

CONSILIENCE IN TRANSLATION STUDIES

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ABSTRACT

“Consilience” is an old word meaning the unity of knowledge. It has been recently revived by the sociobiologist E.O. Wilson, in order to crystallize and promote the search for links between different scientific fields, in the hope of establishing increasingly general theories. In translation studies, evidence of a trend towards consilience can be found in attempts to define shared ground between different approaches. So far, though, we have seen more fragmentation than convergence. The nature of translation studies as an interdiscipline has made it difficult to relate different theories and research traditions. A general causal model of translation allows us to distinguish at least four theoretical levels: linguistic, cognitive, sociological, and cultural. The problem is how to relate to each other the various claims and frameworks that are proposed at these different levels. We can start by constructing conceptual and metaphorical bridges. These might then enable us to propose testable hypotheses about causality relations across different levels, in the hope of finding very general explanatory principles. The discipline of memetics may offer some useful conceptual tools.

KEY WORDS: Consilience, interdiscipline, causality, bridge concept, paradigm, memetics.

RESUMEN

“Consilience” es un viejo término que significa unidad de conocimiento y que recientemente ha sido recuperado por el sociobiólogo E.O. Wilson para precisar y promover la búsqueda de vínculos entre los diferentes campos científicos y así establecer teorías cada vez más generales. En los estudios de traducción podemos considerar signos de una tendencia hacia “consilience” los intentos de definir espacios comunes entre los diferentes enfoques, aunque hasta ahora haya existido más fragmentación que convergencia. La naturaleza interdisciplinar de los estudios de traducción ha dificultado la relación entre las diferentes teorías y líneas de investigación. Un modelo general y causal de traducción nos permite distinguir al menos cuatro niveles teóricos: lingüístico, cognitivo, sociológico y cultural. El problema radica en cómo relacionar los diferentes marcos y afirmaciones que se proponen a estos niveles. Podemos comenzar creando vínculos conceptuales y metafóricos que nos permitan proponer y comprobar hipótesis sobre las relaciones de causalidad entre los diferentes niveles, con el fin de encontrar explicaciones generales. La disciplina de la memética puede ofrecer algunas herramientas conceptuales muy útiles.

PALABRAS CLAVE: “consilience”, interdisciplina, causalidad, conceptos puente, paradigma, memética.



1. CONSILIENCE

Consilience is an old word. Literally, it means “jumping together.” Its first use in English apparently dates back to the 19th century, but the roots of the concept it represents are older, going back all the way to Ancient Greece. Underlying the word is the notion of the unity of all knowledge. This notion was particularly to the fore during the Enlightenment period in Europe, in the 18th century: A period marked by both humanism and optimism, a belief in the possibility of human and scientific progress. Can the idea still be relevant in these postmodern times?

Edward O. Wilson's book on the subject, entitled *Consilience*, appeared in 1998. Although he first made his scientific reputation as an authority on ants, Wilson is perhaps most famous today as the founder of the science of sociobiology, which uses ideas and hypotheses derived from biology to examine and explain the social behaviour of human beings. In particular, Wilson has sought to apply Darwin's theory of evolution to social and cultural change. He is not responsible for the rise of so-called social darwinism, which is actually based on a misunderstanding of Darwin's ideas. (See e.g. Dennett, *Darwin's*; Segerstråle). Wilson's attempt to sketch out the ways in which different sciences can be linked, not only with each other but also with the humanities, is of amazing scope and vision.

It is significant that Wilson's own field, sociobiology, emerged as an interdiscipline, sitting aside the border between biology and sociology. He actually argues that biology itself is the key discipline linking the natural sciences with the humanities. Consilience is all about interdisciplines (or transdisciplines or pluridisciplines...), about crossing boundaries between traditional fields. As Wilson points out, the most powerful explanations are often those that relate different fields.

What is the relevance of all this for translation studies? It has now become a commonplace to say that translation studies is an interdiscipline. For some, this is a sign of its immaturity, of its insecure position, balanced uneasily between linguistics and literary or cultural studies. From the consilience point of view, however, it is precisely this interdisciplinarity that is the strength of the field. As an interdiscipline, modern translation studies announces itself as a new attempt to cut across boundaries in the search for a deeper understanding of the relations between texts, societies and cultures.

I am thus assuming that consilience is, or would be, a Good Thing, something to be desired and striven for. Moves towards consilience are moves in the right direction, moves that help a discipline to evolve. Could the idea provide a helpful way of thinking about the current state of translation studies? Let us start by considering more closely the notion of an interdiscipline.

2. INTERDISCIPLINARITY

What is a discipline? Disciplines are institutional creations. They do not represent God-given categories of knowledge so much as traditional agreements on how to slice up institutional cakes. They are thus sociological constructs, built out



of shared discourse conventions. Their creation and maintenance have to do with power relationships and the pressure of history. New disciplines emerge not only as knowledge grows and spreads but also as power relations and reputations change within academia. Historically, new disciplines have often emerged at the interface of existing ones, and so at first they inevitably have the nature of interdisciplines. I have just mentioned the example of sociobiology.

These new fields query the very borders they straddle, challenging us to think in different ways. They allow us to pose new kinds of questions, and to seek solutions to complex problems. They thus rejuvenate the overall field of knowledge, preventing it from stagnating. Each new interdiscipline asks us to look at reality from a new perspective. In so doing, interdisciplines remind us of the exploratory nature of much research, especially of research into complex and heterogeneous phenomena (Klein). As McCarty points out, any interdiscipline actually “translates” between neighbouring fields, makes communication and exchange between them possible, and thus adds value. This is an unusually apt metaphor for a field whose very object of study is translation: the interdisciplinary nature of our field is an iconic reflection of its object.

Interdisciplinarity also has its negative sides. One is the fragmentation of a new field. If there is a plurality of methods, theoretical frameworks and conceptions of data within the same field, this may be a sign of life and excitement but it may also show a lack of integration and the lack of a shared goal. This in turn makes it difficult to develop an overall coherent theory. Scholars tend to focus on their own particular corners, and communication between different sections of the field may suffer, as people stress what separates different approaches more than what unites them—at least in the initial stages (cf. Klein 71-73).

A more serious problem is the risk that, in borrowing theoretical concepts and methods from more established disciplines, we actually do no more than transfer labels. Our applications remain superficial, not supported by an adequate understanding of the original context in which these concepts were developed. We may lack appropriate methodological training in fields other than the one where we feel most at home. For instance, a translation scholar might carry out a sociological questionnaire study on client-translator relations without being aware of all the methodological problems that need to be solved as the questionnaire is prepared and tested.

An associated risk can occur when concepts and theories are applied in translation research on the assumption that they have been correctly understood, but where key terms are in fact given a different interpretation. An example of this comes from my own work on the conceptual framework of translation studies. It appears that at one point I have partly misinterpreted what is meant by “essentialism” in philosophy (see Halverson, “Fault”). Terms can also be borrowed into translation research but given different interpretations by different scholars: an example is the concept of norms, coming from sociology and sociolinguistics. Translation scholars still disagree how the concept should be defined and interpreted (see Schäffner). And we still cannot agree how to define equivalence, which comes originally from mathematics and logic—or even if we need the concept at all. One may



also ask to what extent translation scholars have actually made use of the findings of research in other disciplines. On the other hand, we might also ask what use other fields have made of translation studies —interdisciplinary borrowing can go both ways!

With respect to the “limited borrowing” of concepts or tools, Malmkjaer emphasizes the problem of not knowing enough about the background context, assumptions and implications of the borrowed concepts. She cites the example of Quine’s notion of indeterminacy, which has implications concerning theorizability that translation scholars who borrow the concept might not subscribe to. Borrowing a whole theory (such as relevance theory), on the other hand, may run the risk of overlooking what is particular to the borrowing field (translation studies, in this case), *not* covered by the lending one. Furthermore, this kind of total borrowing may encourage a kind of interdisciplinary take-over, abolishing the need for the borrowing field to develop a theory of its own, and then to become also a lender of theories and concepts.

Klein lists some additional problems (88). The borrowed concepts may already be out of date in their original discipline, or may be less reliable than the borrower assumes. The borrower may overlook contradictory evidence and arguments, or rely too much on a single perspective. Borrowers tend to simplify, in fact. On the other hand, borrowers are interpreters, creating links between disciplines. Like McCarty, Klein also compares interdisciplinary borrowers to translators (93). Translation theory thus contributes to the study of interdisciplinarity, at least at the metaphorical level.

One good way to counter these risks seems to be via collaboration, with research done in teams whose members have different backgrounds and different expertise. Unfortunately, most research in translation studies is still done by individuals. Collaboration across different fields would seem to be a good first step towards building consilience.

3. FOUR SPHERES OF RESEARCH

Largely because of its nature as an interdiscipline, in translation studies we have seen rather more fragmentation than consilience, until fairly recently. Perhaps the most striking division has been that between “linguistic” approaches and “culture studies” approaches. This dichotomy arose (in the West) from a reaction against text-bound research methods which traditionally took as central the relation between translations themselves and their source texts, the relation of equivalence. Text-based research is still central, of course, but this is now seen in a much wider context. We also need a wider context if we seek to go beyond description, and try to explain why particular or typical translations look the way they do.

The most obvious kind of wider context was offered by culture studies (see e.g. Bassnett & Lefevere). Translations were seen in relation to issues of cultural identity, gender issues, postcolonialism, and ideology. We have seen the flourishing





of polysystem theory, the manipulation school, descriptive translation studies, and norm theory. Some of the leading scholars of this “cultural turn” tended to present this development as a conflict between “old-fashioned” linguistic approaches and “modern” cultural approaches.

But to present translation studies as thus split into two does us all a disservice. For one thing, it obscures the fact that both these approaches need each other: we need both perspectives —both the micro, textual one and the macro, cultural one— for each sheds light on the other (see e.g. Baker; Pym; Tymoczko). A second reason to criticize this oversimplified picture is the amount of research it actually leaves out. It leaves out the study of translation as a cognitive phenomenon, such as research using think-aloud protocols. (See e.g. the special issue of *Across* 3.1 (2002).) And it also omits mention of research on the sociology of translation —see e.g. Hermans or the special issue of *Actes de la recherche en sciences sociales* 144 (2002).

In fact, rather than classify translation research as falling into two opposing fields, linguistics and culture studies, I propose a conceptual map consisting of four complementary spheres or levels or foci of research. These are: the textual, the cognitive, the sociological and the cultural.

The textual level focuses on texts themselves, as linguistic data in written or oral form; textual research looks at the relations between translations, their source texts, and parallel non-translated texts in the target language. It is thus interested in concepts such as equivalence, naturalness and fluency, and in the possibility of finding universal or very general features of translations as texts of a distinctive kind.

Research on the cognitive dimension is interested in the decision-making processes in the translator’s mind, in the influence of such factors as the translator’s emotions and attitudes, the amount of professional experience, the time available, the routine or non-routine quality of the translation task. The focus is on the cognitive processing, which is inferred from observation.

Sociological research looks at such topics as the translation market, the role played by the publishing industry and other patrons or agents, the social status and roles of translators and the translator’s profession, translating as a social practice, and what Toury (249) has called the translation event. This can be defined as starting with the client’s request for a translation and ending with payment of the fee. Between these two come many different work phases involving interaction with both human and non-human resources (see e.g. Mossop). The sociological focus is thus on people and their observable actions.

On the cultural level, finally, the focus is on ideas (or memes, if you like), on the transfer of cultural capital between different repertoires or polysystems. Central issues are questions of ideology, cultural identity and perception, values, relations between centre and periphery, power, and ethics.

Although these four areas of translation studies can thus be roughly separated, there is of course much research that cannot be placed easily into one box or another, and overlaps are common. As I shall illustrate below, overlaps can in fact be significant, in that they explicitly make links between different spheres.

4. CAUSALITY

One productive way of forging links between these different spheres of research is via the notion of causality. It is only relatively recently that causality has played an explicit role in translation research, although it has of course been present implicitly for much longer.

The models of translation that are used in linguistic, text-based approaches are not explicitly causal. Most of them are static, *comparative* models. On one side we have a source text (or sentence, or item) and on the other a target text, and we study the relations between the two. We look for similarities and differences, and see what tends to correspond to what. We are in fact looking for correlations between two sets of textual data. The same basic kind of model is used in corpus studies comparing translations and parallel texts, in the search for translation universals. (See e.g. the special issue of *Meta*, 43.4 (1998).

Some linguistic models, and most cognitive and sociological models, are *process* models. They conceptualize translation—or rather translating—as a process taking place over time. Examples are the various proposals concerning the typical phases of the translation process (e.g. Sager); the phases of cognitive problem-solving, and the phases of the sociological translation event that I mentioned briefly above. These dynamic models are interested in identifying characteristic points or phases of the temporal process, in identifying sequences, albeit using very different time scales. They might be called *implicitly* causal, for they obviously assume a causal relationship between the process and the final product. International ISO and DIN standards, for instance, specify aspects of the translation process in great detail, on the assumption that if the various phases are carried out correctly the final product will be of acceptable quality. (For a discussion of these standards, see Chesterman & Wagner, chapter 6).

It is only the *causal* models, however, that allow, and indeed require, an explicit linkage between different levels or spheres, and it is these models, therefore, that have most to contribute to the achievement of consilience. Causal models provide an explicit framework for investigating the causes and effects of translations. Causal models usually relate textual features of translations to some features outside the translation. For instance: this translation is like this, it contains these particular features, because of the way this translator worked and the decisions that she took; the translator worked like that because of the client's instructions and the ridiculously short deadline; the client specified these conditions because of the norms governing translation work of this kind in this society at this time, which are themselves determined e.g. by commercial values. Similar causal chains can be set up for the effects that translations themselves cause: first on the cognitive states of readers, then perhaps on the observable behaviour of readers or groups of readers, and then even on readers' perceptions of their cultural identity, on their native language, on the spread of an ideology, whatever. (For more on types of theoretical models, see e.g. Williams & Chesterman, chapter 3).

Let us look briefly at two recent examples of research on causality. Both the papers I shall refer to use a causal model that explicitly incorporates more than one of



my proposed four levels or spheres. First, a paper dealing with the relation between the textual and the cognitive, by Nili Mandelblit, entitled “The Cognitive View of Metaphor and Its Implications for Translation Theory.” Using the analytical framework of cognitive grammar, Mandelblit proposes a “cognitive translation” hypothesis, which is designed to account for the difference in the reaction time needed to process different kinds of conventional metaphorical structures in translation. In some cases, the metaphor in the source language uses the same conceptual domain as the equivalent metaphor in the target language (example: *Time is passing slowly* / *Le temps passe lentement*); this is the “same mapping condition.” In other cases, the conceptual domain of the metaphor changes in the prototypical translation (example: *Elle n’est pas de son temps* / *She is behind the times*); this is the “different mapping condition.” Unsurprisingly, this second type seems to take longer to translate than the first type. Significantly, under the different mapping condition, several of her subjects first offered congruent (same mapping) versions even though they subsequently changed their minds and produced a more normal but differently mapped version. Mandelblit’s claim is that these results indicate that translators (and hence perhaps other people too) store and access such conventional metaphors via the conceptual level, not simply as arbitrary symbols with an attached meaning. So she first finds a correlation between (textual) equivalence type and (cognitive) processing time, and then proposes a cognitive explanation to account for this correlation. The link between the two spheres, the textual and the cognitive, is first correlational and then (perhaps) causal.

My second example is a recent paper by Siobhan Brownlie, entitled “Investigating Explanations of Translation Phenomena.” Brownlie distinguishes four levels of causality, and appeals to them all in her analysis and explanation of various features of her data—English translations, by different translators, of French philosophical texts. The features examined include preferences concerning fluency, cohesions, omissions, and other strategies. Her levels of causality are: *the individual situations* (context of production, translator’s attitudes); *textuality* (stylistic conventions, intertextual relations); *norms of translation*; and *intersecting fields* (academia, publishing, professional translation). Brownlie’s “individual situation” is partly cognitive (attitudes) and partly sociological (the immediate context of production); her “textuality” corresponds to my textual sphere; norms are partly social and partly cultural (see further below); and her “intersecting fields” are part of what I would call the sociological sphere. Brownlie appeals to all four levels, offering exceptionally rich explanations of some of her data.

5. BRIDGE CONCEPTS

Causality is thus a “bridge concept,” in that it enables us to see connections between phenomena at different levels. Indeed, it forces us to see these connections, and thus provides one way of moving towards consilience. Let us take a look now at some other bridge concepts.

A good example is the concept of the *norm*. Norms entered translation studies via Even-Zohar’s work on cultural transfer, but they are also central notions

in sociology. So what sphere are they in, the cultural or the social? As values, intersubjectively agreed and established, they are, I would argue, cultural phenomena. But they are manifested in observable social behaviour, in the ways people behave in queues or when they are translating. As ideas, they exist in the cultural sphere, but their prescriptive force, their causal influence, is seen in social behaviour and in the results of this behaviour. In translation studies, we see evidence of norms in the ways translators work, in how they keep to deadlines, in their general translation strategies and methods, i.e. in the social sphere. But we also see evidence in the textual sphere, in the translations themselves. It is thus significant, with respect to consilience, that norms have become such a central concept in descriptive translation studies over the past few decades.

Another example: between the sociological and the cognitive, we have, for instance, the client's specification, the translation *brief*, the instructions. The specification (presumably) affects the way the translator thinks about a particular task, the way in which decisions are made during the process. Skopos theory has made the task specification a central notion, but much remains to be discovered about the precise nature of the relation between given features of a specification, given features of the cognitive process of translating, and given features of the resulting translation. How do translations of the same source text vary when the specification varies?

Another bridge concept, mediating between the cognitive and the textual, is that of the translation *strategy*. Strategies are problem-solving plans or standard procedures, i.e. cognitive routines, conceptual tools; as such, they are not directly observable. But we can of course observe their manifestations, as textual solutions, as target-text features corresponding to source-text features. Some strategies are general ones, pertaining to the task as a whole: e.g. whether to translate freely or not, what to do with names, whether to use footnotes, whether to foreignize or not; others are specific to particular problems or items. Some scholars study these solutions as "procedures," others as "shifts" or "techniques" (cf. Molina & Hurtado Albir).

So far, I have mentioned three bridge concepts that mediate the causal conditions under which translations are done. But translations themselves also act as causes; as I hinted at above, they have effects in all three non-textual spheres: cognitive, social and cultural. We do not yet have any established terminology here, so perhaps I can suggest some. To refer to the effects of the textual (i.e. translations themselves) on the cognitive (i.e. the mental and emotional reactions of readers), we might use the term "reactions." To refer to the effects of translations on individual or group behaviour, i.e. on the social level, we might speak of "responses." Responses would include critical ones, such as writing a translation review or giving feedback as an editor. So a reaction is what a reader thinks or feels, and a response is what a reader actually does. To describe the effects of translations at the cultural level, we might then speak of "repercussions." Examples of repercussions might be the canonization of a literary work, changes in the evolution of the target language, changes in norms, changes in the perception of cultural stereotypes. Thus defined, reactions, responses and repercussions are also bridge concepts, linking the textual to other spheres.



On one hand, then, we seem to need conceptual borders, because without them, in other words without categories, we cannot think at all. But at the same time we can try to overcome or at least challenge these categorical borders, by exploiting notions that set up alternative categories. These are what I have called bridge concepts. (See Figure 1).

FIGURE 1. TRANSLATION RESEARCH SPHERES AND BRIDGE CONCEPTS.				
		TEXTUAL		
strategies	□		□	reactions
		COGNITIVE		
brief	□		□	responses
		SOCIOLOGICAL		
norms	□		□	repercussions
		CULTURAL		

6. SHARED PHILOSOPHICAL GROUND?

So far, I have been sketching a general map of the *subject-matter* of our interdiscipline. With a research area as broad as this, to what extent can we say that we have a shared philosophical approach, a shared position with respect to basic epistemological and methodological questions? To the extent that we do in fact share such initial assumptions, we will have some kind of a philosophical foundation for constructing consilience.

This topic has been the subject of a continuing discussion in the journal *Target* in the issues following Chesterman & Arrojo. That Forum paper was an attempt to define a set of shared assumptions that would, we thought, be shared both by scholars working in a hermeneutic tradition and by those working in an empirical tradition. The former approach takes many of its concepts and methods from literary analysis, culture studies, and postmodernism. The latter has been influenced more by the methods of the human sciences such as sociology and psychology. The debate has concerned such issues as the scope and aims of translation studies, the nature of meaning, the impossibility of total objectivity, and the ultimate motivations of scholars themselves.

Responses by different scholars have shown various degrees of agreement and disagreement with the set of “shared theses” proposed by Rosemary Arrojo and myself. We are clearly still far from a generally accepted “research paradigm”—partly because there are different views of what kind of discipline translation studies actually is: is it an applied field like engineering, a hermeneutic field like literary theory, or an empirical one like sociology? However, there does seem to be fairly widespread agreement on the main kinds of research problems the field is trying to solve, which is a start. These problems can be grouped as follows.

Problems of *definition*. We find many shared assumptions about the inevitable theory-boundness of terms, and about cultural relativity. Apart from work on the conceptual analysis of central terms such as translation itself, equivalence, the

translation unit and translation strategies, there is also relevant research on the discourse on translation (including “folk definitions” of translation), on metaphors of translation, and on whether translation itself can best be described as a prototype concept or perhaps as a cluster concept. (See e.g. Halverson, *Concepts*.) Conceptual analysis has traditionally played a major role in translation research. However, definitions are not ends in themselves; they are only means, tools which enable us to formulate claims and arguments, or to set up useful classifications on the basis of which we can make interesting generalizations. Endlessly refining the precision of definitions is, I think, less valuable than simply agreeing on *working* definitions and basic terminology, and then using them to formulate interesting hypotheses that can be tested.

Problems of *description*. I refer here not only to case studies, but also to research which tests hypotheses about more general features of translations, including so-called translation universals. These features would then serve to distinguish translations from other kinds of texts: source texts and/or non-translated parallel texts in the target language. Other potential descriptive universals have to do with the translation *process*: both at the cognitive and the sociological levels.

Problems of *explanation*. I already referred above to the increasing interest in the causality of translation. We can seek explanations both for features of given translations and for the apparent effects of translations. If we study effects, we can also include evaluative responses by critics, teachers and other readers. In this way, we can incorporate research on people’s perceptions of translation quality. Furthermore, as I suggested earlier, we can explore the wider sociocultural repercussions of translations, their effects on cultural and intercultural history.

To these we can then add problems of *application*. How best should we apply what we think we know —about how best to define, describe and explain translation— to the practical problems of translator training, developing computer aids, improving translation quality, educating clients, or promoting viable language policies in multilingual communities?

So although we are still far from a shared philosophical paradigm, we can perhaps see the beginnings of the basis for one.

7. MEMETICS

I now move to my final proposal for consilience construction. I have so far mentioned the importance of collaborative interdisciplinary projects; the value of bridge concepts such as causality, norms and strategies; and the necessity of establishing some common philosophical and methodological ground. My final proposal concerns the contextualization of translation studies itself as part of a wider vision. The field has been “embedded” in many different ways: some see translation studies as part of communication studies or pragmatics, other as part of culture studies, others still as part of semiotics. For me, the potentially most productive context is the relatively new field of memetics. (This section borrows from Chesterman, *Memes*; “Memetics”).

Memetics is the study of memes. What is a meme? The Oxford English Dictionary defines it like this:

Meme: an element of a culture that may be considered to be passed on by nongenetic means, esp. imitation.

The term was proposed and first used by Richard Dawkins, in his book *The Selfish Gene* (1976). This was a popular book about genetics, about how the behaviour of organisms is influenced by the way genes seek to promote their own survival. Towards the end of the book, Dawkins introduced the notion of a meme as the cultural equivalent of the gene. Actually the notion itself has an older pedigree, although the term is new. See Laland & Brown for the general background to memetics. The term has since been taken up by many scholars. The philosopher Daniel Dennett uses it in his attempts to explain consciousness (*Consciousness*), and in his defence of modern Darwinism (*Darwin's*). Edward O. Wilson uses it in his theory of gene-culture coevolution, in his book on consilience that I mentioned earlier. One particularly interesting aspect of Wilson's application of the meme concept is the way he links it to neurology. A meme, says Wilson, is "a node of semantic memory [as opposed to episodic memory] and its correlates in brain activity." That is, a meme is both an "idea" and the corresponding set of "hierarchically arranged components of semantic memory, encoded by discrete neural circuits" (Wilson 149). (See also Blackmore, and for more varied views, Auger).

Memes were explicitly brought into Translation Studies by Chesterman ("Teaching"; *Memes*), and independently by Vermeer.

Memes, then, are everything you have learned by imitating other people—habits, jokes, ideas, songs... Memes spread like genes, they replicate, usually with mutation. Some memes spread, and thus survive, better than others. Memes survive well, in the "meme-pool," if they are easily memorable, useful, sexy or emotive. Some memes tend to co-occur with others, in groups: these groups are called mememes or memeplexes. Examples are languages, religions, ideologies, scientific theories. Blackmore even suggests that the very notion of a self may well be no more than a memeplex.

From a meme's-eye view, human beings are just convenient and rather efficient machines for spreading memes, as memes engage in their Darwinian struggle for space and survival. Memes spread as people talk to each other, as they read books or attend a lecture. Memes also spread via translations, of course. In fact, this is really what the whole translation business is about: spreading memes from one place to another, making sure that they get safely across language borders. So translation studies is a way of studying memes and their transmission under particular circumstances. It is, in fact, a branch of memetics.

You might think that all this does no more than propose yet another new metaphor for translation: i.e. that we could profitably see translations *as* survival machines for memes. This in itself might indeed be useful: any discipline, even the so-called hard sciences, needs metaphors, for metaphors are conceptual tools of understanding. A good new metaphor may allow you not only to structure what





you know in a new and productive way; it may also highlight new aspects and new problems that had not occurred to you before, and hence new hypotheses. Different metaphors highlight different assumptions. For instance, if you see translation as carrying a meaning across a boundary, you seem to be assuming that the thing being carried remains unaltered. But if you see translation as the propagation of memes, you assume that there will probably be changes along the way, mutations, some of which will perhaps turn out to be more productive than others.

However, memetics may eventually be useful to us in more than a merely metaphorical sense. I noted above that some scientists are investigating memes at a very concrete level, as neural patterns. As cognitive science develops, we may learn more about the ways in which brains represent and communicate information. Memetics may one day show us something about what happens in the translator's mind.

Finally, there is still another reason to invest in a memetic approach. *Genes* are driven by the urge to propagate and therefore survive; they are the key to biological evolution. *Memes* are the key to sociocultural evolution. The survival of our species depends significantly on the kinds of memes that spread through the memepool. So-called parasitic memes are, in the long run, fatal for their carriers (i.e. for human beings). They are Bad Ideas that end up killing their hosts. Memes that are conducive to our survival are known as mutualist memes: they are good for their hosts, and thus also for their own survival chances. (Invent your own examples!) Translators are not the only propagators of memes, of course; but they are one important group of these propagators. At this point, then, we meet the utopian visions of those translation scholars who are motivated by the dream of a harmonious, multicultural world.

By thus embedding translation studies explicitly in memetics, we highlight its relevance not only to cognitive science, but also to cultural and human evolution. We offer a conceptual bridge not only with cognitive and culture studies but also with the social and biological sciences.

Which brings us back to sociobiology and our theme of consilience. Other fields too are engaged in the consilience project. Contemporary physics is apparently grappling with the problem of how to connect the four known physical forces into a single theory. Some have been linked, but not yet all. Looking for potential links, not only between the different spheres of translation research but also between translation studies and other fields, all contributes to the construction of consilience.

At one point in his book *Consilience*, Wilson discusses the role played by neural cells in the brain. They are all interconnected, in an incredibly complex network, and constantly zapping messages back and forth. This dynamic network, suggests Wilson, seems to be our sense of consciousness, our sense of a "self" — a hypothesis also explored by Daniel Dennett (1991) in considerable detail. Wilson here (121) cites another biologist, S.J. Singer, who coined the phrase *I link, therefore I am*. This is a wonderful justification for the consilience project (cited also in Chesterman & Wagner 37).

It is also a wonderful motto for translators!

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