it is less apparent that scholars in translation studies are talking to other people, apart from colleagues in comparative literature. In other words, though the discipline of translation would seem to be powerfully equipped in view of the spread of its interests and the cogency of its concerns to have a substantial impact on intellectual debates, its impact on other academic disciplines, with certain notable exceptions, has been negligible.

Though it may be exaggerated to talk about a continuing crisis of confidence in translation studies, the tradition of apologetic approximation with its implication of inadequacy that has already been referred to has not helped. However, the problem may be situated at another level, the level of deep theory. John Barrow has defined deep theory as a theory which, "is able to provide explanations for a wide range of things with a minimal contribution being made to the conclusion by a large number of input assumptions" (1992: 5). Einstein's general-relativistic equation describes in one short formula the universal features of gravitational fields throughout the cosmos just as Maxwell's equations had earlier described the behaviour of electromagnetism throughout the universe in a few lines. Theory is what differentiates science from stamp collecting. If it was not possible to offer algorithmic compressions of data, to abbreviate the strings of symbols or data in some way, then one would be faced with "the indiscriminate accumulation of every available fact" (1992: 11). The physicist Murray Gell-Man links pattern and complexity, "Effective complexity is then related to the description of the regularities of a system by a complex adaptive system that is observing it" (1994: 50). To gauge the effective complexity of system or string we look at the length of a concise description of the regularities of that system or string. One of the difficulties for translation theoreticians is recognising the complexity of the process and product while at the same time trying to produce a coherent theory. Is it indeed the failure to find a satisfactory Grand Unified Theory for translation that makes its theoreticians reluctant to evangelise in other disciplines? Does theoretical self-doubt limit the impact of ideas originating from the discipline? Part of the problem may lie in whether translation theory is seen to be substantiated by analytic or synthetic statements. In the case of the latter, the truth of any statement in translation theory would have to be systematically checked against the evi-

dence of translations themselves. The former, on the other hand, are meaningful statements that are logically necessary such as "blind men cannot see." While analytic theories exercise their own fascination it is highly likely that any convincing or worthwhile theories in translation will be synthetic in nature.

We have seen earlier that the incompleteness of translation should be seen as a strength and not necessarily as a weakness. This observation applies also at a theoretical level. The fact that scientists are unable to explain why the fine-structure constant in our universe has a value close to $1/137$ rather than $1/145$ does not prevent them from using the fine-structure constant to arrive at an understanding of how its value determines other things. The British astronomer, John Barrow makes the point that, "There exists a form of hierarchical structure in Nature which permits us to understand the way in which aggregates of matter behave without the need to know the ultimate microstructure of matter down to the tiniest dimensions" (1992: 97). The lesson here for theoreticians of translation is that theoretical descriptions do not have to be complete in order for theoretical statements to have a purchase on the real. Quite apart from the philosophical or political reservations one might have with respect to totalizing theories, incompleteness rather than completeness is the rule rather the exception in the realm of theoretical enquiry. Indeed, it may be, as Barrow suggests, that the desire for single, over-arching explanations is peculiar to cultures that are the products of monotheistic religions (1992: 7-8). One God, one origin, one explanation.

THEORETICAL PARADIGMS AND INTEGRATIVE APPROACHES

The partial nature of our explanations should not be used, of course, as an excuse for abandoning the attempts to explain. What demands constant revision is the appropriateness of the paradigms that guide these attempts. Linguistics, information theory, stylistics, systems theory, gender theory, semiotics, cognitive psychology are but some of the theories and disciplines that have shaped the theoretical orientations of translation studies in recent decades.⁷ It seems crucial that in any discussion of translation the *dynamic* and *complex* nature of the phenomenon be acknowledged. To this extent, the insights of theories that concern themselves with the complex and the dynamic are worth considering with all the precaution that argument by analogy must entail. One of the simplest and most interesting phenomena in translation teaching is that one can give ten, fifty, a hundred students the same text to be translated and no one translation is the same. The differences are not simply to do with questions of ability. Students of comparable ability will often produce translations that are substantially different. In the theory of non-linear systems, sensitive dependence on initial conditions is repeatedly stressed. This is popularly known as the 'butterfly effect' where one small hailstone shower in Ohio can trigger off a hurricane in the Caribbean. Researchers in Harvard, MIT and McGill studying cardiac problems found that a small change in one parameter could, in the words of James Gleick, "push an otherwise healthy system across a bifurcation point into a qualitatively new behaviour" (1988: 291). Non-linear problems amplify errors so quickly that even after a very short period of time predictions can become worthless. The standard linear approach where the behaviour of the whole can be analysed by determining the behaviour of the parts becomes inoperative. It becomes necessary to adopt a holistic, global approach in the case of a non-linear system. With respect to translation, the reductionist approach proved conspicuously ineffective in the case of contrastive stylistics where decontextualised translation units exemplifying translation problems did little to explain the nature of the translation of larger, supra-sentential units. To what extent in translation is there sensitive dependence on initial conditions? If the connotative values of words in

the source text cannot be comprehensively mapped can we talk about 'butterfly effects' in the target text? Or is the notion of parametrical democracy misleading in translation insofar as Robert Larose and others suggest that parameters are ordered hierarchically and that a parametrical variation at one level will have significantly greater effect than variation at another (1989: 191-291)? This indeed is one area of research where computer modelling could prove useful in establishing what are the effects in the target text of variations in SL parameters. Even here, however, depending on text type, the model could become increasingly unwieldy as it attempts to specify the full range of connotative values of lexical units.

The complexity of translation description is the complexity of any complex adaptive system whose effective complexity is greatest in the intermediate area between order and disorder. Murray Gell-Mann takes as an example of a complex adaptive system, life itself:

For example, if the environment [...] is the center of the sun, at a temperature of tens of millions of degrees, there is almost total randomness, nearly maximal algorithmic information content, and no room for effective complexity or great depth — nothing like life can exist. Nor can there be such a thing as life if the environment is a perfect crystal at a temperature of absolute zero, with almost no algorithmic information content and again no room for much effective complexity or great depth. (1994: 116)

To return to our translation classroom, there is no such thing as total order in the translation process. A group of translation students will not produce an identical text. There is not total disorder or randomness either. For all the differences between individual translations, they are recognisable (with some dispiriting exceptions!) as translations of the same source text. The translation process lying between order and disorder has all the creativity of a complex adaptive system but also all of its complexity. Determining that complexity depends in part on the 'coarse graining' of the theory used *i.e.* the level of detail up to which the system is described with finer details being ignored. Adequate accounts of complex, non-linear systems also demand that specialization be supplemented by integration. Theoreticians of complexity in the Santa Fe Institute in the United States and elsewhere have realized that the whole system has to be studied, "however crudely that has to be done, because no gluing together of partial studies of a complex nonlinear system can give a good idea of the behaviour of the whole" (1994: xi). Avoiding more ambitious, integrative theoretical speculation because of a fashionable distaste for 'totalising' theories is to miss the point. Incompleteness is the very condition of translation and holistic accounts of the translation process do not eliminate the absence of completeness or closure in translation but on the contrary magnify its importance.

Excessive humility on the part of translators in the past did little to improve their pay and conditions. The better part of a valour was a lack of discretion. Translation theorists will gain little in terms of intellectual advantage if they content themselves with the humble certainties of increasing specialization. Translation theory needs the Apollonian, the analytic, the reductive but it also needs more stress on synthesis and integration. As matters stand, translation studies conferences are more often than not a dialogue of the deaf, students of a specialism addressing other students from the specialism. We need more interdisciplinary research where the machine translation expert will sit down with the cultural historian and the terminologist with the critical theorist. To those that object that the specialisms are too radically different, that there is no common language, one has only to look at the experience of research workers in complex adaptive systems where biologists, physicists, economists, computer specialists and historians established a *lingua franca* that allowed for theoretically insightful co-operative work.⁸

The goal of translation research may indeed seem paradoxical, integration without completeness. The paradox is only apparent, however, as we have tried to show in this article through stressing the necessity of separation and estrangement, the fraught construction of the cosmopolitan bridge. Nor should the reorientation of translation research towards the holistic concerns of more recent theories of natural and human phenomena be seen as the reemergence of monotheistic atavism with a desire for single explanations. Whatever answers we come up with to our questions are certain to be complex but they might finally put the ghost of treason to rest. They might also embolden translation theorists to play a more central role in the intellectual and cultural life of the planet rather waiting for the crumbs to fall from other disciplinary tables.

Notes

1. Theo Hermans, "Images of Translation: Metaphor and Imagery in the Renaissance Discourse on Translation", in Theo Hermans (Ed.), *The Manipulation of Literature*, London, Croom Helm, 1985, pp. 103-135. Lawrence Venuti, "Introduction", pp. 1-17, in Lawrence Venuti (Ed.), *Rethinking Translation*, London, Routledge, 1992.
2. A simple example of this is the status of the teacher's fair copy in a traditional teaching situation. It usually undergoes a number of changes as students come up with different, more ingenious or more satisfactory solutions to translation problems. In this respect, translation studies has more of the elements of a participatory democracy than is perhaps the case in other disciplines.
3. Opponents of natural languages have commonly cited the need for translation as one of the greatest drawbacks of the latter. For a linguistic defence of the plurality of human languages see Marina Yaguello, *Les fous du langage*, Paris, Seuil, 1984, pp. 141-153.
4. Cited by Michel Buttiens in Homel and Simon, p. 59.
5. For a classic description of this phenomenon between the two world wars see Paul Fussell, *Abroad: British Literary Travelling between the Wars*, New York, Oxford, 1982.
6. For an examination of certain aspects of the translation phenomenon in travel writing see Michael Cronin, "Fellow Travellers: Contemporary Travel Writing and Ireland", in Barbara O'Connor and Michael Cronin (Eds.), *Tourism in Ireland: A Critical Analysis*, Cork, Cork University Press, 1993, pp. 51-67.
7. Accounts of these theoretical influences can be found in Robert Larose, *Théories contemporaines de la traduction*, Québec, Presses de l'Université du Québec, 2nd ed., 1989 and Edwin Gentzler, *Contemporary Translation Theories*, London, Routledge, 1993.
8. For a readable account of the evolution of theories of complexity in the English-speaking world see Mitchell Waldrop, *Complexity: The Emerging Science at the Edge of Order and Chaos*, London, Penguin, 1994.

REFERENCES

- BARROW, John (1992): *Theories of Everything*, London, Vintage.
- BRUCKNER, Pascal (1994): *Le vertige de Babel - cosmopolitisme ou mondialisme*, Paris, Arléa.
- GELL-MANN, Murray (1994): *The Jaguar and the Quark: Adventures in the Simple and the Complex*, London, Little & Brown.
- GLEICK, James (1988): *Chaos: Making a New Science*, London, Cardinal.
- HERVEY, Sándor and Jan HIGGINS (1992): *Thinking Translation*, London, Routledge.
- HOMEL, David and Sherry SIMON (Eds.) (1988): *Mapping Literature: The Art and Politics of Translation*, Montréal, Véhicule Press.
- JOVANOVIĆ, Mladen (Ed.) (1991): *Proceedings of the XIth World Congress of FIT*, Belgrade, Prevodilac.
- LAROSE, Robert (1989): *Théories contemporaines de la traduction*, Québec, Presses de l'Université du Québec, 2nd ed.
- OUAKNIN, Marc-Alain (1994): *Bibliothérapie - lire, c'est guérir*, Paris, Seuil.
- REY, Jean-Michel (1991): *La naissance de la poésie*, Paris, Métailié.
- SERRES, Michel (1993): *La légende des anges*, Paris, Flammarion.
- SIBONY, Daniel (1992): *Les trois monothéismes*, Paris, Seuil.