



Routledge Advances in Translation and Interpreting Studies

A (BIO)SEMIOTIC THEORY OF TRANSLATION

THE EMERGENCE OF SOCIAL-CULTURAL REALITY

Kobus Marais



A (Bio)Semiotic Theory of Translation

This volume outlines a theory of translation, set within the framework of Peircean semiotics, which challenges the linguistic bias in translation studies by proposing a semiotic theory that accounts for all instances of translation, not only interlinguistic translation. In particular, the volume explores cases of translation which does not include language at all. The book begins by examining different conceptualizations of translation to highlight how linguistic bias in translation studies and semiotics has informed these fields and their development. The volume then outlines a complexity theory of translation based on semiotics which incorporates process philosophy, semiotics, and translation theory. It posits that translation is the complex systemic process underlying semiosis, the result of which produces semiotic forms. The book concludes by looking at the implications of this conceptualization of translation on social-cultural emergence theory through an interdisciplinary lens, integrating perspectives from semiotics, social semiotics, and development studies. Paving the way for scholars to analyze translational aspects of all semiotic phenomena, this volume is essential reading for graduate students and researchers in translation studies, semiotics, multimodal studies, cultural studies, and development studies.

Kobus Marais is interested in understanding the emergence of society and culture from a material substrate. He specializes in semiotics with a focus on complexity thinking and the relationship between translation and development. His publications include *Translation Theory and Development Studies: A Complexity Theory Approach* and, co-edited with Ilse Feinauer, *Translation Studies beyond the Postcolony*.

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I dedicate this book to Sanita, my life partner, whose grounded humanity has enriched me beyond reason.



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Contents

<i>Acknowledgments</i>	viii
1 Translation Problematized	1
2 Conceptualizing Translation in Translation Studies	11
3 Conceptualizing Translation in Semiotics	47
4 Translation: The Process Underlying Semiosis	83
5 Conceptualizing a Semiotic Theory of Translation	120
6 Translating Socio-cultural Emergence	158
7 Musing About the Future of Reality in the Humanities	182
<i>References</i>	187
<i>Index</i>	203

Acknowledgments

Writing a book is generally regarded as an isolated, if not lonely, endeavor. While this is true for the physical writing phase, the writing depends on thinking, which depends on talking, which assumes other people, which makes writing a deeply social activity. And while good scholarship is supposed to be original, all scholars are embedded in networks of colleagues or friends or even just the scholars they meet fleetingly at conferences or the ones whose books they read.

I honor all of these. The ones whose books I read, I recognize in the text by referencing them. However, much of my thought was shaped by discussion, interaction, argumentation (sometimes intense) by so many colleagues that I cannot, at this point, tell exactly where their contribution ends and my own begins. I am thus indebted to many colleagues. I try here to thank them, but I might even have forgotten names and influences, so if your name is not here and you feel that you have made a significant contribution to my thinking, you are welcome to let me know that I did you an injustice.

The five postdocs that I mention in the text allowed themselves to be harassed in debates and discussions to sharpen my insight into problems of translation studies. I acknowledge Sergey Tyulenev, Caroline Mangerel, David Orrego Carmona, Duygu Tekgul, and Carmen Delgado Luchner as colleagues, brilliant scholars in their own right, and unselfish contributors to the larger scholarly project—including mine.

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Even closer, at home, I had a life partner, children, and family that put up with my quirks and supported me.

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1 Translation Problematized

Over the past eight years, I have had the privilege to host in our department five brilliant postdoctoral researchers from all over the globe. They have all, in various ways, been instrumental in shaping my thinking on the nature of translation by confronting me with a variety of data about translator and translation practice, and conflicting ideas about translation and translation studies. This introductory narrative serves both as acknowledgment of their scholarship, friendship, and formative influence on my thinking, and as evidence of the wide variety of translation processes and phenomena that occurs across the world.

Sergey Tyulenev asked hard questions about translation being only about language—or even about meaning—using his in-depth knowledge of, among other fields, Luhmann’s systems sociology to explore the range of meanings of the notion of ‘inter,’ including the possibility that ‘inter’ is a purely logical category applicable to all of reality.

*In our discussions, Caroline Mangerel presented fascinating data concerning semiotic process. One of her most famous examples involves translations of *The Count of Monte Christo*. She illustrates how this novel has been translated into different languages, and also into movies, cartoons, video games, and other media. She goes on to show a Japanese series with the title *The Count of Monte Christo* in which nothing but the title bears any relationship to the original novel. On basis of this data, she asks questions about the boundaries of translation. Is this Japanese series a translation of *The Count of Monte Christo*? If it is, is it a different type of translation, theoretically speaking, then interlingual translations? What are the minimum requirements for anything to be called a translation, because Japanese viewers would not necessarily regard these series as translations in the sense that Toury’s conceptualization of translation (as something regarded as a translation by the target culture) requires.*

David Orrego Carmona told stories about colleagues who did not want to admit that his research on fan-subbing falls under translation studies. They argue that translation studies should study only

2 Translation Problematized

professional translation. David's data raise the following question: If modern communication and entertainment are increasingly multimedial, or multimodal, what is the relevance of definitions of translation that are limited to interlingual translation?

If DJ Afro, in Nairobi, Kenya, deletes the soundtracks on DVDs, and replaces it with that of soap operas from Hollywood or Bollywood, and adds his own text and even political commentary, is he a translator? How do you deal with being a refugee and being selected to act as an interpreter for the authorities, thereby holding in your hands the future of fellow refugees, who are your neighbors when you return to your tent at night? Are you translating or interpreting when you, as an ad hoc interpreter in a refugee camp, read questions from a list, but not in the language in which they are written? Carmen Delgado brought these and other questions to our discussions in the Department.

In a setting of religious interpreting in Turkey, Duygu Tekgul had to consider whether you can call someone a professional translator if this person interprets in a church, views her role as professional, and tries to submit to all professional requirements, but does not want to be paid (because her aim is rendering a service), has had no training and has no contract. Is the question about professionalism even relevant in the context? Duygu also confronted me with data about blogs aimed at popularizing scientific findings, and about the role translation plays in crossing both the boundary between expert and lay person (intra-lingual translation), and distributing the information across linguistic boundaries (interlingual translation) through a variety of modes (intersemiotic translation).

To these kinds of questions, I can add those that my news-translation colleague faces on a daily basis. Marlie van Rooyen deals with the reality that it is impossible to determine how many source texts there were for a particular news bulletin. It is equally impossible to determine how many target texts (spoken news, written news, twitter, Facebook, Instagram, etc.) a news story, as source text, causes. Another colleague, Monnapula Molefe, studies all kinds of versions of public-service interpreting and translation, and found that people in the Global South find ways of communicating, despite a lack of political will to serve them in this regard. What about interpreting between animals and humans, is the question my interpreting colleague, Xany Jansen van Vuuren, is investigating in cases of ad-hoc interpreting during animal-welfare outreaches.

From all corners of the world, in this case, Russia, Canada, Columbia, Switzerland, Turkey, and South Africa, I have, thus, been confronted with data and ideas about translation processes and phenomena that question a conceptualization of translation that is limited to language, the formal economy, professional circles, or high literature (Marais & Feinauer, 2017).

Furthermore, in October 2016, I attended a conference called ‘Transmediations!: Communication Across Media Borders’ at the University of Linnaeus in Sweden (Transmediations Conference, 2016). On the last day of the conference, the well-known social semiotician, Gunther Kress, in a plenary address, listed some terminology referring to ‘trans’ phenomena that had been circulating at the conference: transcription, transformation, transduction, translation, transposition, transmission, transfer, transmediation, and transcultural. During the conference, I had also picked up, from the program and in presentations, terms such as transmodality, transfiction, transliteracy, transmedia navigation, transcreation, adaptation, ekphrasis, intersemiotic translation, semiotranslation, interart, voice description, cinematization, and gamification, representation, visual transmediation, metafilmic, kinephrastic, transideology, interfigurality, and shapeshifting, which were used to refer to roughly similar phenomena or processes. One can add to this the notions of intermediality, intermodality, multimodality, and multimodality, as well as some very specific terminology, such as Elleström’s notion of media transformation, Ryan’s transmedia storytelling, Vitali-Rosati’s mediating conjuncture, Monjour’s anamorphosis, and Queiroz’s metaphor of cyborg (see the conference program at Transmediations Conference, 2016).

Elsewhere, I have also heard the terms intertextual, plurimedial, intermedial transposition, transfixing, transfiguration, resemiotization, transsensorial perception, inter-exchangeability, hypertextuality, and trans-editing strategy. Then there are the well-known ones, addition, deletion, retopicalization, restructuring, abridgment, and synthesis. Milton (2010), in turn, refers to appropriation, re-contextualization, tradaptation, spinoff, reduction, simplification, condensation, abridgment, special version, reworking, offshoot, transformation, remediation and re-vision, and Pym (1998, p. 60) coined the term ‘weakly marked translation’ for texts that are not marked as translation, but are built on previous semiotic traditions. Further additions include the notions of voice-over, audio-description, subtitling, and dubbing—all well-known in translation studies—as well as framing, rewriting, editing, and bulletin writing, from news translation and journalism. In language education, the notion of translanguaging has become popular (Makalela, 2015a, 2015b), and current culture experiences the notion of convergence in the simultaneous release of movies with games, toys, apps, etc., or the multimedia distribution of a particular news story (Jenkins, 2006).

In the Global South, one is, furthermore, confronted by refugees interpreting for relief organizations, by children reading medical prescriptions for grandparents who cannot read, and by community members who tell each other in a local language what a visiting politician said during a speech in English (Marais, 2014, pp. 146–159; Molefe & Marais, 2013). These are all phenomena for which we do not have names—yet. Ralarala (2016) coined the term ‘transpreters’ for the translator-interpreter in the police office, who,

4 *Translation Problematized*

both verbally and in written language, interacts with complainants when taking down evidence. In Alamin Mazrui's (2016, p. 157) book on translation in East Africa, he refers to the famous African scholar Ali Mazrui's use of the terms transvaluation and transverbalization in the context of political and social development in Africa. In another context, he also speaks about transtextualization, and Aroch Fugelli (2008, p. 104) uses the term trans-contextualization, in referring to the use of external referents without which a text would not be interpretable in a new context.

The practices, ideas, and terms I list earlier raise a number of pertinent questions. The first of these is whether all these practices or terms have something in common, or whether they refer to unique events or practices. Concomitantly, one can ask whether understanding the commonalities between them, if any, would add any value to understanding and theorizing these phenomena. Second, the practices and terms raise the question whether current conceptualizations of translation in translation studies and semiotics are broad enough to cover all of these examples. Should one argue that the conceptualization of translation needs to be broadened, it remains to argue how one would go about it. A third question relates to the relationship between these events or practices and the society or culture in which they emerge and which they cause to emerge. How do they constrain and how are they constrained by the social-cultural context in which they take place? These three questions drive the investigations in this book and my effort to suggest a comprehensive theory of translation that explains not only translational phenomena of all kinds, but also the pragmatic, social embeddedness, and creative power of translation.

First, if all of these 'inter' and 'trans' process-phenomena (and others) have anything in common, what could that be? In this book, I present the argument that all the terms noted earlier have in common, from the perspective of Peircean semiotics, that they are translation processes or phenomena. All these terms refer to the semiotic process-phenomena called 'translation' by Peirce, namely relating one system of signs to another system of signs, thus, creating interpretants. Linking interpretants to interpretants is the process through which all meaning is constructed, irrespective of the medium in which it is done and the socio-cultural constraints under which it takes place. Contrary to conventional wisdom in translation studies, which conceptualizes translation inductively, I argue that Peirce gave us a way to complement inductive conceptualizations of translation with a deductive conceptualization: Translation entails negentropic semiotic work to create meaning by means of imposing constraints on the semiotic process. I work out the details of this conceptualization in Chapters 4–6. The implication of this approach is that I am not looking for process-phenomena that are 'translations,' and I am not looking for people who call themselves translators or are called 'translators' by others. Rather, the definition allows me to look for the translational aspect of any semiotic process. This does not mean that everything is translation, far from it. It might, however, mean that

processes or phenomena that are not called translations—or that are not immediately recognized as interlingual translations—might have translational aspects to them. It might also mean that phenomena that are not recognized by a society or culture as a translation might entail translational aspects. Thus, wherever there is semiosis, there will be some kind of translational aspect to it. My approach is advantageous in that it does not submit scholarly work to the limitations of popular perception, namely that a scholar can only study something as a translation if a particular audience regards it as such. With my approach, scholars of translation can study all semiotic process, comparing translations ranging from DNA processes through animal interaction and human politics and power, to dreams and other flights of fantasy.

It is noticeable from the plethora of terms earlier that the prefixes ‘inter’ and ‘trans’ dominate, reflecting process thinking. Also noticeable is a growing focus on linking ‘inter’ and ‘trans’ to a particular material medium or cultural mode, e.g. transfiction, interart, which is caused, among others, by technological developments and the ability to reconstruct meaning in a variety of material forms. As indicated, the examples in the previous paragraphs reflect the variety of media and modalities, the development of technology with its concomitant affordances and the differences in social and cultural organization that play a role in shaping the different forms that semiotic processes take. Reciprocally, these processes also shape the media or modalities, technology, and social-cultural¹ organization in which they operate. While process is, thus, at the center of my interest in this book, process itself does not remain formless. This means that form and structure is equally—paradoxically and complexly—central in this book. I take process and form to stand in a complex relationship, where process is primary, both historically and logically, and where form emerges out of processes as they move forward in time. In a reversal of the conventional figure and background, which take form to be primary and processes of change to be secondary, I am interested in the emergence of form from process. As far as translation is concerned, I am interested in the emergence of forms of meaning from processes of meaning (processes to which Merrell, 2000a, p. 48) generally refers to as making and taking meaning, i.e. producing and interpreting signs). I have this interest, because, as much as I argue for the primacy of process (Whitehead, 1985), I understand that processes have the habit (in the Peircean sense, to be explained later) of taking form. In particular, I am trying to investigate the relationship between process and form in semiosis, and I mostly use the term process-phenomenon to make it clear that I refer to both.

This book is, therefore, not about things. It is about processes, in particular, the processes of creating relationships between things—including ideas. It is about the way processes become things. It is about change, but not about how things change. It is about how processes change to become things—and are changed to become other things. While much thinking in

6 *Translation Problematized*

the humanities assumes things and is trying to explain change and process, I am assuming change and process with the aim of trying to explain how these processes become stable enough to be recognized as things. Process, left to its own devices, results in chaos. What we need to understand is how to constrain process to create form.

Though process, translation takes a plethora of forms, depending on medium, technology, culture, time, and space, among others. This means that one needs to provide subcategories of translation in order to operationalize the theoretical Peircean construct for the sake of doing empirical research. Differences in the materiality of the translation process, caused by new developments in technology and various social constraints, are highly relevant to detailed empirical analyses, though, as I shall argue in Chapter 5, these are not the only types of translation. Thus, if one focuses on the commonalities among semiotic processes only, the theory is too vague to be of empirical-analytical use—just like the inductive focus causes translation studies to be limited in its theoretical conceptualization. Also, if one focuses on the differences among semiotic processes, as is currently the trend, the theory becomes solipsistically closed in on itself, claiming that the communication in a particular medium is so unique that it has no links with other forms of semiotic process. This causes a lack of comparative awareness between different semiotic systems and different translations. I explore Peircean phenomenology and semiotics to see if it renders any useful notions with which to categorize the diversity of translational phenomena and processes. To this task of conceptualizing categories of translation, I turn in Chapter 5.

One point of criticism that can be leveled against my project is that it stretches the concept of translation so thin that it undermines the discipline. First, I am not interested in defending or promoting a discipline. Rather, I am interested in understanding a process-phenomenon in reality. Second, I am not convinced by the argument that a broader conceptualization is harmful to any field of study. Would that be so, historians would have come up with a very restricted notion of what history entails, or mathematicians or physicists would have come up with a similarly restricted conceptualization of mathematics or physics. Third, from a complexity perspective, I choose not to favor either universalism or particularism. Rather, the way in which we understand anything entails a complex interplay of more general and more particular conceptualization and data.

Second, why is current translation studies not able to, or why does it choose not to study all of the phenomena in which the prefix ‘trans’ or ‘inter,’ to which I referred earlier, occurs (Robinson, 2016, p. 11)? It is frustrating (for me) to see how translation studies, which could be a field of study concerned with all of these process-phenomena, have limited itself to the notion of interlinguistic translation. I spend some time in the book explaining the origins and the nature of this linguistic bias, and point out that it has become irrelevant, if not downright obstructive to do so in a context of technological advances, basing my argument on, among others,

Peirce. He argues that '[i]t might be supposed that although such a study [of speculative semeiotic] cannot draw any principles from the study of languages, that linguistics might still afford valuable suggestions' (MS 693, pp. 191–192). I also spend some time explaining the bias as originating in a cultural context where (written) language is seen as the pinnacle of civilization, thereby favoring one set of historical-social constraints at the expense of many others (Bandia, 2008; Finnegan, 2007; Jousse, 2000; Ong, 1967, 1995). The Peircean conceptualization I present makes it possible to explain the 'translation-ness,' or the translationality of all of the 'inter' and 'trans' process-phenomena, and even process-phenomena indicated by other terms, thereby expanding the comparative power of translation studies. This effort, indeed, reminds of the Russian Formalists at the beginning of the 20th century, trying to come to terms with the 'literariness' of literary texts. My approach will be neither formalist nor structuralist, but, rather, process-oriented and, thus, emergent, but I do think that translation studies would, like literary studies, benefit from moving toward an interest in translationality, rather than translations or translators—although the former does not exclude the latter.

The question is then whether, in its current form, translation studies is able to account for the proliferation of translational actions made possible by technological development? The answer has to be no. Translation studies that focus on interlingual translation are not able to account for new developments in technology—developments that are not only recasting the notion of text, but also that of communication, meaning and, perhaps, even language (Danesi, 2016). Kress (e.g. 2010) has noted for a while now that very little, if any, communication takes place within one, what he calls, modality only. I try to show how irrelevant translation studies is becoming, because its bias toward written language is excluding it (translation studies) from the debate about multimodality/multimediality. Communication and meaning-making and meaning-taking usually takes place with various modalities or mediums at the same time. Even the written text is influenced by the multimodal materiality of the pages, the font type and color, the size of the book and the cover thereof, among others (Sonzogni, 2011).

Third, if my earlier argument, namely that the empirical evidence calls for a wider conceptualization of translation, holds, the question is, how can the current conceptualization be expanded? Translation studies has gone through a number of turns that had the aim of expanding the conceptualization of translation. I shall argue in Chapter 2 that, on the one hand, many of these broadening efforts did not broaden the conceptualization of translation itself, but just broadened the context in which interlingual translation is studied. On the other hand, I do not think that the turns, jointly, have provided us with the broadest possible conceptualization of translation. Thus, I suggest that we revisit Jakobson's (2004) founding definition of translation, by going back to the work of Charles S. Peirce, on whom Jakobson based his conceptualization. I shall demonstrate that Jakobson

8 *Translation Problematized*

provided a skewed interpretation of Peirce and that, based on Peirce, we have a complex and broad conceptualization of translation that can lead to more fruitful categories and empirical research. This conceptualization does not exclude or denounce previous turns in translation studies but, rather, incorporates and explains them in a broadened field of study. A semiotic theory of translation allows me the possibilities of exploring the implications of wide-ranging conceptualizations for translation studies, such as insights from biosemiotics, issues of idealism and pragmatism and, as it relates to the last of the four questions driving the book, the role of meaning-making in the emergence of social-cultural phenomena.

This brings me to the last question and point of interest in this book. In a special edition of the journal *Religion, Brain and Behaviour*, in 2015, Cas-sell (2015, p. 52) suggests the following:

At the very least, emergentists need to bring semiotics and emergence into conversation. . . . Perhaps one of the more interesting ways to apply Deacon's work is in its capacity to make sense of human social phenomena.

The question is, therefore, as follows: Is translation studies able to account for the wide array of translational practices that are shaped by differing social affordances and constraints and that shape the emergence of the social and cultural domains? In European and North American contexts, where translation studies originated, scholars are exposed to a particular set of social practices, to particular values related to these social practices and, thus, to a particular scholarly program regarding those practices (Tymoczko, 2006, 2010b). A simple example is that some scholars from these contexts would not recognize non-professional translation as translation (see Tyulenev, 2015 for a discussion on professionalization). The dominance of this scholarly program means that many translation studies scholars have missed out and are missing out on studying the unique features of translational phenomena in their contexts, because they are following the program set by European translation studies—and the interlingual definition set by European translation studies—and uncritically taken over by virtually everybody else. Translation studies in the rest of the world has become, to use a colloquialism, 'Europe Lite,' a copy of European scholarship, yet, not as genuine. A large aim of this book is, thus, to provide a theoretical framework that questions and provides alternatives to the European scholarly program for translation studies. Of course, the theoretical tools originated in the West/Europe/Global North—it would be foolish to denounce knowledge just because of its origins and to refuse to recognize it as part of the heritage of humanity. However, I am trying to reconceptualize these conceptual tools to such an extent that they will allow me, and fellow scholars in the Global South, to see the data in other contexts—which are also part of humanity and that are now starting to voice their perspectives and starting to contribute new perspectives to the heritage of humanity.

I am, however, not only interested in how cultures and societies shape translation process-phenomena, but also in how translation process-phenomena shape cultures and societies. I assume some kind of complex circularity in this regard, as suggested by Peirce and Deacon. In other words, I am interested in the way that societies and cultures emerge through semiotic process, i.e. translation. In order to deal with this question, I delve into the relationship between semiotics and sociology, preparing the ground for subsequent work on translation and development.

This book is conceptual, falling under the theoretical category of pure translation studies as conceptualized by Holmes (2004). In the arguments I am trying to make, I use copious examples, but I do not present an original set of data. Because I am convinced that translation studies scholars do not think enough (philosophically) about their field of study, this book aims to stimulate further theoretical debate in this regard. While I am aware of Pym's (2016) arguments for empirical work in translation studies, and while I basically support it (though not his rhetoric), I am also convinced that hermeneutics and critical theory have made a convincing argument that empirical observation does not take place against a blank slate. Conceptualizing a theoretical framework with reference to data that is on the table should, thus, be a legitimate endeavor. It should assist translation studies scholars to deepen their understanding of what they are dealing with when they study translation process-phenomena.

Well aware of the current skepticism about 'grand theory,' I cannot help but wonder whether this skepticism is, in itself, not a grand theory. Once we have constructed numerous little 'un-grand theories,' shall we not, again, be faced with questions about how they relate to one another, forcing us to come up with another grand theory? Thus, I cling to the conviction that scholarly work entails a complex weave of universal and particular, and based on the judgment that current scholarly work in translation studies is focused on the latter (the particular), I argue for a nuanced consideration of both the universal and the particular.

Writing this book presented me with a number of challenges regarding structure, flow, and rhetoric. Some readers might be convinced of the need to expand translation studies to a semiotic base, while others might want to hear an argument for it. Some readers might be well versed in Peircean semiotics, while others might not have heard about Peirce. Some readers might have thought a great deal about emergence and complexity, and how these relate to translation studies while others might find it a daunting task or just unnecessary. Thus, I tried to write it in such a way that each chapter can be read independently. Readers convinced of the need of a semiotic theory of translation, can start reading at Chapter 4, or even Chapter 5, if they are well versed in Peircean semiotics. Readers who would just like to understand the implications of a broader conceptualization of translation, in particular one within the ambit of complexity thinking, could read only Chapters 5 and 6. Regarding Peircean semiotics, I also find myself in a difficult situation. Peirce is a difficult thinker and is not all that well-known.

Chapter 4, thus, represents a balancing act between maintaining the interest of a novice to Peircean thinking, and not boring the old hands. I am not wholly convinced that I found the balance, but this is the best that I can do now.

With the aforementioned in mind, the book consists of the following chapters. In Chapter 2, I review the conceptualization of translation studies since the Second World War. I point out some of the biases and the thought processes that shaped these conceptualizations, and argue that translation studies have been held captive by an unhealthy bias toward language, in general, and (usually high) literature, in particular. In Chapter 3, I review conceptualizations of translation in semiotics, and argue that these have not been influential in translation studies, because of the linguistic bias, but also because they have been subject to some of the same limitations as translation studies, e.g. the dominance of the source, the substantializing of the semiotic process, and a fascination with equivalence. In Chapter 4, I put forward a Peircean conceptualization of semiosis process, namely translation. In it, I work out the implications of Peirce's theory of translation. I also investigate the implications that biosemiotic theory hold for translation studies. In Chapter 5, I present my own contours for a comprehensive theory of translation. In particular, I tackle the difficult issue of categories of translation if one expands the notion of translation along Peircean lines. In Chapter 6, I put forward a social-semiotic theory that attempts to explain the emergence of social reality as a product of the translation process—this is in preparation for a follow-up book, hopefully, on translation and development. In Chapter 7, I muse on the implications of realism for the humanities.

Note

1. It is obviously possible to distinguish between society and culture, but, for the sake of my argument, I do not need the distinction, arguing that both social and cultural relations, phenomena, and structures have a semiotic component. I, thus, use the term social-cultural to refer to this broad conceptualization.

2 Conceptualizing Translation in Translation Studies

1 Introduction

Space and time constrain the way scholars view their fields of study. Regarding this truism, translation studies is no exception. In this chapter, I review some of the literature on the conceptualization of translation from the past 70-odd years. My main argument is that, due to historical and spatial constraints, i.e. the dominance of certain spaces, such as Europe and the particular historical and intellectual epoch since 1945, translation studies has been conceptualized almost exclusively in terms of language, (high) literature and culture, basing itself mostly on Jakobson's (2004) notion of interlingual translation. In my view, Jakobson's conceptualization contains the core of a semiotic theory of translation, but due to the constraints of space and time—and the constraint of Jakobson's particular interpretation of Peirce—this semiotic core has largely remained locked up to this day. Neither cultural, sociological, and power turns, nor the limited influences from semiotics have been able to free translation studies from the bias in Jakobson's thinking. As the review will show, some attempts have indeed been made to think about the relationship between semiotics and translation, particularly in the last decade, but translation-studies scholars have not yet explored the full implications of semiotics for translation. The implications of this bias are legion, but one of the most important is that translation studies has not been able to conceptualize the translation of all kinds of meaning—only the translation of lingual meaning.

A secondary argument relates to the idealist philosophy underlying most of linguistic thinking in the 20th century. Translation studies, because of its linguistic bias, has been biased toward idealism, or 'the way of ideas,' as Deely (2001, p. 1011) calls it. This means that reality itself—and thus an empirical disposition (Pym, 2016)—has been excluded, to a greater or lesser extent, from scholarly debates in the humanities in general and translation studies in particular. In short, translation studies share the idealist bias of cultural studies, by being more interested in representations of reality than in reality itself. In this book, I endeavor to deal with this much-debated, complex argument that underlies so much of scholarly thinking from a semiotic point of view.

12 *Conceptualizing Translation*

Before starting the chapter, I need to motivate my logic in selecting texts to include in the discussion. Concerning a timeline, it is generally accepted that translation studies as a formal field of study originated after the Second World War (Tymoczko, 2007, pp. 15–53). Work from before 1945 is discussed in books on the history of translation (see e.g. Robinson, 1997) or represented in translation-studies readers, such as Baker (2010) and Venuti (2005). I take Holmes' conceptualization of translation studies as another key moment in the development of the field, and then use Tymoczko's influential book of 2007 as another key moment. This leaves me with roughly three periods of interest: 1945–1972, 1972–2007, and 2007 to the present. These periods are working hypotheses and could certainly be constructed differently. As the discussion will show, semiotic thinking on translation has increased significantly since the 1990s, though much work still has to be done to unlock its potential.

Concerning the choice of texts, I cannot claim to have read every single publication that refers to translation, which would be virtually impossible, because translation has been discussed in fields ranging from mathematics, biology, and medicine to semiotics, literary studies, and linguistics, not to mention sociology and development studies. Thus, I focused on texts that, in my judgment, contributed to shaping an understanding of translation in translation studies, as the title of the chapter suggests. In structuring the discussion, I had a choice, between thematic or historic organization. I decided on an historic structure, because it would show how the conceptualization of translation developed, and it allows me to enter into a quite detailed debate with individual authors on matters of conceptualization. However, this choice meant that the discussion would be prone to repetition: even though scholars contributed something new to the debate, their arguments would, basically, be similar to previous ones. In an effort to circumvent this repetition, I chose something of a middle road. For each time period, I discuss a maximum of five influential contributions, and I added a section called 'Semiotic Buds,' in which I incorporate arguments by some less influential authors who, nonetheless, made significant contributions to conceptualizing translation. In addition, I was constrained by the number of languages I can read, which is English, Afrikaans, and Dutch, with a very limited understanding of German.

If I considered each reference to translation, I would end up with a whole book, not a chapter, without necessarily rendering more insight than reading a selection of texts would do. Therefore, pragmatic considerations and parsimony (Occam's razor) determined the amount of the reading and writing I could do. Following Pym (1998), I hope to provide sufficient evidence for the case I want to argue. I started off, as indicated next, by reading the most influential texts on the topic, which in itself implies a value judgment and which, given the constraints referred to at the beginning of the chapter, were mostly European or Western in origin. I then used those texts to obtain further references to scholars who might have contributed to this topic. In

this second phase, I had to judge the relevance of these further references, because some of them would entail a single sentence in a whole book, or perhaps one section in a chapter.

I could find only one monograph dedicated to conceptualizing translation (or translation studies), namely *Enlarging Translation; Empowering Translators* by Tymoczko (2007). Furthermore, Gambier and Van Doorslaer (2009) edited a collection called, *The Metalanguage of Translation*. I took the seminal articles by Jakobson (2004) and Holmes (2004) to be core texts for understanding the development of the field of translation studies. To these, I added Nida's (1964; 1969) early efforts to found the field of study in linguistics, and Toury's (1995) work on descriptive translation studies, because they had such a major influence in translation studies. I also included Baker's (2006) *Translation and Conflict* in this category, because of the sheer magnitude of its influence. In addition to these, to be regarded as core texts, I explored a number of other influential books on translation, to look at the way in which translation or the field of translation studies has been conceptualized. Lastly, I perused journals that publish translation studies articles.

In addition to following the reference lists of texts that I read, I searched for articles by using Benjamins' online bibliography (Translation Studies Bibliography, n.d.). I returned 288 hits with the keyword 'semiotic' in the title. To systematize the findings somewhat, I created a number of categories by using the titles of the articles—the categories are listed in Table 2.1. What is important for my argument is that only 7% of hits that had 'semiotic' in the title actually referred to what could be called intersemiotic translation.¹ About 31% of the titles, grouped together as 'general' in the table, could not be categorized clearly, and about 19% of the titles referred to literary translation. The categories of film (5%), audiovisual/

Table 2.1 Data From the Translation Studies Bibliography

Category	Number	Percentage (%)
Audiovisual/ audio-description	51	17
Comics	10	4
Film	14	5
General	89	31
Interpreting	7	2
Literary	55	19
Media/news/web	19	7
Multimodal	11	4
Semiotics	20	7
Theater/song/opera	12	4
TOTAL	288	100

14 *Conceptualizing Translation*

audio-description (17%), theater/song/opera (4%), media/news/web (7%), multimodal (4%) and comics (4%), amounting to 41% of the hits, were cases where one would expect intersemiotic translation, but this was not necessarily the case. As with the link between semiotic and literary translation, the term semiotic was used quite broadly in this 41% of cases and, sometimes, without adding anything particularly semiotic to the analysis. What is perhaps more significant is that only 288 titles from a possible 28,000 titles in the bibliography, which amounts to 0.01%, had the word ‘semiotic’ in the title. Given that only 7% of these actually referred to intersemiotic translation, only 7% of 0.01% of the 28,000 titles, i.e. 0.0007% of the total, referred to intersemiotic translation, indicating the significant absence of semiotics in translation studies thinking, an absence about which Robinson (2016, p. 11) has ambivalent feelings.² I represent this search data in Table 2.1.

I now proceed to discuss some of the literature that contains efforts to conceptualize translation and/or translation studies.

2 1945–1972

As indicated earlier, all the periods I chose offer many more texts than the ones I discuss. I have chosen to discuss, in particular, texts that contribute most to conceptualizing translation or translation studies.

2.1 *Jakobson*

The first crucial text to consider is the well-known one by Roman Jakobson, dating from 1959. The distinction between intralingual, interlingual, and intersemiotic translation that is often cited in translation-studies texts and textbooks (e.g. Munday, 2016) has its origin in this article. Jakobson starts his discussion by arguing that meaning is not determined by empirical means, but in a complex interaction of codes and experience. He then quotes Peirce in explaining that, ‘the meaning of any lingual sign is its translation into some further, alternative sign, especially a sign “in which it is more fully developed”’ (Jakobson, 2004, p. 139). Through this quote, Jakobson, correctly, argues that meaning cannot be determined by empirical data. At best, meaning can be co-determined by reality (as I shall argue later in the book, when I discuss John Deely’s work) and then always through the relationships between signs and reality. Based on the Peircean conceptualization, Jakobson (Ibid.) presents his three categories of translation as follows:

1. Intralingual translation or *rewording* is an interpretation of verbal signs by means of other signs of the same language.
2. Interlingual translation or *translation proper* is an interpretation of verbal signs by means of some other language.
3. Intersemiotic translation or *transmutation* is an interpretation of verbal signs by means of signs of nonverbal sign systems (*italics original*).

For the purposes of my argument, I have to point to a crucial difference between Jakobson and Peirce, which took me quite a long time to pick up. Peirce's aim was to construct a theory of signs, i.e. a semiotic theory that would account for all signs, not only lingual signs (Deely, 2001, pp. 611–668). On the basis of this work of Peirce, and explored by Von Uexküll (1926, 1940 1982, 2010), a new field of study called biosemiotics was founded to study the (nonverbal) meaning-making and meaning-taking of all living organisms, not only humans (Favareau, 2007), which, I argue, is the first case of translation being studied without involving language as either the source system or the target system. Furthermore, Peirce's theory of signs is not, like De Saussure's, modeled on language (Deely, 2001, pp. 669–689). Rather, for Peirce, language is a subset of semiotics. Thus, the conceptualization upon which Jakobson draws is formulated slightly, but crucially, differently by Peirce:

Conception of a 'meaning,' which is, in its primary acceptance, the translation of a sign into another system of signs.

(CP 4.127)

The crucial difference is that Jakobson inserted the word *linguistic* into Peirce's definition, thereby focusing on the meaning of any 'linguistic' sign, while Peirce had in mind all signs. Jakobson, thus, turned Peirce's broad conceptualization of semiotics as a theory of all signs into a conceptualization of the semiotics of language, thereby narrowing the perspective of translation studies. It is this partly fallacious interpretation, or 'creative adaptation,' if one wants to be more positive, by Jakobson that underlies the linguistic bias in translation studies. While Jakobson can be forgiven for his interpretation, because he was a linguist and multimodal texts were few and far between in the 1950s, it is time that translation studies address this bias. Elsewhere, it is also clear that Peirce is not thinking of language only when he defines translation as follows:

Transuasion (suggesting *translation*, *transaction*, *transfusion*, *transcendental*, etc.) is mediation, or the modification of firstness and secondness by thirdness, taken apart from the secondness and firstness; or, is being in creating Obsistence.

(CP 2.89)

Here, translation is the mediating process between Firstness, Secondness, and Thirdness, a mediating process that needs not to be lingual, and that I explain in detail in Chapter 4.

The implication of the aforementioned is that Jakobson thought of translation as something that necessarily involves natural language; thus, translations can be within a language, between languages and between lingual and nonverbal (non-lingual) sign systems, but, in Jakobson's conceptualization, contra Peirce, translation cannot happen between nonverbal semiotic

systems—at least, Jakobson did not discuss that possibility in this text. Put differently, Jakobson’s conceptualization does not provide for translation between nonverbal semiotic systems, which is why nonverbal semiotic translation, perfectly possible in the Peircean conceptualization, has seldom been called translation, has seldom, if ever, been conceptualized in translation studies, and has relatively seldom been studied in translation studies. This is why one now has a proliferation of terms to indicate this kind of translation, e.g. multimodality, intermediality, as indicated in Chapter 1. One of the underlying lines of argumentation in this book is, therefore, that Jakobson’s limited interpretation of Peirce led to the illogical limitation of translation studies to interlingual translation, which limitation, now, with the advent of digital communication, among other developments, comes to the fore. Thus, translation-studies scholars do not study the translations between music and film, between experiences of nature and painting, or between political ideas and architecture, for example, as the translations that they are. The time has come to set the record straight. If we wish to conceptualize translation based on Peirce, as Jakobson purports to have done, we have to go back to Peirce to understand his notion of translation, thereby retranslating Jakobson’s translation of Peirce. Jakobson was not wrong when he defined the meaning of lingual signs as their translation into other lingual signs. He just did not realize, or chose to do so without motivating his choice, and thereby he limited meaning to lingual meaning.

Translation studies, thus, needs to reconsider its roots. Is it historically linked to Jakobson, or to Peirce? I argue for the latter, and I suggest that we replace Jakobson’s conceptualization of translation with that of Peirce.

2.2 *Nida*

From this period, one then also has to consider the seminal work of Eugene Nida, one of the foremost proponents of what is now called a linguistic approach to translation. In the preface to his *Toward a Science of Translating*, Nida (1964, p. ix) argues that ‘it was necessary to provide something which would not only be solidly based on contemporary developments in the fields of linguistics, anthropology, and psychology.’ He motivates the relevance of these three fields for translation by referring to Von Humboldt’s views that there are ‘profound psychological and philosophical relationships between language on the one hand and thought and culture on the other’ (Nida, 1964, p. 5).

Nida (1964, pp. 3–4) refers to Jakobson’s three categories of translation. Tellingly, he paraphrases intersemiotic translation, as ‘the transference of a message from one kind of symbolic system to another.’ This differs from Jakobson’s own definition in two significant ways. First, Nida does not refer to verbal systems at all, while Jakobson does. Second, he refers to ‘symbolic’ systems, a choice which limits semiosis to language, if one uses the Peircean definition of symbol, or to cultural phenomena, if one uses

a broader conceptualization of symbol. Peirce's conceptualization, I argue in Chapter 4, exactly tried to enlarge this narrow view of semiosis as language by including icons and indices as 'prelingual' forms of semiosis. Nida's (1964, p. 7) quote from Russel and Wittgenstein, that 'Alle Philosophie ist Sprachphilosophie' [All philosophy is philosophy of language], confirms this linguistic bias, a bias that is foundationally challenged by Deely (2001, 2009b), who would argue that all philosophy is semiotic philosophy or the philosophy of meaning.

Important for my argument is that Nida (1964, pp. 6, 30–31) then refers to the work of De Saussure as the most important European source for thinking about semantics. Despite being a fellow American, Nida seems unaware of the existence of Peirce. Nevertheless, Nida makes a case for the foundational role of meaning in translation by, first, writing a chapter titled 'An Introduction to the Nature of Meaning,' which might as well have been a chapter on semiotics. He follows this up with two chapters, 'Linguistic Meaning' and 'Referential and Emotive Meanings,' as well as a chapter called 'The Dynamic Dimension in Communication.' His chapter on the nature of meaning shows the same limited conceptualization of meaning, i.e. the meaning of symbols, i.e. language, as his introduction. Even when he does discuss iconicity and indexicality, citing Reichenbach as a source (Ibid., p. 30), not Peirce, he distinguishes clearly between non-human and human indices and icons, and moves on very quickly to a discussion of the indexicality and iconicity of language. Equally, when he writes about communication, he assumes it to be human communication, and by means of language (Ibid., p. 120). For him, the code of communication can be nothing but language, and the only relevant distinction as far as code is concerned, is oral vs. written language, and the specific language used. I have to note here that I found this kind of reference to semiotics, i.e. limited to the semiotics of language, in a number of translation-studies scholars (Bassnett, 2014; Chesterman, 1997; Gentzler, 2012; Hermans, 1999; Venuti, 1995). Although they can rightfully claim that they did refer to semiotics in their conceptualization of translation, their conceptualization of semiotics was so narrowly limited to the semiotics of language that, for all intents and purposes, it maintains the linguistic bias in translation studies.

In his work, *The Theory and Practice of Translation*, Nida (1969) again deals with meaning, which he, again, restricts to lingual meaning. In fact, it seems that his theoretical position, namely generative grammar, causes him to conceptualize translation even more narrowly in terms of linguistic meaning. His big theoretical move, from formal equivalence to dynamic equivalence, has everything to do with the making and taking of meaning, but his conceptualization remains narrowly linguistic (Ibid., pp. 1–2, 13, 56–98). I conclude that Nida considered translation, in whichever form, to be a matter of meaning, but that the bias in his data (biblical texts), which is a bias of space and time, and his limited understanding of semiotics, cause

him to limit his notions of meaning to linguistic semantics, rather than to explore the full scope of semiotics.

2.3 *Holmes*

The last text from this period that I wish to discuss is the founding text for translation studies, namely James Holmes' 'The Name and Nature of Translation Studies,' which was first published in 1972.³ Holmes (2004, p. 180) starts off by pointing out that new scholarly endeavors bring with them, 'the paradigms and models that have proved fruitful in their own fields'—an approach that can be either amenable or detrimental to the research program of the new field of study. Ironically, I argue, it is this 'translation' of paradigms and models into translation studies from linguistics, literary studies and cultural studies that has limited the field, by wrapping it in a linguistic bias.

At first sight, Holmes' conceptualizations of translation seem quite neutral, as if it could include non-linguistic translation. He refers to 'the phenomenon of translating and translations' as the object of study of translation studies (Holmes, 2004, p. 181). Elsewhere, he quotes Werner Koller's definition of translation studies, as a field of study 'taking the phenomena of translating and translation as their basis or focus' (Ibid., p. 184). One is even tempted to get excited when he says that there is interest in translation studies, albeit from 'remote' disciplines, such as information theory, logic, and mathematics (Ibid., p. 181). This kind of translation studies, which deals with all semiotic processes and phenomena, would have been much wider ranging than what we currently have. When one starts looking closer, however, the linguistic bias shines through. First, Holmes refers to fields adjacent to translation studies and lists linguistics, linguistic philosophy, and literary studies (Ibid., p. 181). When he looks for what constitutes the field of translation studies, he says that comparative terminology or lexicography could be candidates, and that some scholars may even look at translation studies as identical to comparative or contrastive linguistics (Ibid., p. 183). He then makes the case that these fields are 'different, if not always distinct' from translation studies (Ibid.), indicating that he does see a close link between translation studies and the adjacent fields. When he discusses the product, function, and process nature of descriptive translation studies, the unbridled linguistic bias comes to the fore. Terms and phrases such as 'text-focused,' 'various translations of the same text,' 'those made within a specific period, language, and/or text or discourse type,' 'literary translations,' 'Bible translations' (Ibid., p. 184), 'literary histories,' and 'another language' (Ibid., p. 185) are, to my mind, clear indications that Holmes had in mind interlingual translation when he conceptualized the field of translation studies. Again, when he discusses partial translation theories, the media, areas, rank, text types, time, and problem-related theories, his discussions all pertain to interlingual translation.

To me, it seems clear that the founding fathers (mothers came later) of translation studies were, understandably, bound to the linguistic and literary bias that their space and time bequeathed them. Therefore, it is not surprising, given these founding texts, that following generations of translation-studies scholars grew up with the notion of translation as interlingual translation. They clearly saw, as the next section will indicate, the limits of studying interlingual translation from a linguistic or literary perspective only, which is why translation-studies scholars turned to pragmatics, cultural studies, and sociology to study more facets of translation. However, the conceptualization of translation, though studied from ever-new perspectives, remained the same, i.e. interlingual translation, despite a growing body of literature in semiotics and other fields of study that argued otherwise.

In this period, Jakobson stands out, because he at least considered translation processes between nonverbal and verbal sign systems. He clearly provides for this, but he did not go far enough and, as indicated earlier, it is time to work out the full implications of Peircean semiotics for translation studies.

3 1972–2007

3.1 Toury

In his highly influential book, *Descriptive Translation Studies: And Beyond*, Gideon Toury (1995, p. 1) starts off by making a strong case for translation studies as an empirical field of enquiry and, thus, a field that needs a descriptive branch of study to stand in a reciprocal relationship with its theoretical branch. In making his argument for empirical research, he (Ibid., p. 1) argues that it does not matter

[w]hether one chooses to focus one's efforts on translated texts and/or their constituents, on intertextual relationships, on models and norms of translational behavior or on strategies resorted to in and for the solution of particular problems

as long as these data are empirical. At this point, his notion of 'translated texts' already points strongly to a purely linguistic and/or textual conceptualization of translation, but his loose conceptualization of translational behavior and strategies in this particular quotation leaves the door open for a wider conceptualization of translation.

A little later, he acknowledges the existence of fields other than translation studies, whose 'subject matter could well have been translational,' for example, contrastive linguistics, contrastive textology, text linguistics, pragmatics, and psycholinguistics (Toury, 1995, p. 3). To my mind, with the notion of 'translational' in the earlier quote, he had within his reach an opportunity to conceptualize 'the translational,' which should be the

perspective from which translation studies engages with reality. However, he does not discuss the nature of the translational and goes on to build his conceptualization of translation on Holmes' map (*Ibid.*, p. 10). Toury (*Ibid.*, p. 11) makes a valid call for an approach that recognizes the interrelationships between all kinds of individual studies concerning the translational, but the translational itself remains 'textual-linguistic' (*Ibid.*, p. 12). He does (*Ibid.*, p. 13), indeed, refer to 'cultural-semiotic conditions' under which translational phenomena occur, but he does not specify these conditions or distinguish them from textual-linguistic relationships. On the next page, he refers, again, to 'the semiotic perspective we have adopted throughout' and '[s]emiotically then, translation is as good as initiated by the target culture' (*Ibid.*, pp. 14, 27), but the nature of this semiotic perspective is not specified. One is, thus, left with no other option but to judge his commitment to semiotics by considering the examples he uses, which seem to limit translation to interlingual translation. As an aside, it seems to me that Toury prefigures the later arrival of the sociology of translation, which is actually the sociology of interlingual translation as it is currently practiced in translation studies.

With this as background, Toury (1995, p. 23) then turns to 'the proper object of study,' which he conceptualizes as follows: How is one to determine what would be taken up and what would be left out? Indeed, he seems to be attempting a typical definition with which to determine what are translations and what are not, a position criticized by Tymoczko (2007, pp. 15–106) for being positivist. As I argue elsewhere (Marais, 2014, pp. 75–76), the formation of theory does not happen on the basis of an object of study but, rather, on the basis of a perspective of study, a position that I would maintain, whether translation studies is viewed as a discipline or a type of 'area studies.' Theoretical conceptualizations are made by abstracting a particular perspective from the complexity of reality and, for the purposes of that study, looking at reality from that perspective only. Thus, mathematicians do not study only numbers. Rather, they study the numerical in all of reality. They look at the whole of reality and abstract the mathematical from that—and that is their field of study. Thus, math is not only used in accounting and politics, but also in psychology, theology, engineering, and art, to name but a few. Equally, historians do not study only historical events. They study the historical dimension of any event, be that politics, sport, art, or religion, for example.

Thus, Toury is, in my opinion, committing a conceptual fallacy when he looks for phenomena to be called 'translations,' be that in the source or target culture. Furthermore, he reduces the field of translation to the popular, everyday conception of translation by insisting on translation as being determined by reception. I cannot see a mathematician or a historian allowing herself to be dictated to by popular reception in relation to the nature of mathematics or history. Rather, the scholars in a particular field need to conceptualize their field of study and then study it as such. I do not want to do away with the phenomenological perspective that specialist knowledge

arises from the knowledge of general experience. Neither do I want to do away with the possibility of studying public perception or including it as a perspective in translation studies. I just do not think that either side (scholars or the public) should dictate to the other. Should we follow Toury's suggestion, many things that could, according to a particular definition, such as Peirce's, be presented as a translation, are not. This means that their translational aspect is never studied, rendering translation studies a field of study narrowly confined by popular opinion.

I return to Toury's linguistic bias. When he conceptualizes translation by means of his three postulates (Toury, 1995, p. 33), the underlying thinking is linguistic, not semiotic, at least not Peircean semiotic thinking. For instance, under the source-text postulate, Toury (*Ibid.*, pp. 33–34) says that texts (admittedly he does not specify whether these are lingual, cultural, or social) that are translations assume the existence of another text, 'in another culture/language' (*Ibid.*, p. 33). He also refers to 'concrete texts in languages other than the target's' (*Ibid.*, p. 34). When discussing the relationship postulate, Toury (*Ibid.*, p. 350) refers to 'the cultural-semiotic (and linguistic) border' again. Once again, it is not clear what he means by cultural-semiotic and what its relation is to language—here, it seems that language is something over and above semiotics. However, when discussing examples, he (*Ibid.*, p. 35) refers to 'pseudotranslations,' which assumes an interlingual conceptualization of translation. He concludes by, once again, referring to texts 'in another culture and language,' assuming an interlingual notion of translation. Last, Toury's highly influential and controversial notion of norms consistently assumes interlingual translation when he talks about translation. All references are to languages and texts (*Ibid.*, pp. 58–61).

Toury does indeed open the possibility of conceptualizing translation in terms of semiotics, though not nearly as strongly as Jakobson. I think that Toury, like most translation-studies scholars who refer to semiotics, has in mind the semiotics of interlingual translation, not the semiotics of translation. His views, thus, contributed to keeping dormant the semiotic DNA in Jakobson's thinking.

3.2 Steiner

Another text from this period that deserves attention is George Steiner's (1998) *After Babel*. Steiner situates his conceptualization within communication theory (*Ibid.*, p. ix), a position that I wholeheartedly support. However, the examples in his introduction (Steiner, 1998, pp. vii–viii) seem, at first glance, to indicate that he conceptualizes translation as interlingual translation only, despite his reference to Jakobson and to communication theory.

In the rest of his book, this contradiction remains. For example, in Chapter 4, 'The Claims of Theory,' Steiner (1998, pp. 274–275) argues that 'translation extends far beyond the verbal medium.' He (*Ibid.*, p. 275) then

uses examples, such as ‘the plotting of a graph, the “making” or “arguing out” of propositions through dance, the musical setting of a text, or even the articular of mood and meaning in music *per se*.’ On the same page, he makes a strong point that every translation, even those of linguistic signs, are in some way ‘creative transposition.’ To my mind, this is exactly the implication of Peircean semiotics for conceptualizing translation. This is, as Steiner (Ibid.) himself argues, the common ground at work in all translation processes. In another place, he links translation and understanding more fully, but he then, again, limits hermeneutics to ‘the investigation of what it means to “understand” a piece of oral or written speech’ (Ibid., p. 249). In a move that I think is correct, though limited when he first wrote in 1975, Steiner (Ibid., p. 298) argues that translation plays a role in conceptualization, in the way in which sensations of visual, auditory, olfactory, and tactile nature are translated into perceptions. Unfortunately, he again makes the link between this kind of translation and language. I take up this very question in Chapter 5, in a discussion of the semiotic theory of John Deely, who argues, based on Peirce, that translation is exactly the process through which sensation, perception, and understanding is related. Steiner (Ibid., p. 300) also raises evolutionary questions about the multiplicity of languages, a topic I shall not expand on. However, underlying this question are questions about biosemiotics and the emergence of meaning and mind, to which I shall attend in Chapter 4.

Steiner (1998, p. 151) also raises the question concerning translatability, which refers to the problem of solipsism that Deely (2007) ascribes to the underlying idealist assumptions that are dominant in modern Western thought, in particular in far as thinking about language is concerned. It is another reason why semiotic theory could be beneficial to translation: Semiotics explains why translation is possible, though never either absolute or easy. Translation is only impossible if one assumes a source text to be a static phenomenon that is written in a source language as a static phenomenon that is related to a source culture as a static phenomenon that is to be mapped logically onto a target text as a static phenomenon in a target language as a static phenomenon and a target culture as a static phenomenon. If one assumes, as I do later in this book, that meaning is a process of creating relationships, then, in interlingual translation, the source text is already a translation in a web of relationship processes with a source language that is a process of relationships between language users and their culture, which is a process of relationships between ideas in people’s minds, etc.

When conceptualizing translation, Steiner (1998, p. 293) makes the choice clear: Translation is either a process that explains all meaning-making and meaning-taking, or it is a process limited to interlingual semiosis, and I fully agree that these are the only options. He chooses the first (as Eco, 2001 chooses the second), because the second will, in his words, be damagingly restrictive. With this, I agree. With technological development, multimodal communication is becoming the norm, and translation studies will define

itself out of existence if it limits its interests to interlingual translation only. Furthermore, even aesthetic artifacts are becoming increasingly multimodal. This means that translation studies might run the risk of not being able to account fully for translational phenomena in various forms of aesthetic expression, including multimodal art, which often includes literary texts, which have always been part of the preoccupation of translation studies. How, then, is one to understand Steiner's next point, namely that '[b]oth or either concepts, the totalizing or the traditionally specific, can be used with systematic adequacy only if they relate to a "theory of language"'²⁴ (Steiner, 1998, p. 294)? Why language? To me it seems clear that the specific option, i.e. translation is interlingual translation, could be explained by a theory of language. However, the universal option, i.e. translation is all meaning-making and meaning-taking, can only be fully explained by a theory of semiotics, which is what I intend to do in Chapters 4 and 5. To me, the only explanation for Steiner's 'about turn' is the pervasiveness of the linguistic bias in Western scholarly circles, a bias also found in Umberto Eco who, just like Steiner, bases his thought on Peirce. The solution to this bias is, at least, threefold, as I argue in detail in Chapter 4. First, we need a biosemiotic theory that considers all living organisms and their communication systems, not only human language. Second, we need a process philosophy to underlie translation theory. Third, we need to delve deeper into the implications of Peircean thought, as I intend doing with reference to the work of John Deely.

Perhaps a comment is needed here on philosophical discourses about translation. I am thinking here about, to name but a few, Schleiermacher (2004), Nietzsche (2004) and Ricoeur (2006). While I have been arguing for a philosophical approach to translation studies for a while, I cannot help but note here that all these philosophers philosophize about interlingual translation. Except for semioticians and semiotically inclined philosophers, such as Charles Peirce and John Deely, I have not yet read a philosophical treatment of a semiotic conceptualization of translation.

3.3 Baker

A highly influential book that needs mention here is Mona Baker's (2006) *Translation and Conflict*. The book has rightfully had a huge impact on translation studies, by arguing that communication across conceptual boundaries is not as easy as positivist or naïve viewpoints make it. Baker (Ibid., pp. 8–27) takes recourse to the epistemological tenets of narrative theory to argue that human beings are caught up in virtually non-communicable narrative worlds of different kinds.

However, from the perspective of my argument in this book, two matters are relevant. First, Baker limits her data analysis mostly to interlingual translation. What she needed to have done was to expand narrative theory to include the way in which material society is structured (narrated)—which

I call ‘object translation’ in Chapters 5 and 6. Where she does use visual data (of which she presents a significant amount), she has only narrative theory to account for it. If she had had a semiotic theory (of the multimodal or multimedial type, see Kurtz et al., 2016) to augment her narrative theory, her analyses could have been much richer. For example, Baker’s (2006, pp. 64–66) analysis of subtitles in the documentary film, *Jenin*, picks up the framing of martyrs as victims in the translation. However, her analysis does not in any way reflect the semiotic contribution of the screen shot she provides. Furthermore, her equally insightful analysis of a document on the deaths of Africans through slavery and colonization, does not include any analysis of the geometric forms and the skull on the document she provides (Ibid., pp. 58–59).

Second, and more importantly, Baker’s work is the epitome of the idealist bias that has become so dominant in translation studies. Her account of narratives as incommensurable and incommunicable leads to the very solipsism that Deely (2001) ascribes to idealist thinking. The constructivist version of idealism, as espoused by Baker, means that each human being is seen, first, as a mind with an own narrative world, which either cannot be communicated or struggles to be communicated. One can see that Baker is aware of this dilemma as she tries, in the last chapter, to find ways of conceptualizing communicability between narratives. However, as Deely correctly argues, communicability cannot be an add-on to human existence or human knowledge. His semiotic epistemology, which I discuss in Chapter 5, allows for conceptualizing knowledge and being semiotically, i.e. as primarily relational through signs.

3.4 *Tymoczko*

Maria Tymoczko’s contribution to conceptualizing translation in *Enlarging Translation, Empowering Translators* is not only important because it is the only full-length effort at doing so, but also because she is one of a very few scholars who engages the topic philosophically. The first chapter of the first part of the book is called ‘A Post-Positivist History of Translation Studies.’ Tymoczko’s main argument in this chapter is that translation studies emerged in the wake of the demise of positivism and the rise of post-positivism. Being critical of ‘realist or positivist orientations to knowledge’ (Tymoczko, 2007, p. 18), she prefers a translation studies that does not ‘solve the problems but . . . problematize the solutions’ (Ibid). In her estimation, translation studies is, thus, characterized by an epistemology that is self-reflexive (Ibid., p. 19) and perspectival, as well as open to arbitrariness and incommensurability and the importance of convention (Ibid., p. 22). This position, though laudably not positivist, is not without problems. One problem is that this kind of critically inclined scholarship, one which only ‘problematizes the solutions,’ has nothing to say to some of the major questions facing society, such as, how does one construct a successful society,

what processes would lead to successful societies, what are successful societies? It is basically an approach of being critical after the fact, not constructively contributing to building a society. The underlying epistemology is one of hopelessness, having given up all hope for constructive engagement and settling for a critical perspective that is able to point out what has gone wrong, but that is impotent about pointing out how to set things right. In developing contexts, however, the quest for solutions is as strong as the quest for criticism.

In line with this post-positivist position, Tymoczko (2007, p. 19) argues that ‘there are more and more strands involved in translation, more and more features of translation that vary across time and space and that must be accounted for and understood.’ She does not immediately make clear what these might be, but in the rest of the book, she tackles the conceptualization of translation, the Western bias in translation studies and the agency role of translators. Her conceptualization of translation, however, does not go any further than interlingual translation, despite the fact that she does huge work in enlarging the scope of interlingual translation studies itself (Ibid., pp. 54–106; see, in particular, footnote 1 on p. 54). All the examples she presents, from the very first page, refer to interlingual translation only, for example, that the Greeks and Romans knew what the languages and text types were that were involved in translation. She never mentions any intersemiotic translations from that era. Equally, her laudable efforts to include translation practices and styles from all over the world, and empowering translators to become agents, if not activists, still operate with the limited interlingual notion of translation.

Tymoczko (2006, 2007, pp. 20, 68–77, 2010b) tackles the Western bias in translation studies on a number of occasions. Once again, her conceptualization moves the field of study forward by questioning its ideological foundations. Once again, however, she is not able to go far enough, because of her own bias toward language. Furthermore, because she deals with ideas about translation in the 2007 book, she is not able to consider the material and social constraints on translation studies in, for example, Africa. The problem with translation studies does not lie at the level of ideas (only), but it is (also) located at a complex emergent level, where ideas are (also) constrained by the very space (matter) and time in which they are constructed. Translation is not only, or perhaps even mainly, determined by what people think translation is. It is also determined by constraints of time and space, such as the following:

- Economic constraints (not enough money to pay translation-studies scholars, because they do not bring in money, compared to translators, who do);
- Sociological constraints (post-colonial areas have to build a nation state with people from as many as 50 language groups, and the necessity to have a nation state makes them choose one official language, thus

eradicating the need for formal translation, see Marais, 2014, pp. 146–170; Molefe & Marais, 2013); and

- Politico-socio-economic constraints, such as that the informal economy is the largest part of the economy (meaning that much of what goes on as translation has never been studied, or is badly understood).

Overall, therefore, Tymoczko moves translation studies forward significantly by expanding the notion of translation and its underlying epistemology. Her work will stand for a long time as a substantial contribution to the field. However, her linguicism constitutes a bias that limits translation to interlingual translation.

3.5 *Steconi*

Steconi and Gorlée (dealt with in the next chapter) could, perhaps, be regarded as two of the pioneers of intersemiotic translation. In my view, Steconi's work, which started in the 1990s (Steconi, 1994), represents the start of a growing interest in semiotics in the field of translation studies. In a 2004 paper, he presents an argument for the semiotic conditions of translation proper. I take up some of his arguments again in the next chapter, but the point to be noted here is that Steconi does not conceptualize translation semiotically, despite claiming to do so. Rather, what Steconi (2004, p. 472) does is to conceptualize some 'distinctive features' of interlingual translation, for which he correctly uses Peircean semiotics as theoretical framework (see also Steconi, 2007). He, therefore, only conceptualizes interlingual translation, semiotically. Doing so is in itself a valid endeavor, but it still stops short of conceptualizing translation in such a way that it includes all possible semiotic processes. What is needed is not only a semiotic conceptualization of interlingual translation but a semiotic conceptualization of translation *per se*. On the basis of his conceptualization, Steconi is correct in arguing for a narrower conceptualization of translation, distinguishing between semiosis as a larger category, and translation as an instance of semiosis. However, it seems he did not consider Peirce's conceptualization of translation—or interprets it more narrowly. He merely uses the accepted conceptualization of translation as interlingual translation and subsequently explores some of the implications of Peirce's thinking for this category (Steconi, 1994, pp. 5, 9). In this argument, he (Steconi, 2004, p. 473) rightly concludes that a semiotic conceptualization of translation could lead one to conclude that 'translation constitute the basis of all thought, language, language use, and communication.' However, he finds this implication unacceptable, because 'this line of thinking will not help one clarify what one calls translation in the first place.' What is not clear is why semiosis cannot be used to explain what one means by translation, seeing that this is exactly what Peirce did. This line of argument, as well as the examples that Steconi offers concerning translation in the European Commission, strengthens my suspicion that

he assumed translation to mean interlingual translation. In my view, Stecconi's commitment to translation as interlingual translation prevented him from accepting the logical conclusion that thought is in sign, to be translated into further sign.

Stecconi (2007, p. 17) makes the commonsensical observation that 'a painting and a book would say things in different ways because they are different media,' but it seems that translation-studies scholars, perhaps Stecconi himself, fail to see its relevance for translation studies. This failure can only be attributed to ideological reasons, not to logical reasons, namely that translation-studies scholars have found a niche for themselves in the field of interlingual translation because of linguicism. The sad consequence of the ideological tendency is that a myriad of fields are springing up around translation studies and taking up these very issues, leaving translation studies with less and less to study. Nevertheless, Stecconi (Ibid., p. 170) correctly argues that semiotics, as a field of study that includes all kinds of meaning-making and meaning-taking, is able to overcome the binary between verbal and nonverbal signs. He, furthermore, argues that semiotics provides a viable model for translation studies as a negotiated relationship between the source, its interpretation, and the target (Ibid., p. 20). He points out another crucial matter, namely that semiosis is always process (Ibid., p. 21), i.e. movement in time. This means that the spatial metaphor of translation as 'carrying across' is relativized. When relativizing this relationship, one gets another perspective on equivalence, as Stecconi points out, explaining to some extent why a translation can never be completely equivalent (Ibid., p. 22). Like Tymoczko, Stecconi, quoting Torop, argues that culture is too relative for translation studies scholars to be able to conceptualize a universal notion of translation. Based on Peirce, I think the opposite could be proven, and I shall attempt it in Chapters 4 and 5.

In a move toward a process philosophy of translation, Stecconi (2010) suggests that one conceptualizes semiotic translation as a wave. In Chapter 4, I return to this highly relevant suggestion. Suffice it now to point out that Peircean semiotics indeed requires process thinking for translation. However, even in this paper, Stecconi, despite claiming the opposite, seems to be thinking of interlingual translation as the prototype of translation as process. While he claims (Ibid., p. 54) that he uses language examples 'only for the sake of simplicity,' the argument needs a non-simplistic example. Not only are all his examples from the field of interlingual translation, thus failing to support his argument for a semiotic conceptualization of translation, but he also claims that '[i]nterference provides perhaps the most useful analogy, because it corresponds to an observable effect of T-semiosis: the difficulty of dealing with false friends' (Ibid., p. 56). In this claim, false friends are an observable effect of (all) T-semiosis, which can only be true if you think of T-semiosis as interlingual semiosis. Should you think about translation between colors, how would false friends be an observable effect?

Despite my judgment that Stecconi did not go far enough, he should be regarded as, perhaps, the key figure, after Jakobson, to consider a semiotic theory of translation. What was mere DNA with Jakobson, has, perhaps, become seed with Stecconi, encouraging a number of translation-studies scholars to follow him. In the next section, I discuss a number of ‘semiotic buds’ that I found in translation studies—scholars who contributed to a budding semiotic approach to translation studies.

3.11 *Semiotic Buds*

Christiane Nord’s work can be regarded as the culmination of a German research and teaching tradition with a pragmatic approach to translation.⁵ Vermeer’s (2006) *Versuch ein Intertheorie der Translation* seems to me exactly the kind of text that is needed in translation studies. From the bit that I can understand, and in line with Nord’s own theory, functionalism wants to make room for translation within the large category of human action (Nord, 2001, 2005), in particular, interaction (Vermeer, 2006, pp. 305–366). However, Vermeer’s founding of translation studies in physics and a theory about systems of process (Ibid., pp. 57–156; see also works like that of (Görnitz, 2017) opens up the possibility of conceptualizing translation as more than linguistic interaction only. Instead, from his perspective, translation studies should study all kinds of human interaction. The same holds for Nord’s conceptualization, although she is, indeed, biased toward her teaching aim, namely interlingual translation, and therefore, to language. Should she go one step further and ask how human beings interact broadly speaking, she should be able to provide a much more comprehensive translation theory. In this sense, her theory is reminiscent of biosemiotic theories, which situate semiotics, and thus translation, in the basic category of organismic interaction with an environment.

In my view, Lefevere’s (Bassnett & Lefevere, 1990; Lefevere, 1985; 1990) notion of *rewriting*, which has been hugely influential in translation studies, has been built on semiotic principles, without Lefevere ever conceptualizing this link himself. Alongside anthologies, histories, criticism, and adaptation, translation constitutes a medium through which works of literature are ‘re-written,’ and translations thus produce and construct ‘images’ and ‘representations’ of authors, texts and entire periods of history (Lefevere, 1992, p. 7). According to Lefevere, the notion of rewriting enables the researcher to study translation in view of the role played ‘in the manipulation of words and concepts which, among other things, constitute power in a culture’ (Lefevere, 1985, p. 241), which manipulation Lefevere articulates through the concept of ‘patronage,’ giving rise to the ideological or power turn in translation studies. However, this insightful work leaves us with at least two questions. Rewriting is obviously a common denominator between anthology, history, criticism, adaptation, and translation, but is it the only one? In other words, would there be actions similar to rewriting

in which language does not play a role—what O'Halloran et al. (2016) call 'resemiotization'? What would resemiotization and rewriting have in common? Peirce would have answered this question by saying that it is the very nature of semiosis that makes all of this possible. Meaning can only be approached through meaning, interpretants can only be approached through interpretants. Translation is inherent in the process of meaning.

As a representative of the cultural turn, Susan Bassnett (2014, pp. 2–3) conceptualizes translation in terms of language because 'more people are moving between languages' and 'to take a text written in one language and transpose it into another language, for a new set of readers.' She does consider Jakobson's intersemiotic translation (*Ibid.*, pp. 7–8), but she calls it 'the loosest and most open to interpretation of his categories' and, furthermore, argues that, in translation, the verbal is always the starting point. First, I am not sure that Jakobson's conceptualization warrants the primacy of the verbal as a necessity, and, second, I am sure that Peirce's conceptualization definitely does not warrant this. What is clear, however, is that, despite the welcome expansion of the notion of translation to include aspects of culture, translation is still regarded as a linguistic endeavor. The cultural turn, to a large extent, expands translation studies to include the cultural aspects of linguistic communication, and proponents of this turn in translation studies are actually quite negative about 'cultural translation' (Trivedi, 2007).

In a text that I expected to expand the notion of translation to semiotics, Cosculluela (2003, pp. 106–107) spends a significant portion of her paper exposing and criticizing the so-called binaries of translation studies, preparing the way for a triadic Peircean conceptualization of these issues. However, what makes her argument problematic is that she seems to have no or very little knowledge of the debates in translation studies itself, such as the cultural turn, the functionalist approach and systemic approaches that were developed during the 1990s. However, when she argues that translation entails mediation (Thirdness)⁶ between two or more 'linguistic actualizations' (Secondness) (*Ibid.*, p. 107), she confirms her linguistic bias. First, referring to 'linguistic' Seconds that need to be mediated means that she is thinking of translation as interlingual translation, that is, translation between languages. Second, Peircean thought allows for degenerate signs (see Chapter 4), i.e. signs without (mental) interpretants or Thirds, which means that translation is not always at the level of Thirdness. Obviously, if you remain within the linguistic bias and think of translation as interlingual translation, all translations are interpretants of the nature of Thirdness. Thus, Cosculluela's conclusion might be correct, but her assumption, namely that translation always entails language, is questionable. Her contribution to translation studies, i.e. to expose translation-studies scholars to Peircean semiotics, is laudable, but limited, as much of her thinking seems to be focused on interlingual translation. Furthermore, she also shares the view of some translation-studies scholars that semiotic translation is one type of translation (see also Robinson, 2016), which I find problematic.

Deledalle-Rhodes (1996, 2007) also seems to assume that translation refers to interlingual translation. She introduces Peirce as an accomplished linguist who has done translation himself, and then points out that, in Peirce's time, translation studies was not a field of study, but that 'any person knowing two or more languages was commonly supposed to be able to translate a text' (Deledalle-Rhodes, 2007, p. 669). In all of this, she assumes that translation means interlingual translation. She goes on to argue that Peirce lived 'in a world in which translation theory could [*not*] be said to exist' (Ibid.), thereby ignoring the fact that he wrote substantially about translation as part of his doctrine of signs. While one cannot fault her for writing about Peirce's notions of the linguistic sign, the uncritical way in which she deals with his notions of translation does not do justice to Peirce's complex thinking in this regard.

Another noteworthy text from 2007, Sturge's (2007) *Representing Others*, wrestles with the problem of translation in non-linguistic contexts—ethnographic translation if you will. She argues, correctly, that translation and ethnography share the feature of talking on behalf of the Other (Ibid., pp. 1–2). However, when she discusses museums as translations, she has to fall back on linguistic categories, calling museums 'texts,' and therefore able to be studied as translations, because she uses 'language' and 'text' metaphorically. A Peircean theory of semiotics would have allowed her to conceptualize museums as systems of signs translated in ways that portray the perspective of the translator or, at least, the target audience; thus, causing ethical problems in the relationships with the incipient signs or meanings.

While translation studies has grown significantly in the 35 years under discussion earlier, and has expanded its approaches to studying interlingual translation to ever-wider circles of influence, its notion of translation has mainly remained stagnant as 'interlingual translation.' Stecconi's focus on semiotic process and Lefevere's explorations on rewriting, together with the broader perspectives brought by the likes of Tymoczko and Baker, were, I think, preparing the field for eventual acceptance of a fully semiotic conceptualization of translation. Much work, however, needs to be done before this comes to be.

4 2007–2018

The last decade has seen a significant number of books on either agency or sociological approaches to translation studies. Apart from Baker (2006) and Tymoczko (2007), whom I have discussed already, Bandia (2008), Gentzler (2008) Hermans (2007), Milton and Bandia (2009), Munday (2007), Tymoczko (2010a), and Venuti (1995), among others, have contributed to the debate on agency in translation. However, not one of them has shifted the conceptualization of translation itself. Rather, all of these texts consider either intra- or interlingual translation; to be precise, they study the agency role of translators in interlingual translation. While the aforementioned

contributions would, therefore, be noteworthy, for good reasons, I focus my attention in this section on publications that grapple with a broader conceptualization of translation.

As with the agency debate in translation studies, I find that sociological approaches to translation are actually sociological approaches to interlingual translation only, and do not enlarge the concept of translation itself.

4.1 Tyulenev

Sergey Tyulenev (2012), in particular, wrote a detailed analysis of the implications of Niklas Luhmann's work for translation studies. In my view, Tyulenev is actually the only one of the sociology-of-translation scholars who has tried to present an alternative conceptualization of translation itself, although his conceptualization could do with some clarification. Influential work by Wolf (2009, 2011, 2012, 2015; Wolf & Baer, 2016), as well as Buzelin, and others, hailed the advent of a sociological turn in translation studies. It could indeed be regarded as a turn, but it has still not conceptualized translation in ways other than interlingual translation, despite rich conceptualizations of translation by sociologists such as Latour (2007) and Renn (Siever, 2017).⁷ Both Latour and Renn base their conceptualizations of translation on semiotics, to some extent (also see Tyulenev, 2012, pp. 92–101). In Chapter 6, I shall explore these conceptualizations in their relation to the Peircean semiotics that I develop. For now, I would like to consider Tyulenev's innovative work in more detail.

First, Tyulenev (2012, pp. 1–2), based on Luhmann, conceptualizes translation in systemic terms, not linguistic terms. For him, translation is a feature of systems, not of language, a move that, in theory, at least, counters the linguistic bias in translation studies. In particular, Tyulenev (*Ibid.*, p. 3) uses Luhmann's conceptualization of social systems as autopoietic systems, which are both closed and open to the environment. It is, in fact, communication that allows the possibility of the social (*Ibid.*, pp. 4–5). This kind of thinking is closely related to that of Deely (2009b) who insists that consciousness, or the world of ideas, should be explained semiotically. By explaining consciousness semiotically, you overcome solipsism, about which Tyulenev (2012, p. 3) is also concerned, and you acknowledge that consciousness does not emerge in isolation, only to be communicated at some later point in time. Rather, consciousness emerges semiotically, communicatively, in relationship to other consciousness. In Luhmann's terms, then, translation explains the communication between social systems (*Ibid.*, p. 5). By selecting a particular option from among the 'horizon of possibilities,' social systems constrain meaning and the proliferation of meaning (*Ibid.*), which constraints lead to the emergence of particular meanings. I deal with the notion of constraints in much more detail in Chapter 5. How far Luhmann (and Tyulenev) are willing to depart from 'linguistically generated intersubjectivity,' toward 'semiotic relationality' remains to be seen.

Tyulenev (*Ibid.*, pp. 12–13) does, however, define translation as ‘a semiotically broadly conceived text oriented toward another text’ In a diatribe against positions that wish to avoid blurring the boundaries of translation studies, in other words, approaches that wish to maintain the interlingual bias, Tyulenev (*Ibid.*, p. 13) writes,

If the line between translation and other intertextual activities is in danger, that is the last thing that should concern us: if the line is blurable, it should be blurred and will inevitably be blurred sooner or later.

One cannot deny that conceptualizing translation in terms of complex adaptive (autopoietic) systems represents an advance in translation studies, exactly because it allows one to see what is in between systems, or sub-systems, or the parts of systems (*Ibid.*, p. 8). What is needed, though, is a more detailed description of this system.

Tyulenev (2012, p. 16) argues that ‘translation’s principal responsibility is to separate the overall system from and at the same time connect the overall system with the environment.’ This means that translation is a boundary system, in other words, it forms the boundary between social systems, and its function is to be a permeable border or boundary that allows the flow of information between systems. From a systems perspective, this view would not be false. Indeed, for semiotic systems, like social systems, the flow of semiosis between systems is semiosis itself. In this sense, translation would be both an underlying cause of the system and the boundary of the system. I would argue that Tyulenev’s conceptualization advances thinking in the field, but that it does not go far enough to explain how the social emerges from the semiotic translation process (to be conceptualized as a system—hopefully in four dimensions). The relationship between translation and system is thus to be seen as reflexive and recursive. As translation contributes to the emergence of social systems, it also mediates between those systems, feeding back into the systems certain changes. Thus, what seems needed is a complexity approach that goes beyond linear causality, to conceptualize the nature of translation as system.

What is both advantageous and problematic in Tyulenev’s conceptualization (2012, pp. 105–106), is that he defines the nature of translation logically, in addition to calling it a subsystem or a boundary system. For him, translation entails a logical operation, not a semiotic one. To my mind, a definition of translation in terms of formal logic is a reductionist move, because translation entails processes of meaning-making and meaning-taking that cannot be reduced to the logical relationships between systems. I argue in Chapters 4 and 5 that it is crucial to conceptualize translation as a semiotic system or subsystem. In this sense, I am not sure whether translation is a boundary system only. Semiosis is what takes place because of and despite boundaries. The boundary is the membrane that is, paradoxically, both open and closed, and, in living organisms, it is traversed by sensations

that are interpreted as having meaning. Between social systems, the boundaries have to be conceptualized in a more complex way. That said, Tyulenev needs to be recognized as a significant contributor on the debate about enlarging the conceptualization of translation.

4.2 Gambier and Van Doorslaer

In a very recent collection, Yves Gambier and Van Doorslaer (2016a) bring together a number of interdisciplinary articles. In their introductory chapter (Gambier & Van Doorslaer, 2016b), they provide a brief overview of developments in the conceptualization of translation since the Second World War. In the process, they make two telling comments. The first (Ibid., p. 4), '[w]ith its relatively poor epistemological basis, TS runs the risk of fragmentation, and yet it is the umbrella for a wealth of studies,' puts into words one of the main arguments of my book. This argument is that translation studies needs a theoretical conceptualization, which I propose from within the field of semiotics. A second question is equally relevant (Ibid., p. 5): 'Has TS been more than a new space to solve the crisis in departments of linguistics and literary studies, especially in the English-speaking world?' Certainly, in the circles in which I move, many language departments are using translation, not only as a 'product' to sell to students, i.e. a degree that can help you get a job, but also to create the relevant research outputs. Translation studies is quite often seen as an easy way of getting research published, because you can easily duplicate research on an obscure language for 'interesting' data. While these efforts are not in themselves bad, the instrumental use of translation studies as a quick fix means that thorough, deep-going theoretical issues are often ignored in favor of pragmatic solutions that sell.

Gambier and Van Doorslaer (2016b, p. 6) note the use of translation in 'a broad range of disciplines,' and then argue that '[o]ne doubts that TS, based on a narrow meaning of translation, can explain much translated and translating phenomena in a broad meaning (based on the double metaphor of transportation and transformation).' The problem with their view of a 'broad' view of translation is that they assume, to some extent, as does James St André (2010) in his book, *Thinking Through Translation with Metaphors*, that an expanded or broadened view of translation entails a metaphoric use of the word translation. It must be granted that Gambier and Van Doorslaer (2016b, p. 14) say that this extended notion is not necessarily metaphorical, but they do not provide any guidance as to how the notion of translation can be expanded 'non-metaphorically.' Conceptualized semiotically, from a Peircean perspective, one can come up with a conceptualization of translation that is broad enough to deal with all translational phenomena, without recourse to metaphor.

Despite entertaining interdisciplinary discourses about translation, Gambier and Van Doorslaer do not try to conceptualize translation itself based on this interdisciplinarity. What is relevant to my argument, though, is their

quote from Michaela Wolf, who laments the fact that the term ‘translation’ is used in other fields of study ‘without ever finding it worth noting the existence of a specific discipline dedicated to it, namely Translation Studies’ (Gambier & Van Doorslaer, 2016b, p. 14). I argue in this book that this state of affairs, lamentable or not, is to be attributed, at least partially, to translation-studies scholars themselves. By sticking to an extremely narrow conceptualization of translation as interlingual and, perhaps, intralingual translation, translation-studies scholars have secured their field of study, all right, but at the exclusion of many translational phenomena that are now justifiably studied by other fields of study.

In a chapter in Gambier and Van Doorslaer’s book, House and Loenhoff (2016, p. 101) make the critical point that ‘translation can be conceptualized as an act of re-contextualisation.’ This view should open up translation studies to all kinds of re-contextualization of meaning, not only linguistic re-contextualization. However, their dominant view of translation still seems to be interlingual (Ibid., p. 101). Their views (Ibid., p. 103) that the notion of translation is not as fruitful in communication studies as in cultural studies, and that one would not be able to speak about a translation turn in communication studies as one would in cultural studies, are equally relevant to my argument. Should translation studies base itself on semiotics rather than linguistics, literary studies, or cultural studies, it would be able to engage communication studies to a much greater extent. In particular, House and Loenhoff (Ibid., p. 103) refer to Renn’s novel conceptualization of translation as ‘the explicitation of implicit knowledge and implicit normativity’ and ‘operations as analogous to translation between functional systems and contexts of action.’ It is only a semiotic conceptualization of translation that will allow scholars to engage in this debate that is spreading throughout the humanities, social sciences, and even biology.

In a highly relevant and informative chapter, Buzelin and Baraldi (2016) discuss the relationship between translation studies and sociology. It is clear from most of their examples and their theoretical conceptualization that their thinking about translation is limited to interlingual translation. Nevertheless, Buzelin and Baraldi touch on two matters of importance for my argument, one of which actually borders on a conceptualization of translation. The first matter pertains to their claim that ‘[t]he boundaries of sociology as a discipline, as they are fixed by educational and research institutions, do not include translation’ (Ibid., p. 120). Both Latour and Renn have suggested sociological theories in which translation plays a major role. It might be true that these boundaries are not ‘fixed by educational and research institutions,’ but this does not mean that some sociologists have not used the notion of translation as a core element in their sociological theorizing. Latour, especially, bases his notion of translation on semiotics⁸ (Greimas, 1990, in particular), which creates a precedent for translation-studies scholars to contribute to understand how translation plays a role, semiotically, in the emergence of the social. Should translation-studies scholars be able

to do this—and the jury is still out on the success of my own attempt in this book—we should be able to overcome the ‘asymmetry between the frequent search for sociological explanations in TS on the one hand, and the infrequent interest in translation in sociology, on the other’ (Buzelin & Baraldi, 2016, p. 134). By clarifying the role of semiotic process, i.e. translation, in the emergence of the social, translation studies could have a broad platform for interacting with sociology.

The second matter that Buzelin and Baraldi (2016, pp. 129, 131) raise is their understanding of translation as used by Latour as being ‘in the extended sense.’ I beg to differ from their interpretation of Latour. Latour uses a semiotic conceptualization of translation, which is not an extended sense, but the very core of what Peirce did when he conceptualized translation. Jakobson, building, to some extent, on Peirce, called this ‘intersemiotic’ translation. It is not an extended or metaphorical conceptualization. It is a scholarly conceptualization of the notion of translation from a semiotic perspective, rather than taking the popular, dictionary definition of the word ‘translation’ as its ‘real,’ non-extended sense.

4.3 *Robinson*

In a recent book called *The Dao of Translation*, Robinson (2015) attempts a dialogue between Eastern and Western thought (also see Robinson, 2014a, 2014b). Robinson (2015, p. 192) considers various aspects of the Peircean notion of habit, arguing for a ‘functioning of a collectivized habit in society,’ a point that he works out in more detail in another book (Robinson, 2016). However, this habit is still a habit of interlingual translation.

What is relevant for my argument is that Robinson claims to be operating within Peircean semiotics, citing work by Dinda Gorrée and a student of hers, Hartama-Heinonen. Robinson (2015) rightly argues that Gorrée ‘developed a number of radical conceptualizations not only of translation as semiosis but of all semiosis (sign-action) as translation, then renamed “translational semiosis” as “semiotranslation”.’ However, I am not convinced that Robinson himself does deal with semiosis. Logically, Peirce’s semiotics needs to be seen as embedded in his phenomenology (or phaneroscopy, as he called it). In Peircean thought, phenomenology obviously has a bearing on semiotics, because semiosis forms part of the phaneron, i.e. reality as it appears to consciousness, but the notions of abduction, induction, and deduction, which Robinson discusses in his first chapter, are not synonymous with semiotics in Peircean thought; they are phenomenological categories that have a bearing on semiotics, but they are not, primarily, semiotic categories. I have to be careful here. Because Peirce is a complexity thinker, all of his categories are related to all others in some way. In presenting his thought, however, I do not think it is a fair representation to represent the phenomenological categories of Firstness, Secondness, and Thirdness and their concurrent logical categories of abduction, induction, and deduction *as* semiotics. The

categories of Firstness, Secondness, and Thirdness are not, as such, semiotic categories. They are phenomenological categories. My understanding is that Peirce's semiotics is based in his phenomenology, not the other way around. Therefore, to equate his phenomenology and his semiotics without acknowledging some distinction between the two seems problematic.

In the second chapter of his book, in which he discusses 'transfeeling' (Robinson, 2015, pp. 35–85), Robinson does indeed expand the notion of translation beyond the rational. He argues that translation is performed based on empathy, which is a universal human trait. However, the examples that Robinson uses are still interlingual examples, not intersemiotic ones. In Gorlée's conceptualization, semiotranslation should be the broadest category, with interlingual translation as a subcategory of that. However, Robinson seems to use examples from interlingual translation only. This does not mean that he does not agree with Gorlée, but rather that he focuses on the phenomenology and logic of Peirce and not on the semiotics per se. In addition, Robinson does not work out the implications of Peirce's semiotics and, particularly, Peirce's notion of translation for the field of translation studies. Rather, he seems to be exploring the implications of Peirce's phenomenology for interlingual translation, which is a valuable contribution in itself, but which does not necessarily contribute to expanding the notion of translation to the full scope of possibilities as conceptualized by Peirce.

In his latest work, *Semiotranslating Peirce*, Robinson (2016, p. 220) explores Gorlée's notion of semiotranslating, arguing that it is an optative type of translation that operates on the hope that translation is a 'unidirectional, future-oriented, cumulative and irreversible process.' I am not convinced that Gorlée intended her notion of semiotranslation to refer to a (ideal) type of translation, but if she did, I think she was wrong. I argue in Chapters 4 and 5 that translation is indeed unidirectional, future-oriented, and irreversible, but I differ from Gorlée's following of the optimistic Peirce, and I am suspicious about the cumulative nature of translation. While Robinson's (2016, pp. 197–205) notion of translation as icosis, i.e. social semiosis, is a valuable contribution and in line with that of Latour, for instance, it is regrettable that his theory does not expand the notion of translation. As with many translation-studies scholars, he expands notions of interlingual translation by means of semiotics, but he does not expand the notion of translation itself.

4.4 *Sonzogni*

In a rare book on intersemiotic translation published in a translation-studies context, Sonzogni (2011, p. 4) asks whether there should be a relationship of 'fidelity' or 'integrity' between a book and its cover. Though this book is really about intersemiotic translation, i.e. between text and image, the translational question remains quite a conservative one, which I argue in the next chapter often happens in texts on intersemiotic translation. Scholars of

intersemiotic translation, like those of interlingual translation, seem to battle with the process nature of semiosis. In similar vein, Sonzongi theorizes book covers in terms of intersemiotic translation, or what he calls visual translation (Ibid., p. 20), but then uses an adage from Eco, who claimed that translation should say neither more nor less than the original—a typical prescriptive notion about the nature of translation, which is prevalent in linguistic approaches to translation. This narrow notion of translation, despite expanding it to visual translation, does not do justice to the complexity of multimodal semiotic processes, in which it is just impossible to ‘say’ no more or no less. Semiotic copying seems to be a Platonic ideal that dies very hard.

Sonzogni (2011, p. 20) argues that visual intersemiotic translation is based on what he calls ‘selected similitude,’ and he points out that the principle of reversibility, supposedly illustrated by back translation, is not possible. In an appendix at the end of the book (Ibid., pp. 157–169), he illustrates this irreversibility by means of a competition in which he provided people with a cover and asked them to write a plot for it. From a complexity theory perspective, which takes into account the arrow of time caused by the second law of thermodynamics, complete ‘cloning’ (Ibid., p. 20) is not possible. However, I point out in Chapter 5 that semiotic processes can, in theory, cause any kind of relationship between incipient and subsequent sign systems, because they are subject to both entropy and negentropy.

To my mind, Sonzongi is correct in calling the cover of a book an intersemiotic translation of the book. It is a pity that he did not provide a richer theoretical conceptualization by using multimodal semiotic theories, or even just pure semiotics. However, this is the kind of study, and others, that I would like to see in translation studies.

4.5 *Littau*

In a very recent forum in the journal, *Translation Studies*, Karen Littau (2016) wrote an article in which she argues in favor of considering materiality in translation. Arguing that materiality and ideationality are entangled to a point of no return for either, she points out that media are not just the instruments of communication, rather, ‘they set the framework within which something like meaning becomes possible at all’ (Ibid., p. 83). She argues that translation studies should revisit the cultural turn, and question its focus on ideas to the exclusion of media, a point on which I wholeheartedly agree and which I take up in Chapters 4, 5, and 6. However, it is not only media philosophy, technology studies and book history, as she (Ibid.) claims, that are trying to deal with the materiality of communication. Semiotics at large and a variety of fields of study, such as multimodal and multimedial studies, are considering the same matter. In my view, the common denominator in all of these fields is the nature of meaning as it emerges through communication, which is seldom (if ever) not material. In fact, one of the aims of this

book is to take up the issue of materiality within the larger frameworks of thought that are currently in swing, e.g. constructivism and cultural studies. Both of these approaches seem to assume that ideas are their object of study and that ideas have primacy over matter—a typically idealist position. In my view, and this is worked out in detail in this book, matter and mind co-exist in what Deely has called the web of experience, which cannot be disentangled, a view with which Littau seems to agree.

Littau (2016, pp. 85–86) argues, in my view, correctly, for extending the focus on language in Western thought to include all modes of communication. We do not live or think in language. We live or think in signs. She rightly attacks the idealist notions underlying Wittgenstein's ideas about language, and cultural studies' ideas about culture, arguing that we exist in an interplay with the world and its technologies. Using elegant phrasing, Littau (*Ibid.*, p. 88) says that '[t]he shift from the abstract to the concrete, from textuality to bookishness, is part and parcel of the slide from mediation to medium to mediality.' From her argument it becomes clear that a reprint is as much a translation as an interlingual translation. Littau's work provides support for my argument that, the more data translation studies is confronted with, the less it will be able to account for this data, due to its linguistic and idealist bias.

Unfortunately, it seems that even Littau (2016, p. 90) still sees translation as equivalent to interlingual translation when she writes that '[m]y basic premise was that mediality is an underlying condition of all cultural output and cultural transfer, including translation.' In this quote, (interlingual) translation is only one aspect of cultural output and transfer, a position with which I do not agree. From a Peircean perspective, all of culture entails a semiotic aspect made possible by translation processes, and interlingual translation processes represent merely one type of translation process.

Littau hints at another crucial point that I would like to touch on later, namely movement or process. She (Littau, 2016, p. 91) points out that writing and printing have led to static notions of representation, while the materiality of modern technological developments, such as movies and internet screens, allows for a process-oriented conceptualization of representation. She ends her discussion on book history by making the crucial point that communication is multimodal because of the multiple technologies that are available. Multimodality has to be the norm, also in a theory of translation.

Littau moves the debate forward significantly, however, I do not think that she has developed or presented all the implications that her thinking has for translation studies, which might be understandable, given her focus. Whereas cultural studies is biased toward idealism, it seems to me that Littau runs the risk of being biased toward materialism, when she (Littau, 2016, p. 92) writes that '[w]e do not discover the traces of technology in the meaning of our texts but in their material organization.' This statement belies her earlier argument about the indistinguishable link between matter and meaning. A more nuanced claim would be that the materiality of our

texts plays an undeniable role in the meaning of our texts, and vice versa. In this regard, see the responses on Littau's article by Armstrong (2016), Burkette (2016) Coldiron (2016), and Kosick (2016). Meaning and matter are reciprocal in the web of experience, without reducing either to the other.

4.6 *Semiotic Buds*

The first issue of the second volume of the 2009 edition of the journal *Translation Studies* was a special edition on the translational turn. In the introduction, Bachmann-Medick (2009) provides an insightful overview of the expansion of the notion of translation to include 'cultural translation.' In the article, she (Ibid., p. 3) argues that scholars working in the general field of cultural translation have expanded the notion of translation to include the translation of action—not only language. She then poses a crucial question (Ibid., p. 4; also see Buden et al., 2009):

Will the translation category, as it moves beyond the textual and linguistic level, stubbornly stick to the path of purely metaphorical uses of the translation concept? Or will new research approaches begin to elaborate a more sophisticated and detailed translation perspective in methodological and analytical terms?

I would like to extend her questions to include another question: Is there a metatheoretical or philosophical position from which this 'more sophisticated and detailed' theory of translation can be conceptualized? I indeed think there is: semiotics. A semiotic theory of translation, I argue, makes it fully possible to conceptualize cultural studies, and all of the humanities, if you will, in translational terms, without reverting to a metaphoric use of the term 'translation.' To put it correctly: A semiotic theory of translation makes it fully possible to conceptualize the translational aspect or dimension of culture, of society and of living organisms. Being semiotic constructs, culture emerges from translational actions. Translation is indeed, as Bassnett (2002, pp. 5–6) claims, a matter of (cultural) transactions. My point is supported further by Bachmann-Medick's quote from Mersmann (whom I shall discuss in the next chapter). The mere fact that Bachmann-Medick (2009, p. 12) needs to quote Mersmann's lament, that 'visual cultural translation is still under-represented in translation theory' is telling. However, what Bachmann-Medick does not seem to realize is that Mersmann is, indeed, calling for a semiotic approach to translation studies.

In the opening volume of the new journal, *Translation*, Gentzler (2012) argues in favor of a semiotic approach to translation studies, to what he calls 'the semiotic turn not taken.' While agreeing with his position, I do not completely share either his motives for reverting to semiotics, or the conclusions he draws. Let me first say how and why I agree with him. He argues that we should think of translation as 'less . . . a speech-act carried

out between languages and cultures, and instead as a condition underlying the languages and cultures upon which communication is based' (Gentzler, 2012, p. 1). In Chapters 4 and 5, I argue that this is exactly what semiotics suggests; however, Gentzler himself does not make any argument in this regard. Rather, he argues in ideological fashion, which is my main problem with his article. It is not only communication that is built on languages and cultures, but societies and cultures emerge from the semiotic work of human organisms.

The problem with Gentzler's motives is that he wishes to do away with border. In a sense, he is right, as I shall argue that a process approach to Peircean semiotics means that translation entails the non-discrete flow of meaning—similar to metabolism. However, that does not mean that the notion of border is not physically relevant or phenomenologically useful. The interesting contradiction with someone like Gentzler is that he is, on the one hand, both a relativist and a deconstructivist and, on the other hand, he wants to say how things 'really are.' Claiming that 'things are really relative' is as fundamentalist as claiming that 'things are really essential.' In society and culture, borders are semiotic constructs that are phenomenologically meaningful and required, although it is simultaneously true that they are not essential, natural characteristics of social and cultural phenomena—keeping in mind that the membrane around a cell is the archetype of border, and very real and very necessary at that.

In a thoughtful discussion on interdisciplinarity in translation studies, Lambert (2012) considers the number of turns in translation studies and argues, probably correctly, that these turns have not been motivated from within the field of translation studies itself, but rather from 'within larger interdisciplinary developments.' He, also correctly, I think, points out that such interdisciplinary contact requires a rethinking of translation studies. He does not, however, point to how, exactly, interdisciplinarity can expand the conceptualization, and seems ambivalent on this topic in his own thought. For instance, Lambert (*Ibid.*, p. 83) asks: 'How could we deal with the language(s) of film, television, the media without the support of competences from media research, i.e. without new interdisciplinarity?' He comments on this question by stating that '[L]inguists and linguistics often leave the language of the media to communication studies and vice versa' (*Ibid.*). In the first quotation, his use of the word 'language(s)' could still be regarded as metaphoric, indicating a broader conceptualization of translation. However, the second quote, 'linguists and linguistics,' makes it clear that he construes translation as interlingual translation.

In the field of translation studies, Ketola (2016) is one of a very few, but seemingly growing, number of scholars to write about multimodality. Although her article does not conceptualize translation semiotically per se, its clear point of departure is that, 'after all, a large number of texts being translated today are multimodal' (*Ibid.*, p. 67). She, therefore, correctly argues that one needs to 'extend the traditional boundaries of the discipline to

include the examination of images as an object of inquiry in their own right' (Ibid., p. 68). I cannot agree more, except to add that translation studies should be extended to include the study of all semiotic phenomena, not only images. As Ketola (Ibid., p. 72) rightly argues, and as multimodality studies has been emphasizing, 'the interaction of modes gives rise to genuinely new meanings,' which means that translation studies should indeed be enlarged to be able to deal with multimodality, seeing that multimodality is the norm in, at least, digital communication. In multimodal texts, it is not only the language that needs to be translated. All the modalities need translation. She also cites empirical research that indicates that visual and written material in a text are interpreted in an integrated way, to the extent that the same written text might be interpreted differently should there be different visuals that accompany it. These findings render a semiotic theory of translation urgently necessary in translation studies.

In another article in the growing body of multimodality literature in translation studies, Borodo (2015) provides theoretical and empirical arguments as to why translation studies need to be able to deal with multimodality—and, in my view, semiotics. Arguing that, in multimodal texts, language does not necessarily take prime position, Borodo (Ibid., p. 23) argues that one needs to be able to ask about 'the nature of the relationship between modes, how they interact and contribute to the creation of meaning on a multimodal page.' In an overview of previous literature on the topic, she points out how visual elements were sometimes seen as an obstacle to the translator. Her article justifiably focuses on the link between written language and visuals in comic books, and the translation thereof, but this argument can be made for translational relationships between any semiotic systems.

Fuchs (2009) raises a number of issues that are important for my argument. From a sociological perspective, he calls for a 'sociological concept of translation' (Ibid., p. 22). In the process, he argues that the entanglement between understanding, representing, and translating needs to be clarified. His own efforts at clarifying this relationship could be enhanced, in my view, if he started from a semiotic perspective, not a philosophical or hermeneutical one. What he needs is a general theory of both meaning-making and meaning-taking, not only of understanding, i.e. meaning-taking. For Fuchs, a sociological concept of translation entails that social actors are at work, trying to make sense out of experience (Ibid., p. 24). The implications of this view, which has been discussed in many contexts (Deely, 2009b; Sawyer, 2005; Searle, 1995), have not been worked out from a semiotic perspective.

Another point that Fuchs' article raises is the use of the term 'translation.' Fuchs seems to assume some kind of metaphoric use of the term, closely related to understanding and hermeneutics, as indicated earlier. Should one, however, conceptualize translation in semiotic terms, it provides a theoretical framework that is able to explain the role of meaning-making and meaning-taking in the emergence of the social. Referring to

Bachmann-Medick's 2004 article, Fuchs (*Ibid.*, p. 25) argues that culture itself 'has to be understood as' a process of translation. I cannot agree more. However, neither Bachmann-Medick nor Fuchs provides a theory that can explain why this is or has to be so. The closest Fuchs comes to conceptualizing translation is his view that translation could be viewed as an interactional process of transfer of meanings (*Ibid.*, p. 26), with which I once again agree, but for which he provides no theoretical or philosophical underpinning.

Fuchs also raises two philosophical questions that need to be addressed in translation studies. The first is the matter of relationality. It seems that translation studies, in idealist fashion, assumes difference and solipsistic minds and languages that, logically, cannot communicate or be related. Fuchs (2009, p. 27) questions this point of departure, but not in a strong enough fashion. He argues that we need not start from disconnection, as the point of departure, but from contact. I point out in Chapter 5 how John Deely argues that the solipsism in Western thought is a direct consequence of idealist assumptions, and how Deely points to the relationality inherent in semiotic process as an antidote to this solipsism.

The second philosophical point that Fuchs raises is that translation does not only deal with difference, but also with continuity. In particular, he refers to his empirical work in India, in which the Dalit translated their political agenda into a Buddhist framework. Fuchs (2009, p. 33) points out that, even though this translation has meant certain changes, 'links to the earlier state remain.' Translation, thus, entails both link and difference and, as Fuchs points out, 'difference . . . and change are not absolute. They are of significance or have an impact only against the background of continuity.' I have argued elsewhere (Marais, 2014) that current thinking in translation studies is biased toward contingency and change, ignoring continuity and stability. From a complexity perspective, living organisms need both (contingency and change as well as continuity and stability), but stronger forms of constructivism and critical theory seem to assume that advocating for change is the only antidote to the wrongs of the world. I argue in Chapters 4 and 5 that translation studies need to be conceptualized from a semiotic process perspective, and I explain not why everything changes, but why some things stabilize and take form.

In a thought-provoking article written in 2009, Dizdar (2009) argues that 'a "translational turn" can only take place effectively if all attempts to broaden the concept of translation (and/or to use it in a metaphorical sense) have "translation proper" as their point of reference.' He also, to my mind correctly, claims at the end of his article that

[t]here is neither empirical evidence nor a theoretical argument that could provide the criteria for drawing a clear-cut line between a concept of translation in the narrow/straight/strict sense ('translation proper') and broader concepts or metaphors of translation.

As my aim is exactly the broadening of the conceptualization of translation, I have a general affinity for this argument. However, on closer scrutiny, Dizdar's argument contains two problems. The first is that he maintains the bias toward interlingual translation. Why should interlingual translation be 'translation proper,' and why should 'translation proper' remain the point of reference for a broader theory of translation? While Dizdar and I seem to have the same aims, I believe that his views will only strengthen the linguistic bias in translation studies and weaken the theoretical underpinning of translation studies to study all translational phenomena, not as 'metaphorical' translations, but as translations. The proof of Dizdar's pudding is in its eating: All the examples he provides in his article are examples of interlingual translation (*Ibid.*, pp. 93–95).

This brings me to the second problem with Dizdar's thought. He does not realize that what he calls translation in a 'metaphorical' sense can be theorized in terms of semiotic translation. Conceptualized in Peircean terms, cultural translation is not a metaphorical use of the term translation. Rather, it is translation, i.e. the semiotic process underlying the creation of all kinds of meaning. What Dizdar does is to relativize the understanding of what it entails to translate one sign into another one—which is, once again, a fair endeavor in its own right. However, his claim that he, thereby, expands the notion of translation does not hold. He is only stretching the conceptualization of interlingual translation; in his words, exploring the 'potential for the creation of a more sensitive perspective on processes of understanding and communication in general' (Dizdar, 2009, p. 96). To really expand the conceptualization of translation, nothing less than a semiotic theory is needed. To be able to conceptualize translation, 'not from language to language but from body to ethical semiosis,' as Dizdar (*Ibid.*, p. 99) quotes Spivak, one cannot just metaphorically or metonymically expand the notion of translation to include 'similar' concepts. This will maintain the weak theoretical underpinning of translation. Peirce did provide us with a theory of translation 'from body to ethical semiosis.' I suggest we use it.

Dizdar quotes Sandra Berman's (2005) notion of translationality to argue for a broadened view of translation. I would agree that we need exactly a theory, not of translators and translations, but of translationality. We need to be able to study the translationality of all and any phenomena. However, a theory limited to language will not provide that to us. Language is only one aspect of translationality. We need to understand the full semiotic scope of translationality.

Korning Zethsen (2007) makes a meaningful contribution to the conceptualization of translation studies when she argues that few definitions of translation make room for intralingual translation. She (*Ibid.*, p. 282) argues that, since Jakobson, 'general definitions of translation have become less inclusive,' a point which my overview in this chapter supports. Quoting Tymoczko and Baker (*Ibid.*, p. 284), she demonstrates convincingly that translation studies are not finished with the task of conceptualizing

translation, mainly because it has not succeeded in making intralingual translation (and intersemiotic translation, in my argument) part of mainstream translation studies. Although Korning Zethsen writes with the aim of arguing for including intralingual translation, her arguments hold for intersemiotic translation. She points out the same kind of problems I found in Toury's conceptualization of translation, namely that building a field of study on a popular conceptualization is not feasible. In particular, the necessary condition in Toury's definition, namely that transfer should have taken place between two languages or cultures, excludes both intralingual translation and intersemiotic translation (Ibid., p. 297). Korning Zethsen's (Ibid., p. 299) own postulates of translation also exclude intersemiotic translation:

- A source text exists or has existed at some point in time;
- A transfer has taken place and the target text has been derived from the source text (resulting in a new product in another language, genre or medium), i.e. some kind of relevant similarity exists between the source and the target texts; and
- This relationship can take many forms and by no means rests on the concept of equivalence, but rather on the *skopos* of the target text.

One could argue that 'text' can be construed to include all cultural artifacts, but the point of Peirce's translation theory is that it allows one also to view natural phenomena as signs, and to interpret and translate them as such. In this sense, Korning Zethsen points out crucial limitations in translation theory, but does not go far enough in her remedies.

Pym (2016) launches a spirited (if not vicious) attack on the lack of empirical work in translation studies. As I show in Chapters 4 and 5, I agree with him on the merit on the argument (though not on his rhetoric), and I ascribe the lack of empirical research in translation studies to the influence of the cultural studies paradigm in translation studies. The cultural studies paradigm is steeped in idealist and, hence, constructivist epistemology and, thus, deals with ideas only. I also agree with Pym that translation studies needs to take a serious look at its epistemological assumptions, although I do not necessarily agree with his findings. The one point that I would like to make here is that Pym does not seem to consider the notion of translation itself, which is part of the epistemological problems he places on the table. The other point is that some of the realist tendencies in semiotics could actually provide support for Pym's argument for an empirical focus, which has, in my view, been on the decline due to the idealist underpinnings of translation studies.

Susam-Saraeva (2016) considers the ways in which new media call for new conceptualizations of translation, with reference to blogs, in particular. Her argument, that a blog 'effectively erases the differences between "translation," "adaptation" and "original" writing' (Susam-Saraeva, 2016, p. 8), and that 'to approach this passage through the lens of the term "translation,"

and the expectations that go together with this term, would be to do injustice to it' (Ibid., p. 10) is true as an observation, but Susam-Saraeva offers no theoretical explanation for why this is so. I argue that, from a semiotic perspective, all semiotic processes entail the same underlying translation process. The particular instances of those processes are determined by, among other things, the media that constrain the particular semiotic process. Once you have a medium that allows you to deal with texts in a particular way, and allows you particular affordances, the categories from other, more limited media become superfluous or irrelevant. Thus, semiotically, it is to be expected that new media will eradicate the differences created by previous media, not something to be astounded about. Although she does not make the argument, Susam-Saraeva's article is, in my view, a very strong argument in favor of a semiotic theory of translation. In fact, I think it would be fair to assume that the development of technology will cause many more of these hybrid forms of communication, and not only lingual communication. Rather, the font types, colors, photos, and even moving signs, ask for urgent attention to the semiotic processes underlying these forms. Sure, her argument for the Turkish notion of '*terceme*' is valid, but it, yet again, does not go far enough—translation, for her, is still a form of interlingual translation, and she ignores so much of the intersemiotic translation.

5 Conclusion

The literature that I presented earlier seems to indicate a bias, in general, toward language, literature, and culture in translation studies. This bias is confirmed by, among others, the interdisciplinary links between translation studies and linguistics, literary studies, and cultural studies. Approaches such as the sociological and power turns do not change the conceptualization of translation itself. Scholars utilizing these approaches still study interlingual translation; however, now from (yet another) new perspective. What was DNA in Jakobson has, thus, developed in a limited sense only.

My aim in this chapter was not merely a critique of efforts to expand the notion of translation. Rather, these kinds of contributions are the building blocks on which I try to build in this book. The literature shows clear indications of a growing awareness among translation-studies scholars of the limitations of a narrow interlingual conceptualization of translation. It also indicates a growing realization that semiotics is a viable avenue to explore, in order to overcome these limitations. We need to think more about what it is that makes translation this 'transfer thing.' We have to delve into why it is so that culture is translated. In my view, this reason lies in semiotics. Human beings, I argue, based on Peirce, live and think semiotically. They cannot do otherwise. The societies and cultures they construct are semiotic, meaningful responses to a variety of Others that they experience on a daily basis.

Notes

1. In this chapter, I still use the term intersemiotic translation, as this is what appears in the literature. However, in Chapters 4 and 5, I argue that a term like intersemiotic translation is obsolete, given the theory of translation I present. Having conceptualized translation as negentropic semiotic work done to create relationships between (systems of) signs, I discard the notion of intersemiotic translation, and refer merely to translation.
2. Searching for a term in the titles only may have led to a bias in my interpretation in that semiotics may have been discussed in articles where it does not occur in the title. The validity of the interpretation here should, thus, be triangulated through further study.
3. For the sake of referencing, I refer to the edition in Venuti's reader, because it has page numbers.
4. I assume that Steiner uses the term 'language' here to refer to 'natural language.'
5. Unfortunately, much of it is not available to me because my German is not good enough to read academic texts.
6. For a detailed discussion of these Peircean terms, please see Chapter 4, or the glossary at the back of the book.
7. As I do not read German, I have to rely on secondary sources for this material.
8. Shreve and Diamond's (2016) chapter, 'Cognitive Neurosciences and Cognitive Translations Studies' in Gambier and Van Doorslaer's collection is highly relevant, but ignores the very new field of cognitive semiotics, which would be able to provide translation studies with yet more conceptual tools for a comprehensive semiotic theory of translation.

3 Conceptualizing Translation in Semiotics

1 Introduction

In the previous chapter, I argued that translation studies has not paid sufficient attention to a theoretical conceptualization of the notion of translation, because of the linguistic, literary, and cultural bias of translation studies. In this chapter, I review literature from the field of semiotics to come to some kind of understanding about the way semioticians have been conceptualizing translation.

Once again, methodology is an issue here. First, I am not going into the Peircean literature in this chapter—I'm keeping it for the next. Second, because I have made a choice to focus on Peircean semiotics, I review only authors who based their views on Peircean semiotics. This means, third, that I, once again, need to provide some kind of categorization for the work I am discussing. This proved to be extremely difficult, yet again. I think that a temporal categorization does not help me here. Instead, I decided to discuss a number of influential authors in this field, because I cannot really detect much of a historical development yet. For now, I am taking the seminal work by Dinda Gorlée, *Semiotics and the Problem of Translation*, as a first point of reference. My second point of reference is Susan Petrilli's (2003a) *Translation*, which, though not a monograph, contains seminal work on the implications of Peircean thought for translation. A third point of reference is the influential work by Umberto Eco. I also attend to the work of Peeter Torop of the Tartu School in Estonia, Evangelos Kourdis from Greece, and João Queiroz from Brazil, who have all produced significant bodies of literature on this topic. I discuss the growing field of multimodality or multimediality with reference to authors such as Kress (2010) and Elleström (2010b), as the significant contributors.

In main, the conceptualization of translation in semiotics is broader than in translation studies; however, in my view, still not broad enough. In this chapter, I argue that semiotic conceptualizations of translation suffer from three weaknesses or biases. Semioticians tend to see semiotic sources and targets (their terms) as too stable, and that they should be enhanced by a process ontology. Furthermore, much of the work on intersemiotic translation

still focuses on interlinguistic translation—much of Gorrée’s work, especially her second book (2004) and most of Robinson’s work (2015, 2016) would fall in this category. Third, some of the conceptualizations of translation in semiotics has taken over interlinguistic notions, such as equivalence, source text and target text, which render a very limited view of the semiotic process. In this regard, multimodality studies has advanced much further toward the kind of non-linguistic, process semiotics that I think is needed to explain all forms of semiosis.

2 Intersemiotic Translation

2.1 Gorrée

Dinda Gorrée has to be credited with the first attempt, way back in 1994, to expand the notion of translation in line with Peircean semiotics. Quoting Peirce on numerous occasions, she argues that the most basic ways of thinking about translation entail that translation cannot be limited to being a linguistic phenomenon, but it has to be conceptualized as a semiotic phenomenon (Gorrée, 1994, p. 10). In what follows, I present the main points of her argument.

Gorrée laments the neglect of semiotics by translation studies, arguing that both fields (i.e. semiotics and translation studies) study communication and the construction and understanding of texts (1994, p. 11). In her view, translation studies has focused too much on empirical studies and too little on a theoretical clarification of its subject matter. This has led to a situation in which translation studies scholars are not clear about or are limited in what they regard as translation (Ibid.). Gorrée, furthermore, laments the eclectic nature of translation studies, which means that translation-studies scholars have found borrowing (‘methods, paradigms and models, often with a linguistic bias’ [Ibid.]) so easy that they did not critically consider the implications of their choices. This has led to the regrettable situation, according to Gorrée, that translation-studies scholars have not been able to put forward a unified theory of translation (Ibid.), which is one of the aims of my attempt in this book. The way forward, Gorrée points out, is by means of a general theory of signs, which will provide scope to study all possible translational phenomena, not only linguistic ones (Ibid.).

I think that Gorrée is correct in arguing that translation studies has used Saussurean semiotics, which she accuses of ‘linguistic imperialism’ (Gorrée, 1994, p. 34), rather than Peircean semiotics. This implies that translation scholars have followed the linguistic bias that is so dominant in Saussurean semiotics. Saussure, just like Peirce, claimed to be constructing a general theory of meaning, or semiotics, but he assumed that language is the ultimate semiotic phenomenon (which it probably is) and then modeled all semiotic processes on language (which is a reductionist stance; see also Chandler, 2007; Deely, 2001). One of the crucial points that I tried to clarify

in this book is that the total set of semiotic phenomena is much larger than the set of linguistic phenomena, because the former includes processes in all living organisms (including bacteria, plants, and animals), while language is used by human animals only (Favareau, 2007; Hoffmeyer, 2008; Kauffman, 1995, 2008; Sebeok & Danesi, 2000). Furthermore, even human beings communicate and make and take meaning that is not linguistic (Merrell, 1997, 1998, 2000b, 2003a, 2003b). A comprehensive theory of translation should, thus, be able to explain both linguistic and non-linguistic meaning-making processes (Gorlée, 1994, p. 26).

Gorlée (1994, p. 36) criticizes the structuralism of Saussure; she claims that it is biased toward how signs mean and does not pay sufficient attention to what they mean. This tendency to emphasize the how of meaning is also found in Shannon and Weaver's theory of information, and in theories that want to reduce meaning to information. Theories of information are prevalent in engineering and computational circles, and reduce meaning to the information load that has to be carried through a network or computed in a machine. With these theories, engineers and computational experts are able to transmit, store, and compute large amounts of information, but these theories are, for all practical purposes, silent on the meaning of the information. Translation studies, however, should be resolute in its pursuit to explain the emergence of meaning in all its complexity, including both its materiality and its absentiality (Deacon, 2013).

Turning to Peircean semiotics, Gorlée (1994, p. 27) makes a first crucial point, namely that Peircean semiotics concerns semiosis as process. In Peircean terms, a representamen (see Chapter 4 for full explanation) only becomes a sign when it enters into a process of being related to an object, and both of them are related to an interpretant. This radical process ontology questions the quite stable notions of source and target texts, as used in translation studies, and will be dealt with later in this book.

Gorlée (1994, p. 40, 47) developed the Peircean notion that all thought takes place in signs and that human animals think in order to create meaning—to ascertain what something means, among other reasons. What Gorlée does not account for is non-human semiosis. She does point out that translation, for Peirce, is not limited to a linguistic activity (*Ibid.*, p. 115), but she does not explore or explain the full implications of this claim and, especially in her examples, limits herself to interlinguistic translation. She also claims, wrongly, I think, that 'Jakobson's intersemiotic translation is inter-medium translation moving away from language (Thirdness) into the vast and highly diversified realm of the nonverbal (Secondness and Firstness)' (*Ibid.*, p. 124). As argued in Chapter 2, I do not think that Jakobson ever considered translation as taking place completely outside of language, while Peirce indeed did. In a post-humanist paradigm of thinking, where humans are no longer regarded as the center of either the universe or earth, it is crucial that a theory of translation is able to explain, not only human semiosis, but also non-human semiosis.

What is relevant to my argument is that Gorlée, while exploring the whole ambit of Peircean thought, does not develop this broad conceptualization in her use of examples. Rather, the examples she provides remain limited to the linguistic domain. She also, furthermore, limits her thought to the linguistic bias, by trying to establish a link between Peircean thought and Wittgenstein's language games. Her references to the Sapir-Whorf hypothesis (Gorlée, 1994, p. 105) and to Wittgenstein's thought on interlingual translation (Ibid., p. 110) do little to convince readers that she is not linguicentric at heart. Furthermore, the way Robinson (2015, 2016) presents her work in two recent books seems to confirm that her interest is not translation as a semiotic process-phenomenon, but instead the semiotics of interlinguistic translation, which is in itself laudable, but not enough.

As indicated in the introduction, I think that semiotics operates with a relatively outdated notion of translation, one that is actually built on the linguistic approach in translation studies. One of the weird claims (for me) in Gorlée's book (1994, p. 77) is that 'translation is governed by strict rules.' This claim does not agree with the notion of translation as an ill-structured, emerging process, and it is not clear how it relates to Peirce's process ontology that speaks of habits, not rules? My point with this example is that even semioticians seem to be in need of a complex-process theory of translation.

Despite my criticism that Gorlée tends to maintain a linguistic bias, she does explore some cases of intersemiotic translation. For instance, she points out that 'emotions and thought . . . are more or less translatable into spoken words, and these may be translated again into (nonverbal) outward signs' (Gorlée, 1994, p. 96). She continues by claiming that '[i]n the framework of one language-game the speech signs and the behavioural, kinetic signs are mutually translatable: usually, they convey the same message and produce meaning in an intersemiotic textual totality' (Ibid., p. 98). In both these cases, her examples of translation meet the criteria of Jakobson's intersemiotic translation, i.e. the translation of a verbal sign into a nonverbal sign and vice versa. However, I could not find examples in her work of what I would call the full scope of Peircean translation, i.e. the meaning of a sign as its translation into another system of signs. The full scope of translation should include examples of non-lingual translation, such as the intraspecific communication between acacia trees, which communicate chemically with surrounding trees when they are being browsed by kudu, or the communication between members of a pack of wolves. It could also include the communication between a lion tamer in a circus and the lions, i.e. inter-specific communication. It should also include the translation of a piece of music into a painting, or the translation of religious views into agricultural practices.

Gorlée makes a second important argument that she does not explore to its full consequences. Linking semiosis to the emergence of culture, she claims that '[t]his unlimited process of signification upon which culture hinges is called semiosis; and interpretants are called cultural units, the

verbal and nonverbal signs which together pattern our ever-changing socio-cultural life' (Gorlée, 1994, p. 100). If it is true, and I argue in the following chapters that it is, that social/cultural reality emerges from nonverbal signs (as from verbal signs), it means that we need a theory of translation that is also able to explain the translation processes concerning nonverbal signs, not only those explaining the processes concerning verbal signs. In her exploration of Peircean thought, Gorlée (Ibid., p. 103) touches upon the notion of the irrationality of signs of Firstness and Secondness. According to her, Peircean thought would imply that only signs of Thirdness are rational. I explore this matter in-depth in Chapters 6, but I need to mark this crucial point as picked up by Gorlée. One of the linguicentric assumptions of modernist Western thought is that humanity is rational, a notion that has been questioned by Freud, for one—and an honest look at world history. If we wish to study the emergence of social reality, we need methods to delve into both rationality and irrationality. In Chapter 6, I work out some initial suggestions in this regard.

As indicated earlier, Gorlée does justice to Peirce's notion of semiosis process. In particular, she rightly questions the 'rather alarmist situation' that translation entails the reproduction of meaning (Gorlée, 1994, p. 134). As an antidote to this too stable view of translation, she explores Peirce's notion of Firstness or abduction, a notion also taken up by Robinson in a number of publications (Robinson, 2015, 2016). For Peirce, Firstness is a phenomenological category of experience that entails abduction, free association, and mere awareness without thought.¹ This is the only phenomenological category that leads to radical newness; it entails the creativity of human experience. One of Gorlée's students, Hartama-Heinonen, and later Robinson, works out the implications of Firstness for (interlingual) translation in much more detail. Gorlée's treatment of this matter leaves me with two problems, though. First, despite the fact that she (and Hartama-Heinonen and Robinson) focuses on Firstness, they talk about the Firstness of interlingual translation only. Their treatment of Firstness does not take them out of the confines of linguicentric thought. Second, I am not convinced that Firstness alone can explain the fragmentary nature of interlinguistic translation. In my view, and I explore this in detail in Chapters 4 and 5, the process nature of semiosis, i.e. the underlying translational nature of the semiotic process also contributes to the fragmentary, relative, and preliminary nature of meaning. Semiosis is a process related to the Second Law of Thermodynamics, actually, negentropy, that tends toward fleeting trajectories, of which any stability is relative (in relation) to the whole of the human stream of semiosis (see also Gorlée, 1994, p. 145).

Gorlée spends a whole chapter on exploring Jakobson's use of Peirce. She points out that '[f]or Jakobson, and in contradistinction to Peirce, translation is a metalinguistic process always involving language' (Gorlée, 1994, p. 148). This is in contrast to her claim, discussed earlier, that Jakobson's notion of intersemiotic translation is moving away from a linguistic bias in

translation. Thus, according to Górlée, Jakobson remains rooted in a linguocentric view of translation, as one of the semiotic systems involved in translation has to be a natural language system (Ibid., p. 162). Nonetheless, both Jakobson and Peirce view translation as the essential feature of semiotic process (Ibid., p. 152).

I also find Górlée's (1994, p. 162) identification of iconicity and art problematic. In Peircean thought, iconicity entails much more than just art, and limiting it to art entrenches the high-culture bias that I have identified in translation studies elsewhere (Marais & Feinauer, 2017). This leads Górlée (1994, p. 165) to argue that intersemiotic translation is 'unconcerned, in and by itself, with truth and falsehood,' leading to its creative drive. She claims, furthermore, that intersemiotic translation, 'which is the most tentative and fragmentary of the three kinds of translation. . . [is] the very foundation of all translational operations' (Ibid., p. 166) and that 'informational loss must be highest in intersemiotic translation, in which semiosis shows maximum degeneracy . . . and it must be lowest in intralingual translation, where the semiosis shows maximum generacy.' To my mind, her first claim, namely that intersemiotic translation is the very foundation of all translation operations, is misguided. In Peircean thought, translation underlies all semiotic process equally. Semiosis, in all its complexity, is a process driven by translational activities, and all semiotic processes are equally translational. Her second claim, namely that intersemiotic translation is 'most tentative and fragmentary' and accounts for the highest loss in information, could be true, but only to some extent. It is true to the extent that translational processes leading to Thirdness, i.e. symbols, should theoretically lead to more information about the object, and that icons and indexes carry less information. However, as Merrell (2000a, pp. 37–55) correctly points out, different translational processes provide different types of knowledge or information, not necessarily more. Iconic and indexical signs provide information that symbolic signs cannot provide. This means that they are qualitatively of equal importance and that one should not reduce the contribution of various sign processes to rational information load only.

Another problem with Górlée's thought is that she addresses mainly problems of interlinguistic translation, which gives one a skewed image of the problems. In my view, the problem of equivalence is a relatively small problem in the Peircean scheme of things. However, prompted by its relevance in translation studies, Górlée devotes ample time to this problem (as do other semioticians who work in intersemiotic translation, such as Torop and Stecconi). One cannot but come away from reading her book thinking that her 'theory of translation' (Górlée, 1994, p. 170) is still largely, if not exclusively, a theory of interlinguistic translation (and as I indicated earlier, this impression is strengthened by Robinson's view and application of her work). In terms of terminology, she still talks about original and translation, giving temporal and logical primacy to the 'original.' However, when thinking about semiotic process, the first text is not original. It is, in itself,

the effect of semiotic process. One thus has to find radically new terminology that indicates the temporal primacy without substantializing the initial semiotic system. In my view, translation refers to the negentropic process of performing semiotic work—a process playing out in both time and space. In this process, one can distinguish, by means of abstraction, incipient sign systems that, according to various conventions, act as initiating semiotic systems from which subsequent sign systems are constructed. Neither the initiating nor the subsequent systems are final, stable, or determined. In this process, the incipient sign is only incipient at that moment or for that particular analysis. In a previous moment, it could have been subsequent. Incipience and subsequence are, therefore, historically or temporally relative to a particular moment of observation; they are patterns arising from translational processes. They are frozen for shorter or longer periods of time, but always part of an emerging process. The relationship between the incipient and subsequent sign is thus not a binary relation of equivalence, but a temporal relation of interpretive process. More about this in Chapter 5.

Gorlée raises another interesting point. She points out that, in any culture, one is able to translate an action into a series of written signs (Gorlée, 1994, p. 214). In this sense then, contracts are the reverse of intersemiotic translation, that is, one first has the written text, and then they are translated into actions. In Peircean thought, this bi-, or perhaps multi-directionality of translational processes, is perfectly possible. Interpretants, for Peirce, could be either meanings or actions or artifacts. Thus, one could translate meanings into actions or actions into meanings—or actions into artifacts. This happens in life every day. I could say, 'Please open the door,' and when someone opens the door, that action is the interpretant of my representamen ('Please open the door'). Equally, when someone closes a door, I could understand it as, 'That guy is feeling cold' or 'That woman cannot hear because of the noise outside.' The action is then the representamen and my thoughts are the interpretant. When I come to Chapter 6, discussing the emergence of social reality from semiotic processes, i.e. translations, I go into this in more detail.

Gorlée ends her book by reaffirming her conviction that Peircean semiotics opens up the space for thinking about translation in a broader way than mere interlinguistic translation. In particular, she claims that semiosis could be a paradigm for translation and that translation (with particular emphasis on interlingual translation) exemplifies semiosis (Gorlée, 1994, pp. 226–227). While the claims may hold, in general, I have to point out the remaining linguistic bias in her argument. While I do not claim that interlinguistic translation has no place in translation theory, I argue in this book that, unless we are able to construct a theory of translation that accounts for all instances of translation, we shall not be able to overcome the linguistic bias in translation studies. If we are not able to do the latter, translations studies will become increasingly irrelevant in a world that is moving in the direction of multimodal or multimedial communication, a

world that is moving away from anthropocentric views, and a world that is becoming more complex all the time. While we are in what is called the Anthropocene, we are not happily in it, because we are threatening our own extinction—and that of many ‘Others.’ Translation studies could become part of the response against anthropocentric ideas and practices, by taking a broader, biosemiotic approach.

Gorlée (1994, p. 227) does admit that she did not ‘deal systematically with nonverbal sign processes’ in her book, and that this ‘enormous undertaking’ is still needed, involving ‘the classification, organization and hierarchization . . . of the possible intersemiosis.’ I am trying to take one more step toward this ‘enormous undertaking,’ which I am also able to do only partially. She closes by concluding that

semiotranslation is a unidirectional, future-oriented, cumulative, and irreversible process, one which advances, in successive instances, toward higher rationality, complexity, coherence, clarity and determination, while progressively harmonizing chaotic, unorganized and problematic translations . . . as well as neutralizing dubious, misleading, and false ones.

(Ibid., p. 231)

I cannot be as optimistic. Entropy and negentropy are not rules, they are tendencies. Therefore, while one would assume that any translation process leads to clearer semiosis, it is equally possible that a given translation process will lead to more confusion. In this way, translation processes are, in my view, complexly based on the edge of chaos, between entropy and negentropy. Just like the effect of Per Bak’s (1996) grains of sand causing large or small avalanches could not be predicted, so the effects of translation processes cannot be predicted. Robinson (2016) also takes up the problem of cumulativity and irreversibility, but I think he also misses the point by not seeing the link between translation and the complexity of entropy and negentropy.

In a 2010 article, Gorlée (2010) harks back to Holmes’ use of the term ‘metacreation,’ which denotes a derivative literary creation that has been created based on an already existing text. I do not think that this solves the problem in full. While it is true that, as far as literary convention goes, some texts claim novelty while others, like translations, claim derivation, the semiotic process itself is always a complex interplay between novelty and derivation. As an example, one will always be able to indicate semiotic sources in even the most novel literary work, and equally, one will always be able to demonstrate novelty in even the most literal translation. At the heart of the translation problem lies not the distinction between novelty and derivation, but the realization that semiosis is a never-ending process, like metabolism, which takes form with varying degrees of stability, which is a complex blend between novelty and derivation, stability, and change, and which can be instantiated in the numerous cultural practices that occur every day.

Gorlée (2010, p. 4) takes a step in the right direction, in my view, by exploring the notion of interpreting (understanding) in its relation to translation. She concludes, in much the same vein as Lefevere did, that the translation process is similar to a number of rewriting phenomena found in everyday culture and, quoting Toury, that intersemiotic translation entails ‘the two codes being two different sign-systems, whether one of them is verbal or not’ (Ibid., p. 5). Toury’s definition clearly overcomes Jakobson’s literary bias by assuming that both systems in the translation process can be nonverbal. However, Gorlée make the same mistake as most translation studies scholars in that she tries to conceptualize interpretation and translation by considering everyday practices rather than conceptualizing translation theoretically. This means that she does not come up with a theoretically solid argument concerning the nature of translation. Maintaining some of the linguistic bias, she does explore the translation of written or verbal signs into visual, kinesic or auditive ‘languages’ (Ibid., p. 9). She calls these an ‘iconic-indexical sign event.’ Although I differ from her in many respects, among others her claim that all nonverbal codes are artistic codes (Ibid., p. 12), I think she hits the nail on the head here. Translation studies has been biased toward what is known in Peircean semiotics as symbolic signs, ignoring or rendering less important iconic and indexical signs (see Ibid., p. 18). A comprehensive theory of translation needs to be able to account for iconic and indexical signs too. Gorlée (Ibid., p. 13) argues, in line with what I am proposing in this book, that one should consider multimedia communication for a theory of translation. She points out that a variety of media are available, for example,

channels include light wave, sound-wave, biochemical, thermodynamical, electro-magnetic, and transmissive nature; the senses are acoustic, olfactory, gustatory, haptic, and optical; the modes are icons, symbols, indices, including symptoms and impulses; and there are verbal, paraverbal, nonverbal, socio-perceptive and psychophysical codes.

(Ibid., p. 13)

So, the kind of questions one needs to answer, given Gorlée’s argument, is the following: Can smell be translated into sound? How are biochemical signs translated into electro-magnetic signs? What kind of reality does translation studies construct if it never deals with the translation of touch, smell or taste? Current translation studies is not able to answer these kinds of questions.

In a recent article, Gorlée (2016) discusses the opera in terms of intersemiotic translation theory. She raises two points that are relevant to my argument. First, she claims that intersemiosis allows a libretto to ‘escape the fossilized frame of reference of “old” operas’ performed in the past (Ibid., p. 591). Now, while this is true, again, it does not help to solve the problem of translation. In a process view of semiosis, all meaning tends toward

trajectories, which become fossilized to a greater or lesser extent and which are ‘kept alive’ or maintained as a trajectory, rather than a state, by means of translation. The fossilization of semiotic forms is always relative to time and space, and, in the bigger scheme of things, no semiotic trajectory is ever fossilized forever. Even conservative religious texts, such as the Bible or the Koran, and conservative legal texts, such as constitutions, are fossilized moments in a larger trajectory that is moved forward by the never-ending translation process toward new interpretants.

The second point of interest that Gorrée raises is linked to the aforementioned but includes a complexity perspective. Gorrée (2016, p. 591) argues that ‘[i]ntersemiosis in operatic art is the transmutation of the wide spectrum of fictional possibilities in time and space, mixing translation and individual, old and new, language-and-music inside the new (or renewed) opera.’ This comes much closer to Queiroz’s (Aguiar, Atã, & Queiroz, 2015) argument, presented next, namely that a representamen is a sign that is aimed at constraining the possibilities of meaning and behavior. It does justice to semiosis as a complex, fuzzy process that cannot, per definition, copy or create *de novo*, but is part of a never-ending process of emergent trajectories. This process always consists of multiple streams of meaning, or multiple facets of meaning that are complementarily contributing to the trajectory of meaning. Thus, in a poem, the sound, rhythm, and rhyme of the words are all semiotic constraints that contribute to the overall meaning(s) of the poem, and all of these are representamens that are to be translated into new interpretants in relation to objects. This is one of the reasons why translation is a complex process: Meaning is a complex trajectory to which a multitude of factors contributes.

2.2 *Eco*

Umberto Eco is an intellectual and literary giant who needs no introduction. Of interest here are his thoughts on translation, which are expressed directly in two relatively short books (Eco, 2001, 2004) and indirectly in a third, much longer book (Eco, 1997, see Deely’s 2001 references to Eco’s work in this regard).

It is not clear to me whether Umberto Eco’s thinking on translation should be categorized under translation studies, or under semiotics, because he wrote about both. However, because complexity thinking (Marais, 2014, 2019) would argue that disciplinary distinctions do not do justice to the complexity of reality (Morin, 2008; Nicolescu, 2008), making a clear-cut decision on this matter seems irrelevant. Therefore, I start with a discussion of his *Experiences in Translation* (Eco, 2001). In contrast to Bassnett, Eco (Ibid., p. 67) calls Jakobson’s category of intersemiotic translation ‘the most innovative feature of his proposal.’ Note that Eco follows Jakobson to the letter, conceptualizing intersemiotic translation as taking place between a verbal sign system and a nonverbal one, with the verbal one seemingly

having historical precedence. Eco does not, for instance, discuss the possibility of translating nonverbal systems into verbal systems.

Eco proceeds to problematize Jakobson on a number of counts. He (Eco, 2001, p. 67) correctly points out that, should rewording be taken as a metaphor, rewording also takes place in non-linguistic media, such as music. I think that Eco struck a vital chord in the debate on translation with this discussion and that is that semiotic processes can be replicated in and between any semiotic systems, as I indicated in my discussion about Lefevere in Chapter 2. It means, furthermore, that the distinction between inter-systemic and intra-systemic translation is, thus, a relative one, calling attention to the problem of hierarchical thinking, to which I return in Chapter 5. Suffice it to say here that Jakobson's classification of translation into three types is done from a particular perspective and level of analysis. From a higher level of analysis, all forms of translation are intersemiotic, i.e. between semiotic systems, even though it may be the same semiotic systems.

Next, Eco (2001, p. 67) takes Jakobson to task about failing to provide examples of other forms of intersemiotic translation, limiting his conceptualization to the type 'verbal to nonverbal systems.' He correctly argues that Jakobson should have added types in the opposite direction, i.e. 'nonverbal to verbal,' such as in ekphrasis, but also many other types of translation between, for example, painting and music. The relevance of Eco's view for my argument is that Eco confirms that Peirce's notion of translation, in principle, accounts for the translation of any semiotic system into any other semiotic system.

The third point on which Eco (2001, pp. 68–132) debates with Jakobson is Jakobson's apparent lack of clarity between the terms interpretation and translation. I think that Eco is correct in arguing that Jakobson, and for that matter, Peirce, did not assume synonymy between the terms translation and interpretation. I differ from Eco, however, in his understanding that Peirce used the term 'translation' in a figurative sense, as *pars pro toto* (Ibid., p. 69). So, whereas Eco argues that the term 'translation' is a metaphor for Peirce, and that one should interpret it as a metaphor and not turn it into a technical term (Ibid., p. 73), I have argued elsewhere (Marais & Kull, 2016) that Peirce's use of the term 'translation' could indeed be taken as a technical term, referring to the process nature of semiosis. Even if Peirce's intention is debatable, nothing stops me from turning the term 'translation' into a technical term based on Peirce's thought. I shall go into more detail about this problem in Chapter 4, but I need to point out here that neither Jakobson nor Eco seems to have understood or expressed semiosis as a process driven by the linking action of translation in order to create interpretants. Eco's thinking remains highly prescriptive, distinguishing between a summary and a translation of the *Divine Comedy*, for instance. In my view, Peirce operated at a much more abstract level of thinking when he argued that all efforts at interpretation, which is the outcome of the semiotic process, are driven by the linking or relationship-building process of translation that underlies the semiotic process.

In my view, Eco (2001, pp. 74–75) falls into the same trap as Toury when he uses the dictionary definition of translation to conceptualize a technical definition of translation.² By limiting his understanding of translation to the notion of interlingual translation (*Ibid.*, p. 76), he cannot but define interpretation as the larger category and translation as the narrower one. In Chapter 4, I argue that interpretation and translation are two different aspects of semiosis and that neither need be a subcategory of the other. As an aside, Pym reviewed Eco's book in 2003 and claimed that Eco does not 'contribute substantially' to translation studies, and that Eco's work 'could even stand as a tombstone to the institutional failure of semiotics as a discipline' (Pym, 2003, p. 5). With this review, Pym, at that point in history, with one mighty sweep, dismisses the influence that semiotics could have had in translation studies, without giving a single reason. The fact that Eco's views on translation may be problematic does not necessarily render the whole of semiotics 'an institutional failure.' In this endeavor, Pym is as responsible as Eco for perpetuating the linguistic bias in translation studies, while criticizing Eco for maintaining the view that translation studies should focus on translation proper. Furthermore, the examples that I provided in the introductory chapter prove that Pym was, perhaps understandably, wrong in 2003. Semiotics seems to be a growing field of interest, and intersemiotic translation is threatening to subsume translation studies.

In *Mouse or Rat*, Eco (2004, p. 125) takes up the point concerning the difference between translation and interpretation again, referring to Gadamer, who would have said that every translator is an interpreter. Eco then argues that not every interpreter is a translator. He also quotes Steiner, to whom I have already referred, who argues that translation either refers to all meaning making or is restricted to interlingual meaning making only (*Ibid.*, p. 125). Steiner opts for the first possibility and Eco for the second. It becomes clear that Eco's interpretation of Peirce is biased, because Eco assumes translation to refer to interlinguistic translation and then has problems fitting Peirce's conceptualization into his. For instance, he argues that, when someone who does not understand a play laughs when the rest of the audience laughs, that person has created an interpretant, but that interpretant is not a translation. He then adds, 'At least not in the proper sense of the word' (*Ibid.*, p. 127). I assume that by 'proper sense of the word,' Eco refers to translation proper (i.e. interlingual translation), and he argues that interlingual translation is the only proper meaning of the word translation. In any case, Eco seems to have assumed a particular notion of translation and was trying to fit Peirce into his conceptualization. However, the Peircean conceptualization is both powerful and wide-ranging and other conceptualizations should be made to fit it, not the other way around. The problem with this choice is that, while limiting 'translation' to interlingual translation is a logically legitimate choice, it is a limiting one. It means that translation studies, if it follows its own conceptualization to the letter, will never be able to study subtitling, because subtitling entails some

intersemiotic translation, not only interlinguistic translation. In the same way, translation studies limited to interlinguistic translation will be, increasingly, unable to study multimodal communication in digital platforms because of its self-limiting definition.

To me, Eco's biggest contribution to translation studies, which he would probably not have recognized or have acknowledged as such, is his work *Kant and the Platypus* (Eco, 1997). In particular, I refer to Chapter 2, in which he writes engagingly about the way the platypus was semiotized through what Latour (2007) would call a translation process and what Deely (2009b) works out in detail as a translation process in his theory of semiotic realism. In *Kant and the Platypus*, Eco (1997) explores, among other things, the ways new information from the natural world is 'semiotized,' that is, how it is translated into cognitive systems of meaning. As example, he refers to the first encounters between humans and the platypus in Australia in the 19th century. In a gripping narrative, he explains how, when human beings are confronted with the unknown, they categorize and narrativize, first, in categories that are known to them, and then, as the data contradicts the existing categories, they create new categories with which to understand the new data. The point for the current debate is that information from the environment and categories of thought are 'woven in the fabric of experience,' as Deely (2007, p. 119) calls it, thereby giving precedence to neither realism nor idealism. In Peircean terms, this process of knowledge formation entails that an object determines a representamen, which determines an interpretant, so that the interpretant is related to the object. In this way, what was 'outside' of consciousness becomes part of consciousness, becomes knowledge.

Let me be clear: Eco never calls this process 'translation.' Deely, however, does, and so do I. This process is, perhaps, the most basic form of translation, because it occurs in all living organisms. Relating to the 'outside' 'real' world can only be done through a semiotic process, i.e. translation, by relating an unknown object to an interpretant by means of a representamen. I shall work out the implications of this in detail in Chapters 5 and 6.

2.3 Petrilli

Susan Petrilli is another pioneer of intersemiotic translation. In this overview, I attend to her edited book, *Translation* (2003a), as well as her own work in a number of articles.

Like Umberto Eco (2001, 2004), Petrilli (2015, p. 96) deals with the relationship between semiosis, translation and interpretation, and claims that semiotics and translation studies study 'the same process, albeit from different perspectives,' or 'to translate is to interpret' (Petrilli, 2003b, p. 17). She also argues that semiotics and translations are interpretants of each other and that they throw light on different aspects of the process of creating meaning, but she does not clarify, in my mind at least, what the differences are. She says (Petrilli, 2015, p. 96):

Considering that interpretation is translation, that the relation between interpreted sign and interpretant sign is a translation relation, that interpretants defer each other in open-ended semiosis chains, global semiotics evidences the translational nature of semiosis, therefore the translational vocation of semiotics.

She also claims that semiotics and translation studies study the same process and that semiotics entails a process ‘where interpretation means translation, translation from one sign into another sign, its interpretant’ (Ibid., p. 97). Referring to Peirce, she correctly argues that every interpretant adds something to the process of semiosis. Like with Eco, I do not find Petrilli’s arguments about the relationship between semiotics, translation, and interpretation convincing. In my view, one has to either remain in the domain of language for general purposes and call semiotics, translation, and interpretation synonyms that all refer to the process of creating meaning, or one has to assign technical meanings to these terms within the field of translation studies. I opt for the latter.

Despite my reservations about her definitions, Petrilli’s work adds valuable insights for translation studies, insights that have, unfortunately, been ignored by most translation-studies scholars. She clearly points out how anthropocentrism and glottocentrism cannot hold in the face of the findings of semiotics (Petrilli, 2015, p. 98), and that turning to language as a model for all semiotic processes is inherently a fallacy. She goes as far as calling anthropocentrism and glottocentrism arrogant, an arrogance that ignores the fact that ‘verbal signs constitute only a tiny sector of the signs on our planet’ (Ibid.). In what follows in this book, I build on this argument and argue that translation studies seriously need to rethink its anthropocentric and glottocentric biases.

Like all Peirceans, Petrilli acknowledges the process nature of semiosis. She puts it succinctly: ‘In this sense the sign is in translation’ (Petrilli, 2015, p. 98). Semiosis is akin to metabolism. The moment it stops, it is dead. What we experience as ‘signs’ are processes that have been materialized for a moment, that have taken some trajectory, or that have been codified in relatively stable material forms, such as written texts. These forms are, however, processual forms, such as the way an eddy in a stream is a form, but the form that a process takes. In this sense, a sign is always in translation, in process, in the process of being translated into a further sign. A ‘source text’ is a form in a semiotic process, as is a ‘target text.’

The aforementioned means that interlinguistic translation is a subcategory of translation, and it is neither the only one nor a unique one (Petrilli, 2015, p. 99). A theory of translation, in contradistinction to a theory of interlinguistic translation, should thus be conceptualized in such a way that it provides for all instances of translation. This means that translation studies, which developed out of an interest in interlinguistic translation and has been held hostage by that interest, needs to reconsider its interests. It could

obviously remain a very narrow field that deals with interlinguistic translation only, if it wants to, but that would have two dire consequences. On the one hand, it would mean that much of what is being studied as translation will be done outside the field of translation studies, rendering translation studies a scholarly anomaly. On the other hand, even if translation studies was to be successful as a limited field of study, it would soon find itself facing problems again, as multimodal communication is taking over the world of communication. The moment translation studies scholars realize this, they will have to rethink the ambit of their chosen linguicentric interest anyway (Orrego Carmona, 2017).

Like Gorlée, Petrilli (2015, p. 100) argues that similarity is central to translation. To some extent, both of them are correct, but they are also both wrong. The process of translation does in no way presuppose either similarity or difference, but rather maintains both in a paradoxical relationship that differs from case to case. I would argue further that, for translation referring to the process of semiosis, the issue is not similarity or change, but the trajectories that emerge from translation processes. In this conceptualization, one does not only get rid of the binary of similarity and change, substituting the binary with a complex array of possible trajectories that a translation process can take. This conceptualization also has the additional benefit that one is not forced to fixate on either similarity or change, comparing ‘somewhat stable’ source and target texts, instead, one can observe how the process of semiosis unfolds in a complex weaving of similarity and change in translation. In the no sign process, the interpretant can be exactly the same as the representamen, but in the no-sign process, the interpretant cannot be absolutely different from the representamen either. Thus, translation can, in principle, not lead to either absolute novelty or exact copying.

I am, furthermore, not convinced by Petrilli’s (2003b, p. 19) distinction between intersemiotic and endosemiotic translation—the first would be between sign systems and the second would be within a sign system. I think it would be conceptually easier to talk about inter-systemic translation in all cases, because systems thinking allows for perceiving systems within systems. As I argue in Chapter 5, the term intersemiotic translation does not make sense either, because all translation is between semiotic systems anyway. So, one could talk about interlinguistic translation between Sesotho and isiXhosa as intersemiotic translation, taking each language as a semiotic system. However, interlinguistic translation between Sesotho and isiXhosa could also be endosemiotic translation, if one considers the systemic fact that both are languages and that the translation, therefore, takes place within the semiotic system of natural human languages. The distinction between inter and endo, when it comes to systemic thinking, therefore, does not hold universally, but has to be ascertained in each case, which renders it somewhat superfluous.

Petrilli (2003c, p. 42) also tends to use interlinguistic examples when writing about intersemiotic translation. To me, this is a sign of a linguicentric

bias that remains in many scholars of intersemiotic translation. For example, Petrilli (2003b, p. 24) argues that translation entails an iconic relationship to the original. To answer what she means by 'translation,' I read further, to where she says, 'What is translated is utterances, not sentences, i.e. concrete . . . saying' (Ibid., p. 25). Elsewhere she says, 'The metalinguistic ability of human language allows for translatability' (Ibid., p. 28). She does not indicate that these arguments pertain to interlinguistic translation only; rather, they are examples of 'translation.' This kind of linguistic bias needs to be reconceptualized, so that we can have a theory of translation that is able to account for all instances of translation. It will help us to be clear, in theory and in the examples we use, that intra and interlinguistic translation are but two instances of the larger category of translation. I do not deny that both Gorlée and Petrilli claim exactly this about the limited nature of interlinguistic translation. I am questioning whether their examples do not belie their theoretical argument, leading to the continuation of the linguistic bias in translation studies.

Petrilli's book (2003a) contains a wide variety of contributions on different forms of intersemiotic translation, some of which I briefly review here with the aim of pointing out that much of the debate about intersemiotic translation is still biased toward language, or models itself on interlinguistic translation. In their contributions, Brisset (2003), Ponzio (2003) and Ulrich (2003) all still assume that translation means 'interlinguistic translation.' Ruthrof (2003, p. 77) also deals with interlinguistic translation, but his conceptualization of interlinguistic translation is much more complex. He argues that corporeal semantics require us to consider both verbal and nonverbal signs. In fact, he grounds verbal meaning in nonverbal meaning, correctly pointing out that there is no such thing as pure verbal meaning. The theoretical basis for this claim is the Peircean notion that all signs, no matter how developed, maintain something of their iconicity and indexicality and are, therefore, not only rational and logical but also non-rational and material (Ibid., p. 82). In his contribution, Merrell (2003b) expands on this point, by claiming that, for human beings, meaning is constructed in the interplay between words and extralinguistic signs (Ibid., p. 180) and that translation is not a purely logical activity, but done 'by her who feels, senses, intuitus' (Ibid., p. 182). As I demonstrate in detail in Chapters 4 and 5, Merrell correctly argues that translation does not take place at the level of the conscious, the rational and the verbal only, but also at the level of the unconscious, the irrational and the nonverbal. Indeed, I go further and claim that the process through which objects are known by means of signs is also a translation process, linking the physical and the virtual by means of semiosis, as Deely (2001, 2009b) claims.

Colapietro (2003) uses the Peircean notion of pragmatism to enlarge the notion of translation in line with the discussion in the previous paragraph. For him, pragmatism means that signs are translated into actions (Ibid., p. 189). The way to provide a clear meaning for a sign is to act it out (Ibid.).

In this sense, he sees translation, in contrast to semiosis, as the ability to limit error (Ibid., p. 197). Although it is true that Peirce conceptualized the translation process as leading to a better-conceptualized sign, I do not agree with this optimistic view of translation. Theoretically speaking, there is no reason why a translation should lead to more clarity on the meaning of a sign, to a better understanding of the sign, to a more precise understanding of the sign. Translation is semiotic process, and there is no way to predict the outcome of this process. It could lead to more clarity, but it could also cause confusion. Even acting out a sign, though possible, does not guarantee greater clarity of meaning. What Colapietro does make clear, though, is that semiosis entails a translation process from which no living organism can escape. In his words, '[t]o peel of the layers of interpretants in order to discover the essential kernel of a meaning . . . is to tear off the leaves of an onion in order to expose the onion itself' (Ibid., p. 206).

In their contribution, Goethals et al. (2003, p. 255) raise the problem of multilayered or multimodal communication like that found, in their example, in comic books. Translation studies has largely ignored multimodality, except for subtitling and some very recent articles, which I discuss later in this chapter. The point is that, even in written texts, multimodality has become the norm rather than the exception, and all modes of production work together to create the meaning of the text. This means that the reader has to be able to translate the meaning from multiple modes and integrate those in order to understand a multimodal text. Goethals et al. (Ibid., p. 257), for instance, argue that the rules of perspective, in visual art, are abstractions, i.e. signs of space that need to be interpreted. A painting is, thus, a multimodal artifact, representing by means of (at least) the modalities of space, color, texture, proportion, and perspective. They emphasize, as both Gorrée and Petrilli do, that semiosis is about processes of creating relationships, in this case, by relating space, color, texture, proportion, and perspective.

Some of the dialogue in Petrilli's book also includes scholars from the natural sciences. In a co-authored chapter, Kull and Torop (2003, p. 315) raise the issue of non-human communication. They argue that 'conversation with nature' has to be conceptualized in a non-metaphoric way, which means that one has to be able to prove that there are signs besides human ones, that it is possible to understand these signs and that it is possible to restore these signs. In their view, then, all living organisms translate. They argue that conscious translation, i.e. eustranslation, has to assume the existence of unconscious translation, i.e. biotranslation. With this argument, they introduce the whole scope of translation that does not include human beings, a point that virtually no translation-studies scholar has attended to (Marais, 2017; Marais & Kull, 2016). Salthe (2003, p. 291) throws light on this matter from another angle, claiming that semiosis is always a 'material process of development'³ and that it intersects the internal meaning-making processes in human beings. At base, translation is, thus, a process of integrating the material and the sentient, virtual worlds (Ibid., p. 285). Yates (2003, p. 303)

adds perhaps the most basic translation problem to the agenda, namely the translation of digital information in DNA into analogue information for the operation of a cell. Cariani (2003, p. 350) also links translation with 'broader epistemic processes that occur in the world at large.' In his view, '[s]ystems that can adaptively adjust internal relations between signs are capable of creating meaning for themselves' (Ibid., p. 354).

The contributions in the previous paragraph show that much more thinking has been done about the semiotic nature of translation outside of translation studies than inside translation studies. I am concerned that translation studies has actually lost its claim to studying 'translation,' because it has limited itself to interlinguistic translation. Petrilli's and her collaborators' contributions, which have, once again, been largely ignored by translation studies (see, for instance, Tymoczko's (2007) attempt to 'enlarge translation studies'), challenge translation-studies scholars to, once and for all, get rid of some of its central biases, namely linguicism and anthropocentrism.

2.4 *Torop*

Peeter Torop is another pioneer of thinking on intersemiotic translation, producing a significant number of articles on the topic over the past 20 years. Steeped in Lotmanian thought, his main interest is culture and showing how culture emerges out of translational activities. In a 1997 article, Torop (1997, p. 23) argues that translation studies does not have clarity concerning its object of study, a position that he and Sütiste repeated in somewhat different form when they claimed, years later, that the pure theoretical aspect of translation studies as foreseen by Holmes is still very weak (Sütiste & Torop, 2005, p. 192).

His initial efforts to address this problem entail expanding the notion of translation to include all aspects of culture, not only interlinguistic translation, and he calls this kind of translation 'total translation' (Torop, 1997, p. 25, 2002, p. 593). He, furthermore, identifies four types of translation, namely textual translation (translating one complete text into another), metatextual translation (translating a whole text into a culture), intra- and intertextual translation (referring to the fact that there are no pure texts in a culture), and extratextual translation (translating text in natural language into verbal or nonverbal texts) (Torop, 1997, pp. 27–28). I do not find his categories convincing, but as they do not really form part of my argument, I do attempt a detailed critique. Rather, what is relevant for my argument is the theoretical point that culture in its totality is the result of translation processes of various natures, a point that I take up and work out in Chapters 4 and 5. As with Gorlée and Petrilli, however, I still find linguistic bias in Torop, as seen in his dependence on Hjelmlev and Catford (Ibid., p. 25; see also 2001, p. 47). What we need to understand is not how translation is like language, but how nonverbal translation is not like verbal translation. In other words, we need to have a broad-ranging theory of translation

in which all types of translation can be compared for both similarity and difference.

Torop (1997, p. 30) puts forward a nuanced argument about the complexity of translation, even at the level of linguistic texts, when he points out that coherence in translation is not only achieved at the linguistic level, but also at a visual level. This realization that even written texts entail more semiotic dimensions than merely the linguistic is later expanded into the crucial notion of multimediality (Ojamaa & Torop, 2015; Sütiste & Torop, 2005), which is posing crucial questions to a translation studies that wishes to limit its scope to interlingual translation. Torop seems to be arguing that any communication functions through multiple semiotic systems simultaneously. Translation that is sensitive to more than language should, thus, be sensitive to these multiple systems and translate them too. Thus, although Torop, at least in this 1997 article, seems to be talking mostly about interlinguistic translation, he does expand it semiotically to claim that even interlinguistic translation does not take place at the level of language only. Communication is always complexly semiotic. However, though he clearly moves in the right direction, he does not go far enough.

Torop (2000) affirms the broadening scope of translation, from its interest in language to its interest in culture in a next article (see also Torop, 2001, p. 46, 2012). This article suffers from the same problem that I find with most semioticians writing about semiotranslation, namely that their examples are mainly from the domain of interlinguistic translation. This creates the impression that, though they have made a theoretical leap in their thinking about translation, they are, at heart, still influenced by a linguistic bias (see also Torop, 2005, p. 167). A 2007 article (Torop, 2007) strengthens my suspicion that Torop is actually interested in studying interlinguistic translation from a semiotic perspective, an endeavor that is not only legitimate, but also desirable, yet limiting. It is only part of the move that is needed to extend translation studies to its full potential. In Torop's case, it seems that he assumes that translation is interlinguistic translation, which needs to be expanded with a semiotic perspective.

In Torop's view (2002, p. 593), translation studies is trying to solve the same problem as cultural studies (see also Leone, 2014, 2015). By referring to Jakobson's and Toury's conceptualizations of translation, in particular the distinctions between intra and intersemiotic translation, he argues that the issue of culture is an issue of thinking (Torop, 2005, p. 164), which requires translation in order for the thinking to be shared. In a 2008 article, Torop (2008, p. 375) develops his views on semiosis further as the 'stuff' from which culture emerges when he makes the following claim: 'The universality of translation comes from its connections with thought processes.' Peirce had claimed, and John Deely (2001, 2009b) had worked out in detail, the argument that thinking is in signs and that knowledge creation is a semiotic process. I return to this in detail in Chapters 4 and 5, but the point here is that Torop correctly points out that translations within minds

and between minds are the links that are needed for culture to emerge. For this claim to hold, translation needs to be conceptualized of as more than interlinguistic translation. However, he remains caught up within a linguistic bias, even in this article, when he talks about the role of translators in a culture as well as the functions of language (Torop, 2008, pp. 380–382). In this sense, his thinking is closer to that of John Searle than to Peirce. Torop takes on this topic again in an article published in 2010, where he argues that ‘translation is the creation of a language of mediation between various cultures’ (Torop & Osimo, 2010). In an insightful discussion, he points out that translation assumes one of two movements, i.e. space or time. In traditional translation studies, the movement of translation is mostly conceptualized as a spatial movement. Torop and Osimo (2010, p. 387), using Peircean process thinking, however, argue that thinking is a process of translation based on time difference, namely that a subsequent thought is derived from an incipient thought in a never-ending process.

Writing in 2014, Torop (2014, p. 2) takes up the theme of the emergence of culture again, arguing that semiotics studies culture as ‘the product of interacting human minds . . . the most complex phenomenon on Earth.’ To study this process, one needs to study mediated communication (Ibid., p. 6). Here I need to add Deely’s (2001) point concerning communication, namely that the ‘essence’ of the postmodernist era is not that everything is relative, but that communication is constitutive of human existence. In this sense, Deely argues, semiotics is a more fundamental discipline than philosophy, because philosophy mainly deals with human rationality, while semiotics deals with human beings as constituted by meaning making and meaning-taking, i.e. communication. Torop (2014, p. 10) uses this argument to point out, most importantly, that what he calls ‘cultural sociology’ is not limited to specialized social or cultural systems, but entails an ‘analytic perspective on any social arena.’ For translations studies, I (Marais & Feinauer, 2017) have tried to make this argument, in line with some suggestions by Tymoczko (2006), about the biases in translation studies. The kind of semiotic theory of translation that is needed is exactly the kind that Torop suggests: a theory that is able to study any and all semiotic process.

In two co-authored articles, first Sütiste and Torop (2005) and then Ojamaa and Torop (2015) discuss the implications that the technological advances toward multimodality entail for translation studies (see also Torop, 2013). Sütiste and Torop (2005, p. 188) claim the following:

A written text on paper or in hyper- or multimedia form may be the same text, but its interpretation as an original text or as a translation requires taking into account the nature of the medium in which it is presented.

This argument renders central the materiality of the representamen in the semiotic process. Technological advances made us aware of the multiple

modalities or mediums (see the section on multimodality/multimediality for a detailed discussion), but as I have pointed out earlier, even a seemingly monomedial text, such as a novel (without any illustrations), entails some form of multimodality, if only in the way words and paragraphs are separated by space. Quoting Purchase and Herman, Sütiste and Torop (*Ibid.*, p. 188) refer to developments in multimedia/multimodal studies that show how different media or modes exploit different affordances and constraints and assume translation processes to transform them into sets of meaning. In my view, multimodality is one of the key factors that suggests that an interlinguistic theory of translation is not sufficient to explain translational phenomena and processes in the 21st century. The other is the developments in biosemiotics, to which I return in Chapter 4.

Unfortunately, I do still find Sütiste and Torop's argument biased toward either interlinguistic translation or the problems raised by interlinguistic translation. This becomes evident when they quote Chesterman and Arrojo, who argued that the question, 'What is a translation?' is linked to the question 'What is a good translation?' (Sütiste & Torop, 2005, p. 193). They also raise issues about the 'semiotic fidelity' of the translation to the original (*Ibid.*, p. 195). In my view, translation studies first needs to conceptualize translation as a semiotic process. It has to tease out what this process entails qua process. Only then can it start exploring the details of the process, which are related to culturally and genre-laden values, such as 'good translation' and 'fidelity.' Translation is a process of creating interpretants in relationships to representamens and objects. The nature of these relationships entails the affordances and constraints on the translation process, and these relationships differ from case to case. This means that one cannot have a general theory of a 'good' translation. For example, the nature of 'good' in the translation of agricultural theory into agricultural practice will differ, not only from agricultural context to agricultural context, but also from what is 'good' in literary translation. Time and space, as reified in cultural conventions, will determine the nature of 'good' and 'fidelity,' but we first need to understand the nature of the process of translation as instanced in all phenomena, before we can start generalizing particular values—should these be needed at all.

Sütiste and Torop (2005, pp. 197–198), to my mind, fail on another point. In their exploration of a conceptualization of translation, they follow Toury, who argues that translating is a process that takes place across systemic borders. Now, in order to make this argument, one has to assume systems and one has to assume actions that mediate between those systems. On the one hand, this is indeed true. Translations are able to mediate between systems, as Tyulenev (2012) has shown using Luhmann. However, this is, again, falling back on the somewhat static thinking that underlies interlinguistic translation and some versions of systems thinking. Seen as a process, translation is as much creating systems of meaning as interacting between them. The aim of the translation process in the Peircean triad is not only mediation, but creation too.

Writing with Ojamaa, Torop (Ojamaa & Torop, 2015) again takes up the matter of the multiplicity of the sign systems that constitute culture. In particular, they refer to transmediality, particularly in the pedagogical domain. Transmediation in this context refers to the way in which content, in particular in educational textbooks, is translated across mediums (Ibid., p. 63; Kress, 2010). In their own words, '[t]ransmedial repetition thus bears an important mnemonic function, but it is simultaneously a device of creative expansion' (Ibid.). This resonates with work done in orality studies that pointed out long ago that various semiotic devices, including rhythmic movement, play both a mnemonic and creative role in oral cultures (Jousse, 2000). In a typically ecological approach, Ojamaa and Torop (Ibid., p. 63) claim that the more diverse the media in a text, the bigger the chances for that text to survive. However, their definition of translation as 'essentially repetition with variation' (Ibid.) is too narrow. Translation is 'essentially' semiotic process that can take a variety of trajectories, from near repetition to seemingly free creation, but with neither repetition nor creation being preferred or absolute.

In the 2008 article to which I referred earlier, Torop introduces a crucial concept, namely cultural negentropy. In his view, and I agree, translation is the process that counters cultural entropy, thus, translation is a negentropic force in culture (Torop, 2008, p. 387; see also Salthe, 1993 on infodynamics). Quoting Cronin, Torop argues that this 'negentropic translational perspective' is the source of cultural diversity, because it is the origin of new cultural forms. I cannot agree more with Torop on this point. However, I do need to point out, once again, that the translational work done in society and culture is not limited to linguistic translational work. It also, and perhaps dominantly, includes non-linguistic, i.e. semiotic, negentropic work. I worked out some of this in an article on complexity (Marais, 2019) and return to it later. Suffice it to point out here that, through translation and the constraints of this process, semiotic processes take particular trajectories, the aim of which is the creation of cultural forms. As argued in my article on complexity, forms are to be seen as temporary tendencies in meaning that are instantiated in material of differing durability. Compare, for instance, spoken language to a building built of steel.

In his 2014 article, Torop (2014, p. 14) argues that culture, like translation, is relational. Deely (2007) argues that relationality is at the heart of semiotics and, thus, I argue, at the heart of translation. Translation is the process of constructing complex semiotic relationships between living organisms and nature, between living organisms and other living organisms and between living organisms and artifact. However, one has to be careful of how one thinks about relationships. Torop (2014, p. 14) remains within the binary translation-studies thinking of relations between sources and targets, providing a rather static view of translational process, despite his own criticism against static assumptions (Ibid., p. 12). This is real a problem in translation studies, one that I think can only be solved by supplanting the

translation-studies binary with a Peircean processual triad, as I try to do in Chapter 5.

A last comment about Torop is needed. In line with his tradition, Torop (2014) uses the word ‘text’ to refer to cultural artifacts of various natures. Despite the fact that this practice has become common in cultural studies, I choose to talk about ‘semiotic systems’ rather than texts. One of the main aims of this book is to argue against the linguistic bias in translation studies, and one of the problems with this bias is that language is used as a model or metaphor for the rest of culture. With the use of this metaphor, culture tends to be reduced to language. In order to escape this bias, it is important for my argument to resist such modeling, even though good arguments could be made in favor of it. The term ‘systems’ allows me this opportunity.

2.5 *Kourdis*

Over the past decade, Evangelos Kourdis produced a number of articles on various aspects of intersemiotic translation that are of importance for the debate. The earliest article I could find is from 2009. In this article, Kourdis (2009a, p. 114) argues for a social semiotics based on an earlier argument made by Greimas. Arguing that culture is constructed by ‘the universe of signification,’ Kourdis (2009a, see also Lotman, 1990, 2005) takes up Lefevere’s argument that ideology dominates linguistics or poetics in translation processes. Kourdis (2009a, p. 119) also refers to Bassnett’s claim that translation is more closely associated to semiotics than linguistics. Kourdis’ work, read together with that of semioticians such as Greimas and Lotman (and others), puts social semiotics on the agenda for translation studies, despite the fact that both Lefevere and Bassnett (and their contemporaries) seem to be referring to interlinguistic translation when they talk about ‘translation.’

Kourdis and Zafiri (2010, p. 119) approach from the angle of language teaching when they discuss intersemiotic translation. Arguing from a European perspective, they point out that translation is one of a set of linguistic activities (note the linguistic bias) that should be developed in language teaching. However, they point out (*Ibid.*, pp. 122–123, also see Kourdis, 2009b) that, in both conventional written texts and in modern multimodal texts, iconicity plays a role in the meaning of the text. Referring to the work of Kress, to which I return later in this chapter, they argue correctly that modern technology forces us to think, not in terms of mode, but in terms of modalities, and also to consider, not only form, but form and meaning (Kourdis & Zafiri, 2010, p. 126). The multiplicity of modes in modern writing requires the ability to translate between the modes in order to relate their meanings to one another and to determine how they reinforce the meaning of the text (*Ibid.*, p. 127). In modern communication, intersemiosis has become the norm, to the extent that it has become difficult to distinguish between words and images (Kourdis & Yoka, 2012, p. 172).

In a seminal article published in 2012, Kourdis and Yoka (2012) work out some of the key notions in a semiotic theory of translation. They point out correctly that Jakobson is seen as the starting point for thinking on this matter (though they do not mention Jakobson's dependence on Peirce) and they, equally correctly, point out that Jakobson's views need to be broadened to include translations between non-linguistic semiotic systems (Ibid., p. 162; Kourdis, 2009b). This broadening is necessary because the registers in modern-day communication are both pictorial and linguistic (Kourdis & Yoka, 2012, see also Yoka & Kourdis, 2014; Kourdis, 2014)). After analyzing a number of advertisements, Kourdis (2009a, p. 114) concludes that 'the role of interlingual translation seems to be complementary to other semiotic systems, and not the most influential.' In another article, Kourdis and Damaskinidis (2016) problematize a linguicentric approach to translation by analyzing caricatures as multisemiotic texts. In this regard, a recent MA dissertation (Malan, 2017) draws similar conclusions, and Danesi (2017) argues that emoji is a form of rebus writing that assumes a non-linear, multimodal process of making meaning. Both of these works support Kourdis and Damaskinidis' claims about multisemiotic communication. This process of relativizing the role of language in modern communication should be accounted for in a new theory of translation. I should add that this view is still too anthropocentric for my liking. It needs to be supplemented with a biosemiotic view of translation, but Kourdis and his associates have at least this part of the argument right. Language, they argue, is not the only semiotic system that carries meaning, and there are types of meaning that cannot be carried by language (Ibid., 163). This opens the debate whether human beings could create meaning without language. Kourdis and Yoka (Ibid., 164) point out that neither Jakobson nor Greimas could envisage this; even Petrilli seems to be caught up within a linguistic bias, as I argue earlier. In response to these views, Kourdis and Yoka (Ibid., pp. 167–169) present evidence from writing, media theory, perception theory, developmental psychology and cultural history that 'we can indeed communicate with signs that are not linguistic.' I contribute to this argument in Chapter 6, claiming that the Peircean notion of degenerate signs in theory creates this possibility, too. The crucial point that Kourdis and Yoka put on the table is the following (and is a point of no return for translation studies). If human beings (to say nothing of other kinds of living organisms) are able to create meaning with signs other than linguistic signs, the theory of translation that accounts for the creation of this meaning cannot be limited to a theory of interlinguistic translation. Most translation-studies scholars would agree that we have moved away from linguistic theories of translation, to cultural theories of translation, social theories of translation, and power theories of translation. What I want to point out is that this moving away from linguistic theories of translation has not been as clean as translation-studies scholars think. We have, indeed, developed cultural theories of translation, but these are often cultural theories of interlinguistic translation. We have, indeed, developed

social theories of translation, but these have often been social theories of interlinguistic translation. What we need is a theory of translation that is broad enough to be called a theory of cultural translation, a theory of social translation, a theory of power translation, because, as Lefevere realized long ago, from the perspective of semiotics, one can demonstrate that culture, society, power, etc. are all caused by similar processes, i.e. translations.

In a 2013 article, Kourdis (2013, p. 101) makes a claim that is worth quoting in full:

However, in my view, not even interlingual translation can be as successful as intersemiotic translation, since the former requires knowledge of a lingual system other than the mother tongue, whereas the latter presupposes cultural knowledge, which can be much more easily acquired.

Whether his claim that cultural knowledge is more easily acquired than language knowledge holds or not, he has placed on the agenda the notion of the complexity of communication, a point made in detail by Merrell (1998, 2000a, 2003a) and to which I return in detail in the next chapters. The point is, as Merrell has made abundantly clear, that symbolic communication, i.e. linguistic communication, is inherently linked to and presupposes iconic and indexical communication. In other words, language does not operate at the level of the symbolic only. Even symbols contain remnants of iconicity and indexicality, such as the sound of words, the tone of voice, the body language that accompanies it. If this thesis holds, and Kourdis, Merrell, and Peirce have all argued convincingly that it does, it means that even interlinguistic translation has to account for translation at the level of iconicity and indexicality, which means that ‘translation’ can never be interlinguistic translation only. It has to be semiotic through and through.

In this 2013 article, Kourdis picks up another crucial point. He (Kourdis, 2013, p. 112) quotes Johansen and Larsen, who argue that translation is, at base, the process through which knowledge is created, because this is the way sensorial information is translated into knowledge, which knowledge is culturally determined. As indicated earlier, this very basic semiotic function, performed through processes of translation, has been on the agenda of semiotics for centuries, as Deely (2001) points out. It is crucial that we expand the notion of translation to include the semiotic processes through which living organisms relate to their environment through their species-specific senses and by which this sensorial information is translated into knowledge and memory.

In a recent article, Kourdis and Kukkonen (2015, p. 5) argue that intersemiotic translation is a new research field in translation studies, which is still regarded with skepticism by translation-studies scholars. Although I agree with the second part of their claim, my own view would be that it is not a matter of intersemiotic translation becoming a field of research in translation studies, but rather that translation itself has to be

conceptualized within a theory of semiotics, which renders all translation semiotic. This means that the Jakobsonian notions of intralingual, interlingual, and intersemiotic translation are rendered obsolete and that I have to conceptualize new categories of translation to fit the new theoretical conceptualization.

In the same article, Kourdis and Kukkonen (2015, p. 6) argue that translation studies allows one to study the transformation of semiotic systems, i.e. culture. This is a point that is well established in conventional translation studies, but it is largely limited to the linguistic aspects of culture (Even-Zohar, 2005, 2006; Toury, 1995), such as literary texts. As I argued earlier, language in general and written language in particular do not operate in isolation from iconic and indexical forms of communication, and are being equated (if not supplanted) in many cases of modern communication. Therefore, to study the transformation of culture in all its complexity, we need a theory of translation, i.e. semiotic process, that allows us to study all semiotic forms, not only language.

As a final point, I need to point out that Kourdis (2009b) refers to the nature of translation as characterized by a ‘duality,’ which he explains as the two languages involved. In other articles, he and his collaborators (Kourdis & Kukkonen, 2015; Yoka & Kourdis, 2014) also refer to equivalence and the mediating nature of translation between sources and targets. These references to typical problems in translation studies need to be revised in a new theory of translation. First, when translation is conceptualized as the process driving semiosis, the static question of equivalence needs reconceptualization (see also Kostopoulou, 2015). The point is that it is not inherent in the semiotic process that the subsequent sign should be true to the incipient sign. Rather, the prerequisite to be true or not is a social constraint that makes possible and constrains the process of translation. Translation can be done in any way, and social constraints determine the nature of this process. This argument does away with absolute notions of relativism: everything is relative because it is related to something else, but it is not absolutely relative. It is relatively relative, because it is constrained by particular factors that limit the relationships, and thus the relativity. This is how we create stability, meaning, and enough settledness to be able to act. We constrain the endless possibilities to manageable terms. The question is, thus, not about being true to the incipient sign or not, it is about the effects of the constraining process. One can, thus, model the incipient semiotic system as a set of potential meanings that are constrained by various macro-semiotic factors. This means that the subsequent system is a function of the impact of the constraints working on the microelements, not only of the microelements themselves. Second, if one thinks of translation in process terms, source, and target need to be reconceptualized (into incipient and subsequent), because every source will in some respect already be a target of a previous semiotic process. Last, the binaries of two languages involved in translation cannot hold in interlinguistic translation, as evidenced by news translation, so

it is much less likely to hold in intersemiotic translation, where numerous sources may be incorporated in an iconic sign, for instance.

Kourdis presents a number of arguments that advance the debate on conceptualizing translation. His work clearly indicates the need for a wholesale rethinking of the notion of translation because of technological advances, but also because of the nature of semiosis itself. What his thinking on translation theory lacks is an awareness of biosemiotic translation, a point that the next contributor in the narrative of intersemiotic translation, João Queiroz, raises.

2.6 *Queiroz*

João Queiroz and his research team in the Iconicity Research Group in Brazil have produced a significant body of literature on various aspects of intersemiotic translation over the past two decades. This body of literature, covering at least 200 publications, is too large to review in full, which means that I have to limit myself to a few salient points on intersemiotic translation. Queiroz's (and his group's) work is broad and brings together Peircean semiotics, biosemiotics, cognitive semiotics, digital humanities, emergence, and complexity thinking, literary theory, dance theory, and art theory, among others. In particular, I wish to focus on the way Queiroz and his group use Peircean semiotics, his views on emergence and complexity, and the biosemiotic contributions of his work to a theory of translation.

In a series of co-authored articles, Queiroz and Aguiar (Aguiar & Queiroz, 2009a, 2009b, 2013; Aguiar, Casteloes, & Quieroz, 2015; Quieroz & Aguiar, 2015) explore the application of Peircean semiotics to intersemiotic translation. By using the Peircean triad, which explains that a sign consists of a process in which a representamen, object, and interpretant are related to one another, they propose two ways of conceptualizing translation semiotically. On the one hand, the traditional source text is the representamen, its content is the object, and the traditional target text is the interpretant, constructed as the outcome of the translation process. This is the most common way to look at interlingual translation. On the other hand, one can view the traditional target text as the representamen, the traditional source text as its object, and the response of the reader/audience as the interpretant. Queiroz and Aguiar demonstrate these theoretical distinctions with cases of written texts that have been translated, intersemiotically, into dance. While I agree with their argument, I do not agree with their 'either-or' position. Rather, given the process nature of translation, I would argue that their two options are two stages in the process of translation, in this case, of a written text into a dance. One would even be able to add more processes, for instance, of the way people act after having attended such a translation. The valuable point that Queiroz and Aguiar do, however, add to the debate, is that translation is not a binary process between a source and a target. Rather, it is a triadic process in which representamen, object, and

interpretant are dynamically related in a never-ending process. As Queiroz and Merrell (2006) write elsewhere, semiotics, as a field of study, operates on the assumption that it is possible to ‘cut’ portions of the semiotic process and study them as if they were (subsequent) states. The implications of this triadicty for translation studies need to be worked out in detail.

In their work, Queiroz and his collaborators do, indeed, also explore the process nature of semiotics, and they do so from a complexity perspective. Referring to Peirce, they (Aguiar & Queiroz, 2009a, p. 70; Queiroz & El-Hani, 2006b, p. 79; Queiroz & Merrell, 2006, p. 45) view the semiotic process as a four-dimensional process that unfolds in time in order to constrain the behavior of the interpreter. What happens in this process is that a representamen is chosen in a particular medium which embodies the form of the object and which determines (read ‘constrains’) an interpretant. The ‘form’ of the object is ‘a power,’ in Peirce’s (MS 793, pp. 1–3) terms, or even a ‘habit’ or ‘rule of action’ (CP5.397, CP 2.643), a ‘disposition’ (CP 5.495, CP 2.170), a ‘real potential’ (EP 2.388) or a ‘permanence of some relation’ (CP 1.415). This form can be embodied in any number of mediums in the representamen, which then determines the interpretant. In a 2006 article, Queiroz and Merrell (2006, p. 39) explore the relational and processual nature of semiosis in more detail (see also Gustafsson, 2015). They define process as ‘a coordinated group of changes in the complex of reality, an organized family of occurrences that are systematically linked to one another either causally or functionally’ (Queiroz & Merrell, 2006, p. 39), following Rescher. This process can only be studied by abstracting states from the process, for example, a source text. A source text is part of a semiotic process and, although it has materially been frozen, it cannot be understood fully without relating it to incipient and subsequent semiotic processes. Translation studies, thus, needs to reconsider its mainly spatial conceptualization of meaning, and supplement it with a temporal conceptualization of meaning, i.e. moving from three-dimensional to four-dimensional thinking and modeling when it comes to translation. Queiroz and Merrell (2006, p. 44) formulate this elegantly in the following way: ‘The form-becoming is the realization of a habit of interaction embodied in the Object to the interpreter so as to constrain its behavior.’

The important point of this semiotic process is that it is not reducible (Queiroz & Aguiar, 2015, p. 205); it has to relate all three parameters of the meaning-making process to each other. Thus, the relationship between representamen and object does not render meaning, neither does the relationship between representamen and interpretant, or between object and interpretant. It is only when all three parameters are related that meaning ensues.

An important term to be explored further is ‘constraint.’ In traditional translation studies, the idea is that a source text has to be equivalent to a target text, that a target text stands in either a documentary or an instrumental relation to the source text (Nord, 2001), or that the translation

strategy followed by the translator has either a foreignizing or a domesticating effect on the reader (Venuti, 1995). In contrast, when one thinks in terms of Peircean process semiotics, representamen, and object enter into a processual relationship to an interpretant, in such a way that it constrains the interpretant. Constrain should here be taken in its use in complexity thinking, namely making possible by limiting (Deacon, 2013). The triadic semiotic relationship makes possible and constrains the meaning in a semiotic process. On the one hand, it means that ‘more’ meaning can be constructed than intended; on the other hand, it means that not all meaning can be constructed, whether intended or not. The point is that the relationship between what I shall later call an ‘incipient semiotic system’ (source text) and ‘subsequent semiotic system’ (target text) is one of constraint, of emergent tendency, of emergent habit, of emerging pattern, of emerging trajectory. This emerging relationship can take a complex array of shapes, from exact copies made by a photocopier (with no difference in spatial relations, but only temporal difference) to the most fanciful flights of the imagination where Count of Monte Christo becomes the name of a Japanese video game that has nothing to do with the original novel. The relationship is an emerging one (Queiroz & El-Hani, 2006a), instantiated in each case under the historical and spatial circumstances and constraints and affordances of that particular production. This relationship can also, as a social phenomenon, take on particular patterns itself, to the extent that in, say, Bible translation, social convention determines a particular relationship between incipient and subsequent system. In translating ideas into architectural form, both social convention and technological advances will determine the particular relationship between incipient and subsequent system, as will the translation of business practice into policy. In legal translation, this relationship will, again, be subject to unique conventions, as will literary translation, news translation or any other form of translation.

What is unique about the contribution of Queiroz and his collaborators is that they provide data for real intersemiotic translation (see for instance Aguiar, Casteloos, & Queiroz, 2015). In other words, their work does not suffer from the same linguistic bias for which I criticized Gorfée, Petrilli, and Torop. Their work covers a wide array of intersemiotic practices, such as demonstrating how cubism in Picasso is translated into written literature by Gertrude Stein and how this literature, in its turn, is translated into dance in experimental work done by Queiroz and his group (Aguiar & Queiroz, 2015; Queiroz & Atã, n.d.). The point is that they demonstrate how one object, cubism, can be translated by means of various representamens, i.e. dance, painting, written literature, to construct a variety of interpretants. In order to account for these practices from a translation studies point of view, theories of interlingual translation do not suffice. What is needed is a radically comprehensive semiotic theory of translation.

As Queiroz and his collaborators are mainly interested in artistic work, they formed the Iconicity Research Group because, as they explain, aesthetic

signs are predominantly iconic (Queiroz & Aguiar, 2015, p. 206). In these kinds of translations, one finds, in the words of Haroldo de Campos, ‘transcreations’ between multiple levels of semiotic relations (Atã Ribeiro Pinto, 2016; Queiroz & Aguiar, 2015, p. 202). Thus, the semiotic trajectories that emerge from the translation process are complex, occurring at multiple levels and differing between these levels. In their view (Queiroz & Aguiar, 2015, p. 212), intersemiotic translation

represents a laboratory of experimentation involving new ways to deal with well-known materials and methods, since it requires from the translator or translation team a selective attention to the relations between the levels of description of the source sign, as well as the most relevant aspects in these relations.

Queiroz and Loula (2010), furthermore, work out the implications of complexity thinking for intersemiotic translating, pointing to the temporal nature of all semiotic process. In their view (*Ibid.*, p. 54), semiotic systems self-organize as the various interacting entities in such systems interact, interrelate, and influence one another in various ways. Global patterns of communication thus emerge from local interactions without any external or central control (*Ibid.*, p. 57). In further articles, Queiroz and collaborators explore the topic of self-organization in communication, in particular by simulating computationally the evolution of communication in animals (Queiroz & El-Hani, 2006b, n.d.; Queiroz & Loula, 2010, 2011). In the process, they not only conceptualize translation within complexity thinking, but also add the notions of evolution and non-human communication to the agenda.

Queiroz’s contribution to the field of intersemiotic translation can hardly be overstated. To my mind, he was the first scholar who worked on translation between purely non-linguistic semiotic systems. I do, however, think that his work is biased toward aesthetic data and that it needs to be expanded to include all forms of social and cultural data. We need to be able to explain how agricultural practices are translations of semiotic systems. Equally, we need to explain how sports entail a translation aspect, how management entails the translation of a variety of semiotic systems, etc. To this effect, I explore the implications of indexicality for social semiotics in Chapter 6.

3 Multimodality/Multimediality

Multimodality/multimediality has become a major field of interest across a wide variety of traditional disciplines. To get an indication of this variety, the reader can visit the website of a conference on intermediality held in Sweden in 2016 (Transmediations Conference, n.d.) The common denominator in all these studies is the notion of translation as the process that

drives semiosis and that links the multiple modes/media of a particular instance. As a comprehensive overview of this field of interest will need a book on its own, and will then not serve the purposes of this book, I limit my discussion to a small selection of, in my view, relevant authors, and then only to their thoughts on translation.⁴ My understanding is that one part of the multimodality/multimediality movement can be traced back to the linguistic work of Michael Halliday, whose linguistics tried to move beyond grammar, toward ‘a means of representing patterns of experience . . . It enables human beings to build a mental picture of reality, to make sense of their experience of what goes on around them and inside them’ (Halliday, 1985, p. 101; Kress & Van Leeuwen, 2006). This view is closely related to the biosemiotic version of Peircean semiotics (Sebeok & Danesi, 2000). Other roots of this scholarly movement would be aesthetics (see Sonneson, 2014) and critical discourse analysis (Machin, 2016):

The central place accorded to materiality in MMDA [multimodal discourse analysis—KM]—even though subject to constant social and semiotic work—remains: MMDA opens the possibility of moving against the reductiveness of twentieth-century generalization and abstraction (in much of linguistics for instance), and toward a full account—in conjunction with other theories and disciplines—of the impact of the fact that, as humans, we are physical, material bodies and that meaning cannot be understood outside the recognition of this materiality.

(p. 46)

I use both multimodality and multimediality, as scholars in this field seem to be divided in their choice of terminology and the meanings they ascribe to the terminology. It is not my aim in this book to solve this problem.

3.1 Kress

Kress can be regarded as one of the founding fathers of multimodality thinking. Together with Van Leeuwen (Kress & Van Leeuwen, 2006; Kress, 2010), he laid the foundations of this approach that has serious implications for translation studies. The point of departure in Kress’ thought is that meaning rarely, if ever, occurs in one mode of communication only (Kress & Van Leeuwen, 2006, p. 2). Mostly, communication is multimodal, and one is able to communicate the same meanings with relative similarity through different modes. For example, you may write down roughly the same thing as what you are able to say verbally. Thus, communicators have at their disposal a number of affordances that they can use to communicate. These affordances are socially and culturally constructed, which means that Kress is actually presenting a socio-semiotic theory (Kress, 2009, p. 54). In his view, semiosis is a socio-cultural process that operates by means of culturally constructed affordances, which he calls modes (Ibid., p. 54). With

Van Leeuwen, Kress (Kress & Van Leeuwen, 2006, p. 4) argues that none of these affordances is universal, rather, they are culturally specific. Even ‘visual language,’ he argues, is culturally specific, as people from different cultures would ascribe different meanings to the same color. They are correct, in my view, then, when they argue that the universality of semiosis lies in the semiotic processes themselves (Ibid., p. 4). People use these universal processes in culturally particular ways to make representations of what is of interest to them (Ibid., p. 7). Translation, i.e. semiotic process, is thus, in the first place, concerned with survival, with creating meaning out of the experience of the Other, whether that is the environment, or others of the same species, or others of other species, in order to survive. In this regard, Umberto Eco in *Kant and the Platypus* (1997), John Deely in *Purely Objective Reality* (2009b), and Tom Sebeok and Marcel Danesi in *Forms of Meaning* (2000) are all in agreement with Kress (see also the talk by Deacon, 2016). Semiosis refers, first, to a process of modeling experience, of making sense of (new) experience in order to formulate strategies for survival. It is not primarily meant for literary play—though it is for that too—but for interacting with the Other in order to survive. The process of translation, of creating interpretants, is crucial, because if any living organism gets it wrong, it spells discomfort at best and death at worst. Kress and Van Leeuwen (2006, p. 12) explore how children, for instance, use representational resources to communicate. In the case of children practicing their communication, getting it wrong would not result in death, but in frustration, because the communication with the parent failed. They conclude, ‘This incessant process of “translation,” or “transcoding”—transduction—between a range of semiotic modes represents, we suggest, a better, a more adequate understanding of representation and communication’ (Ibid., p. 39). It seems to me that it is only (some) translation-studies scholars, and perhaps (some) linguists, who fail to see the dominance of this multimodality in modern communication and who think that we can still study translation in a monomodal way as the rewriting of a written text in another language.

One of the main, unresolved issues in the multimodal/multimedial debate refers to the notions of mode and medium. Kress (2009, p. 54, 2010, p. 79) talks about mode, defining it as a ‘socially shaped and culturally given resource for making meaning.’ Modes are the affordances that offer the potential to make meaning. Kress (2009, p. 54) points out that his theory provides for equal emphasis on the ‘material “stuff” of mode’ and on the ‘work of culture.’ Consequently, the social or cultural work done on the available material creates a mode. As examples of modes, he gives the following: image, writing, layout, music, gesture, speech, moving image, soundtrack and 3D objects (Kress, 2010, p. 79). However, it becomes confusing when he also, sometimes, talks about medium instead of mode, for instance, sometimes calling speech a mode and sometimes calling it a medium.

Whether the mode/medium debate is settled or not, the point for translation studies is that communication consists mostly of ‘bundles of (highly

diverse) features' (Kress, 2009, p. 58). Kress (2010) offers ample examples of these kinds of bundles, such as road signs that direct traffic to particular venues (pp. 1–5), school textbooks (pp. 89–92), cognitive learning (pp. 93–95), passport photos (p. 115), etc. The complexity of the communication process requires a complex theory of translation, because it cannot be explained by a linear, monomodal, reductionist theory of translation. The further implication of multimodality is that translation theory needs to be able to deal with a multitude of modalities and that the ways in which these modalities operate together to constitute meaning, i.e. the translation process between them, need to be considered.

3.2 *Elleström*

Without referencing Peirce, Elleström (2010a, pp. 1–2) starts off where Peirce would have started and with what Peirce would have called Firstness; the becoming aware of the representamen of the sign, to which Elleström refers as the interface. As a cognitive semiotician, Elleström (Ibid., p. 2) makes it clear that the process of constructing meaning starts with perception, in his case with a viewer perceiving with 'photosensitive receptors, the letter X.' As Deely and many others argue, and contra idealism, meaning making does not start with the formation of ideas and is not limited to the knowledge of ideas. Meaning making is a complex interaction between living organisms and their environment, in which both play a role. This means that all aspects that play a role in meaning making, e.g. the materiality of the environment, both inner and outer senses, sensation, perception, and thinking, need to be considered in this process. In his chapter in the book he edited, Elleström (2010b, p. 13) confirms the impossibility of neatly separating the 'tangible qualities of media' from 'various perceptual and interpretive operations performed by the recipients of media.' He criticizes both realist and constructivist views on this relationship, arguing for a complex conceptualization of material, perceptual, and social (Ibid.), just as Deely does.

Reflecting on the close relationships between multimedia studies and multimodality studies, Elleström (2010b, p. 13) makes the wise observation that it is a waste of intellectual energy to work on these fields independently from one others. In other words, if they have certain features in common, scholars would benefit from dialogue about these features. I would like to join Elleström but take his argument further. As indicated in the introduction to this book, the multiplicity of terms using either 'inter' or 'trans' and which study a variety of cultural phenomena from a number of angles can also be said to have one thing in common, namely that they are translations, i.e. semiotic processes. As Elleström indicates, the time has, indeed, arrived to see the commonalities in these seemingly divergent approaches and to cease wasting intellectual energy and reinventing the wheel for each approach.

Concerning intermediality, Elleström (2010b, p. 28) distinguishes between two processes through which the borders between mediums can be

traversed, namely combination and integration, on the one hand, and mediation and transformation, on the other. In other words, media can be combined and integrated, for instance, integrating visual and auditory media in theater. Mediation and transformation refer to the material ways in which meaning is instantiated. If one disregards the binary nature of this distinction, what Elleström is seemingly trying to do is to account for the ‘inter’ in intermediality. What are the linking processes involved when you have more than one medium operating in a communicative situation? This is the translation question I am trying to answer, though more philosophically, abstractly, and theoretically than Elleström. For Elleström (2010b, p. 30), mediation and transformation of media are a matter of grade, of degree.

Having argued the materiality of meaning-making processes, Elleström (2010a, p. 4) proceeds with the following claim:

Hence, I would say that all kinds of sign systems and also specific media productions and works of art must be seen as parts of a very wide field including not least the material, sensorial, spatiotemporal, and semiotic aspects. In my essay in this volume, I call these the four ‘modalities’ of media.

Taking a route different from that of Kress, Elleström (2010b, p. 13) argues that media, defined as the channel for the mediation of information or entertainment, have four modalities, or ways of being or doing their thing (Ibid., p. 14). These modalities are material, sensorial, spatiotemporal, and semiotic (Ibid., p. 15); thus he argues that, to be intersubjectively perceptible, meaning has to be mediated in a material form (intrasubjective thinking is excluded from this, as we all know that we cannot know what someone else is thinking). These material media activate the senses, which is the starting point of the flow of meaning. Apart from being material and available to the senses, all mediums are of the nature that they exist in four dimensions (the three spatial dimensions and time), and that they create meaning, i.e. the semiotic mode. Elleström does not refer to translation in the chapter quoted. However, his work is relevant as, on the one hand, an illustration of the unresolved debate about mode and medium and, on the other hand, the complex nature of meaning-making processes, which I call translation.

3.3 *Sonesson*

In a recent article in the broader contexts of cognitive semiotics, communication, and multimodality/mediality, Sonesson (2014) argues that translation is, wrongly, being given too wide a scope. In his view, both Jakobson and Peirce—and their followers—are wrong in equating translation with semiotic processes. For him, translation can only be clearly defined as a particular instance of communication, which he then calls a double act of communication (Ibid., p. 249). He refers to the existence of a target text that has

to be interpreted (first act of communication) and then re-communicated in another language (second act of communication). This is typical interlingual translation, but he does not stop there. He also harks back to the days of prescriptive translation studies, by setting a conservative goal for translation. In his view, '[t]he telos or goal of the act of translation is to preserve the meaning of what is translated as much as possible' (Ibid., p. 262).

I do not think the attempt at prescriptive translation studies deserves any further comment, but the claim that translation is uniquely defined by entailing a double act of communication does. Being a double act of communication cannot be the defining feature of interlingual translation, as all semiotic process entails double acts of communication. As Peirce has argued, the meaning of a sign is its translation into another sign. This statement stipulates an existing sign that has to be interpreted by turning it into another sign. So, here too, there is a double act of communication, if only intrasubjective, i.e. with the interpreter's mind. I am not convinced that one will solve the definitional problem by following Sonesson. I suggest that we rather agree with Peirce that all meaning making and meaning-taking entail translation, and then we describe and compare the unique sets of constraints under which these processes take place. In the case of interlingual translation, we can use Toury's postulates, namely that an interlingual translation process assumes, to a greater or lesser extent, the existence of an incipient written text in a particular language, as well as the existence of a subsequent written text in a language different from that of the incipient text. The processes also assume that the incipient text functions as the 'offer of information' (Nord, 2001), based on which the subsequent text is created, subject to socio-cultural conventions (the field, in Bourdieu's terms) that are relative to time and space.

However, there might also be other translation processes in which the incipient sign is a statue of a mother and child, and the subsequent sign is a piece of instrumental music. The relationship between the two is very different from the case of interlingual translation, though the process is the same. In this case, the relationship could involve the subsequent sign being an interpretant, based on the intimacy between mother and child, or the pathos that the mother feels for the dead child, etc. In each case, some features of all the possible meanings of the incipient sign have caused the subsequent sign, not all features.

4. Conclusion

The cursory overview of some developments in intersemiotic translation in the field of semiotics over the past three decades that I provided earlier provides enough evidence for me to indicate the following trajectories in the field. First, linguicentrism is being challenged by multimodal communication. As Danesi (2017) illustrated with his argument about rebus writing, even forms of written communication have historically been of a

multimodal nature. Theoretically, Peirce's semiotics provides for a complex blending of a variety of modes of communication. The advent of digital communication has made this underlying principle more visible because of its computational power. Translation-studies scholars will find it increasingly difficult to maintain interlingual translation as their 'real' or 'only' interest, because cases of pure interlingual translation will become fewer and fewer. Even if these scholars, with some theoretical justification, decide to limit the scope of the field of translation studies to only interlingual translation, much of interlingual translation will, in future, be done in conjunction with intersemiotic translation, and in many cases, interlingual translation will be replaced by intersemiotic translation in multimodal communication. Kress' examples of the difference in textbooks over the past five decades are one simple testimony of this point.

Second, anthropocentrism, which is the basis of linguicism, is being challenged by various ecological paradigms of thought. In semiosis, this plays out in the budding new field of biosemiotics, which argues convincingly that humans are not the only meaning-making and meaning-taking organisms on earth. A theory of translation that is able to deal with this development will need to abandon its anthropocentrism and be able to deal with humanity as one of the semiotic species on earth.

Third, the literature I perused earlier makes it clear that fields outside translation studies have developed much further in thinking through the implications of these developments. Being hamstrung by its linguistic, literary, and elitist biases, translation studies has not been able to expand its thinking to include the aforementioned factors and to present leading thinking in the emergence of the cultural and the social through processes of translation. I point out in later chapters that even sociologists, e.g. Latour and Renn, understand the foundational nature of translation as the semiotic process that underlies the emergence of culture and society better than (interlingual) translation-studies scholars do.

Fourth, as will become clearer in the next chapter, symbolic signs are not the only type of signs that are translated. Icons and indexes are also translated. Translation theory should allow for this.

Notes

1. I explain Peircean phenomenology and his categories of signs in more detail in Chapter 4.
2. This problem is exacerbated by the dictionary use of the term 'interpretation' or 'interpreting' for oral translation.
3. I do not deal with the problem of pan-semiotics in this book, but I am aware that delimiting semiotics is not as simple as I present it here.
4. Readers can consult Kress (2010, 2013), Kress and Van Leeuwen (2006), and Van Leeuwen (2005) for overviews of social semiotics or multimodality/multimediality.

4 Translation

The Process Underlying Semiosis

1 Introduction

In Chapters 2 and 3, I argued that a comprehensive theory of meaning can help translation-studies scholars to understand the full scope of translation. This implies that the full scope of translation can be understood by exploring its relationship to semiotics. It is to this task that I turn in this chapter.

In an interview with Kristian Bankov played at the 2014 conference of the International Association of Semiotic Studies, Umberto Eco explained that, in his view, semiotics is not an academic discipline in the usual sense of the word. Rather, it is something like a meta-program for research. Similarly, I would like to argue that translation studies is not a run-of-the-mill academic discipline. Equally, a translation is never a process-phenomenon in its own right. Nowhere under the sun would one find something that is a translation and nothing but a translation. A translation process-phenomenon is typically simultaneously also a literary process-phenomenon or an architectural process-phenomenon or a cultural process-phenomenon, etc. My use of process-phenomenon in hyphenated form expresses the conviction that translation is process that takes form, a conviction that I work out in detail in this chapter. ‘A translation’ process-phenomenon is never something that you can point to in order to distinguish it from some other thing. Thus, one would never be able to say, ‘This is a translation, and that is not a translation.’ Even if you define translation very narrowly as interlingual translation only, Toury (1995) has made clear that identifying translations is not easy. Rather, ‘a translation’ is a translation of a novel, of an idea, of a cultural phenomenon. Translation is a process that is being enacted on something, which thing is not itself a translation, but a thing that has been translated or that has come to be through translation. This is why one always conceptualizes translation as ‘translation of’: translation of language, translation of literature, translation of thought, translation of text, translation of specialist knowledge, translation of pictures, translation of plans.

The various turns in translation studies have usually taken one of these concomitant categories, i.e. language, pragmatics, culture, power, ideology,

or society, and turned it into ‘the’ stuff of translation. Inevitably, someone then came along later and pointed out that translation is more than the translation of language, or the translation of culture, or the translation of literature, or the translation of power. It is my contention that the most profound way of conceptualizing translation is to think of ‘translation of meaning.’ The ‘stuff’ of which translation is the process is meaning, meaning in all of its myriads of forms, shapes, shapelessness, materialities, instances. A comprehensive theory of translation needs to be embedded in a comprehensive theory of meaning, i.e. semiotics.

The crucial point in semiotics is not that subsequent signs differ from incipient ones, or that semiosis is unstable and never-ending. These are givens in semiotics, not the characteristics that should fascinate us. Rather, the pivotal questions are why and how certain processes take form and stabilize, why and how constraints work on processes to create form, pattern, ‘habit’—the difference that makes a difference. In other words, why does phenomenology require ‘stable’ semiotic forms and processes? In Peircean terms, we are looking for semiotic ‘habits.’ In complexity-thinking terms, we need to explain semiotic trajectories or semiotic attractors.

Obviously, Peirce was not the only semiotician in history. So, why did I choose his work? The most basic reason is because his work spawned research that relativizes linguicentric and anthropocentric approaches to semiotics. His is a comprehensive semiotics (see Chandler, 2007; Copley, 2010a; Deely, 1990, 2001; Eco, 1979; Hawkes, 1977; Noth, 1990; Sebeok, 1986; 2001a, b for introductions). For the same reason, I also bypass the strong tradition of structuralist and poststructuralist semiotics, especially that of the French tradition. Here, I refer to De Saussure and his influence on scholars such as Barthes and Greimas and the poststructuralists, like Derrida, who followed. As will also become clear, especially from Deely’s work, relativity and deconstruction are not the main tasks of scholars who are trying to understand the human condition—by studying the cultural and social manifestations thereof, among other things. Relativity is actually the starting point, from which we need to explain the stability, this trajectory rather than that one, this form rather than that one. It is not relativity that needs explanation; it is stability. In order to do this, I explore the road less traveled—the Peircean route.

In his magisterial work, *Four Ages of Understanding*, John Deely (2001) demonstrates how the history of philosophy can be conceptualized as a search for a theory of meaning. This search, in Deely’s view, is largely conceptualized, but not finalized, in Peirce’s scholarship and is now being explored in what Deely calls ‘true’ postmodernism. For Deely, true postmodernism entails the realization that living organisms, in particular human beings, exist, mainly, in communication. The full ambit of the existence of living organisms is communicative. Living organisms do not appear solipsistically and then start to communicate. Rather, the existence of living organisms is irrevocably relational, dependent on numerous ‘Others,’ and

irrevocably communicative, being constructed through interaction with numerous ‘Others.’ Deely also points out that it took two millennia of thought by scholars to construct a ‘general’ theory of signs, a theory that is limited neither to speech, nor to humans, neither to ‘*res naturae*’ nor to ‘*res cogitans*’—once again achieved in the thought of Peirce and still in the process of being worked out in detail.

In this chapter, I explore these aspects of semiotics in the work of Peirce and followers of his work. The focus is on the notion of translation in Peirce’s semiotics, which is part of his phenomenology. I also explore the contribution that biosemiotics makes to a theory of translation.

2 Peirce: Semiotic Experience

Charles Peirce was one of a few true polymaths in human history. The implication of this point is that one cannot consider his semiotics in isolation or, even more importantly, one cannot conflate his phenomenology and his semiotics, like Robinson (2015) seems to do. In this section, I offer a comprehensible overview of Peirce’s work for translation-studies scholars. However, I would like readers to understand a number of points. First, I do not claim to be a Peirce specialist. Second, Peirce’s own thought developed and re-developed, which means that an historical overview of his work is difficult to achieve.¹ That I am not a Peirce specialist makes it especially difficult to represent the historical and logical nuances in his thought. Third, Peirce is notorious for being difficult to read and understand, not least because of the significant number of neologisms he created. Furthermore, he has achieved such a level of abstraction in his thinking that his thinking needs some kind of translation process to operationalize it. Against this background, I try my best to make Peirce speak ‘translationese.’

Uninitiated readers should note that Peirce left about 100,000 pages of manuscript when he died in 1914. In the little more than 100 years since his death, about 10,000 of these pages have been published in various collections, among which *The Collected Papers of Charles Sanders Peirce* (Peirce, 1994). As Peirce research is still in a relatively early phase, due to the fact that not much of his writing has been available, the convention in Peirce studies is to do a significant amount of exegetical work of Peirce’s thought, and to quote his thought regularly. These collections are usually referenced by conventionalized abbreviations, such as CP for the aforementioned source, followed by a number, indicating the section of the work, a period and another number that refers to the particular paragraph from which the quote was taken. So, a typical reference, to one of his best-known definitions of translation, will look like this:

Conception of a ‘meaning,’ which is, in its primary acceptance, the translation of a sign into another system of signs.

(CP 4.127)

This means that the quote comes from *The Collected Papers of Charles Sanders Peirce*, Section 4, Paragraph 127.

In the rest of the chapter, I explore Peirce's phenomenology, his semiotics and his views on translation and interpretation. I close the chapter with an overview of biosemiotics.

2.1 *Phaneroscopy*

Peirce was hugely influenced by Kant and developed his phaneroscopy (his technical term for phenomenology) to explain the most basic categories of experience. Viewing himself as a logician above all else, Peirce searched for the simplest categories of experience, namely categories that cannot be decomposed into smaller categories (de Waal, 2001, p. 9, 2013, p. 40). These categories are not ontological, but phenomenological, that is, they relate to what 'seems' (de Waal, 2001, p. 16, 2013, p. 37) rather than what is. For Peirce, the main goal of phaneroscopy is that it would allow one to determine the universal features of all phenomena as they appear to experience. In Peirce's view, there are three basic categories of experience, which he calls Firstness, Secondness, and Thirdness (usually written with capital letters, see also Merrell, 1997 for a discussion).

The first category, Firstness, is 'the idea of a thing,' 'something that is entirely independent of any reference to anything else' (de Waal, 2001, p. 10) or 'presentness' (Ibid., p. 17). Firstness, the simplest element that is shared by all phenomena, is thus pure awareness without the subject knowing what it is aware of. Stated differently, Firstness refers to the 'being' of phenomena in the way they are without relating them to anything else. It relates to the 'ephemeral, ungraspable' (Ibid., p. 17) aspect of phenomena. There is no object, or Secondness, of this awareness. Peirce also calls this Firstness pure 'possibility.'

The second category, Secondness, refers to something in distinction from something else (de Waal, 2001, p. 10), something that presents itself to the observer, that 'imposes' itself upon the observer. Secondness refers to becoming aware of what one is aware of, and this thing that one is aware of may exist independently of one's awareness of it, i.e. it might exist outside the mind. Obviously, it is known only through one's awareness of it, but it could exist independently of awareness. Secondness refers to the existence of things independently of perception or thought. Things that are Seconds 'impose themselves upon me' (Ibid., p. 18), as they are opposed or connected to other objects. Firstness is awareness, Secondness is awareness of something, which is not the awareness. So, in Secondness, there are two aspects, namely the awareness, and the thing of which one is aware. Secondness is thus built on difference. Philosophically spoken, Secondness refers to the Other. This Secondness is, however, not yet related to anything else. It is just distinguished from the Firstness.

The third category, Thirdness, refers to mediation, by which the First and the Second are related. As de Waal (2001, 10) formulates it, Thirdness is ‘a mode of being which derives its identity entirely from its relating two objects to one another.’ Here, we have three elements, namely the two things that are related, and the third that relates it (*Ibid.*, p. 18). The important point is that everything that appears in living experience entails an aspect of Thirdness. In this sense, in Peirce, ontology and phenomenology coincide. Things exist as they are (Firstness), in contradistinction from other things (Secondness) and in relationship to one another (Thirdness). In the same way, they appear to experience as pure awareness (Firstness), as awareness of difference from other things (Secondness) and as awareness of relations between things that are different from other things (Thirdness). Firstness, Secondness, and Thirdness are, therefore, also, perhaps foremost, phenomenological categories. It is in this sense that mental experience entails Thirdness. It is the ability to relate the awareness (Firstness) of something to the thing (Secondness), in the process creating meaning (Thirdness). This phaneroscopy, though not to be identified with Peircean semiotics, is the basis from which Peirce created his semiotics, as we shall see in the next section.

These three categories, namely something, some other, mediation (Firstness, Secondness, Thirdness), are hierarchically ordered in the sense that there can be no Secondness without Firstness and there can be no Thirdness without Secondness and Firstness (de Waal, 2001, p. 11). Furthermore, these categories are pervasive throughout the whole of the universe. Most importantly, they are irreducible. This is one reason why Peircean thought is a powerful antidote to the reductionist tendency in Western thought. Thirdness does not reduce to three Firstnesses, for instance. All three categories of experience are required in relationship, and this relationship cannot be reduced to the relationship of any two categories. Furthermore, relationship itself is an irreducible category.

Peirce links his phenomenology to pragmatism, or pragmaticism, as he calls it. For him, meaning and causality are related. As de Waal (2001, p. 25) puts it, ‘the effect of an object is the conception we have of it.’ The meaning of something is the ‘totality of practical consequences we can conceive the object of that conception to have’ (*Ibid.*). Meaning is thus an effect that leads to action, and action (pragmatics, i.e. doing practically) is the momentary endpoint of meaning, because, in order to act, one assumes that you have established meaning and you act on that assumed established meaning while the process of meaning, in actual fact, continues. As I argue in more detail in Chapter 5, Peirce’s thought carries a significant realist position in two senses. First, his insistence on Secondness entails a refutation of pure idealism in the Cartesian sense of the word (de Waal, 2001, p. 26). Second, his pragmatism entails realism, in the sense that meanings have real causal effect and that these effects can be physical actions or artifacts made as

interpretants, or in Deacon's (2016) terms, meanings are grounded. Meaning is thus not, as in idealism, something in consciousness only. It is part of a complex interplay between consciousness (which is based on a material substrate, anyway) and matter.

As part of his phenomenology, Peirce also deals with scientific knowledge, which, according to him, is always fallible (de Waal, 2001, p. 39), an active pursuit by a body of people (de Waal, 2001, p. 32; Robinson, 2016). This view is quite close to that propagated by Latour, to whom I shall return again in Chapter 6. Knowledge is created in three ways, namely abduction, induction, and deduction, and these three are linked to Peirce's phenomenology, namely Firstness, Secondness, and Thirdness. Abduction is related to the Firstness of knowledge, the 'aha' moment, without necessarily knowing why and what. Induction is related to Secondness, where one allows the otherness of the object to determine your understanding. Deduction is related to Thirdness, in which one formulates a law and then argues logically from that law. The important point is that Peirce argues that it is only abduction that leads to creativity. In induction and deduction, one works with knowledge that is already available, but in abduction, something new, original is created. This point has been explored by a number of translation-studies scholars (Gorlée, 1994, 2010, 2016; Robinson, 2015, 2016), who argue that interlinguistic translation should be more creative, i.e. abductive. While this might be a valid argument in literary translation, I need to point out that Robinson does not distinguish between Peirce's phenomenology and his semiotics. Robinson, in the titles of his books and in the texts themselves, claim to be exploring Peircean semiotics, while he is actually exploring Peircean phenomenology. As we shall see, Peirce's phenomenology has a major influence on his semiotics, but I think it is a major fallacy to conflate the two.

A last important aspect of Peirce's phenomenology is the notion of habit. For Peirce, the universe has one major habit: It tends toward taking habits. Peirce uses the term 'habit' as a synonym for law-like behavior or regularity. In other words, the universe tends to have trajectories, tendencies, regularities, which emerge out of chance. True to his triadism, he argues that reality has three elements, namely change, law and habit-formation (de Waal, 2001, p. 53). There is no explanation for laws and regularities. They just emerge out of the chaos as part of the habit-taking tendency in the universe. In this way, Peirce maintains a complexity perspective on stability and change, one of the problems dogging Western philosophy.

This brings me to Peirce's semiotics.

2.2 *Semiotics*

Peirce develops his semiotics to answer the detailed phenomenological question: How do we know? He answers that we know through semiotic relationships. Semiotics, thus, entails epistemology. A major implication of Peircean semiotics is that all thought is in signs. Peirce's own words are as follows:

A sign is something by knowing which we know something more.
(CP 8.332)

In Peirce's view, there is no human thought and, thus, no knowledge without semiotics. All human thought is in signs. We think by linking the material and the virtual together semiotically (Eco, 1997). We think by relating signs to one another. We know by relating the sensory input we get, to knowledge we already have, to existing signs. In my discussion of the work of John Deely, in Chapter 5, I return to this problem in detail.

Semiosis, according to Peirce, is also process:

A sign is anything which determines something else (its interpretant) to refer to an object to which [it] itself refers (its object) in the same way, the interpretant becoming in turn a sign, and so on ad infinitum.
(CP 2.303)

A particular sign is merely one state of affairs in a much larger, never-ending process. I discuss the details of the process nature of semiotics in Chapter 5. Generally conceptualized, a sign is something that stands for something to somebody (Merrell, 2000a, p. 16; CP 2.228). In other words, a sign is a process of relating three elements, namely the representamen, the object and the interpretant. In my view, the crucial point of the semiotic process, or semiosis, is that the representamen, or sign-vehicle, 'stands for' something else. With it, the notion of mediation, of creating relationships, enters into the fray. Before semiosis, one only had direct cause and effect. The ability of living organisms to take something 'as' something else is, however, crucial for survival in a number of respects. First, it allows the organism to know mediate rather than immediately. To know immediately, the organism needs to be in contact with the thing it needs to know, let us say a predator. In contact with the predator, the knowledge will be too late, but if the organism can smell and take 'this smell' to 'stand for' 'that predator,' the organism still has time to flee. Second, this semiotic ability allows for the development of language and abstract thinking, which underlies civilization among humans. Once an organism has learned how to take something as something else, not even the sky is the limit.

A sign consists of three elements that constitute the sign only if all three of them are related (see Merrell, 2000a, pp. 11–54 for an exploration of Peirce's theory). Readers can also consult Chandler (2007), Copley (2010a), de Waal (2001, 2013), Deely (1990), Gorrée (1994), Noth (1990), Sebeok (1986) and the entries for Merrell and Peirce in the reference list, for further reading. To quote Peirce:²

A sign, or *representamen*, is something which stands to somebody for something in some respect or capacity. It addresses somebody, that is, creates in the mind of that person an equivalent sign, or perhaps a more

developed sign. That sign which it creates I call the *interpretant* of the first sign. The sign stands for something, its *object*. It stands for that object, not in all respects, but in reference to a sort of idea, which I have sometimes called the *ground* of the representamen.

(CP 2.228)

In Peircean semiotics, it is not the thing (word, trace, smoke, weathervane) that is perceived that is the sign. Signs consist of the relationships between the representamen (sign-vehicle), object and interpretant. A sign is not a sign-vehicle, but the three elements in relationship to one another. A sign is constituted by the fact that the three elements are linked (Deely, 2009b, p. 206), which means that a sign is a set of relationships. This idea Deely (2009b, p. 206) calls the ‘most important and most dramatic move in the history of semiotic enquiry.’ The three elements in their relationship together are ‘the thing’ that stands for ‘something’ to ‘someone.’ The ‘thing,’ the ‘something’ and the ‘someone’ are thus the three elements of a sign and the ‘stand for’ is the function of the sign. Historically, the object (something) came first, but in experience, the representamen (thing) is the first element, and it leads the interpreter to the object. The interpreter then engenders meaning by relating representamen and object and by mediating between the two, resulting in an interpretant (someone, roughly speaking) (Merrell, 2000a, p. 13).

In Peircean semiotics, signs are neither a special kind or type of thing, nor do they have special characteristics. Rather, signs are functions based on relationships. Signs become such through the process of relating their three elements to one another. This means that anything can function as a sign if it is drawn into the triadic relationship that engenders signs (Merrell, 2000a, p. 16). In somewhat philosophical terms, the sign is ‘always and only’ a suprasubjective connection between the three elements (Deely, 2009b, p. 69; see also Deely (2001, 2009a) for detailed discussions about the nature of semiosis). By suprasubjective, I take Deely to mean that the ‘sign-ness’ of the sign is not in the nature of either representamen, object or interpretant, i.e. the three elements are not connected because of something they have in common (subjective or intersubjective qualities). Rather, the semiotic relationships that are established between them in the translation process, over and above what they are (suprasubjective), are what render them signs.

Peirce works out his triadic phenomenology in his semiotics, too. So, the First of the sign process is the ‘something’ (that stands for something else). This ‘something’ Peirce designates with the technical term ‘representamen’ or, in some cases, sign-vehicle. In his own words, he defines the representamen as follows:

A REPRESENTAMEN is a subject of a triadic relation TO a second, called its OBJECT, FOR a third, called its INTERPRETANT, this triadic

relation being such that the REPRESENTAMEN determines its interpretant to stand in the same triadic relation to the same object for some interpretant.

(CP 1.541)

The representamen is the material or mental carrier of the sign process. Readers should note that Peirce uses technical terminology here to try to avoid confusion. In general parlance, the word ‘sign’ refers only to the ‘thing’ that stands for something else. The word, ‘dog,’ would thus be a sign of a four-legged, domesticated, canine animal. The meaning of that sign would then be the ‘four-legged, domesticated, canine animal.’ In Peircean thought, the term ‘sign’ refers to a process of relating the three elements (representamen, object, and interpretant) of the sign process to one another. Consequently, one should rather think in terms of sign process than of signs. The Firstness of the sign process is, thus, the representamen (in general parlance, the ‘sign’), and this is something mental (with an obvious physical substrate in the brain) or physical that stands for something else.

It is, furthermore, important to note that the representamen functions in a constraining relationship with the interpretant (‘determines’ in Peirce’s words). It constrains the interpretant to the extent that the relationship between the representamen and interpretant are similar to the relationship between representamen and object. I use constrain here in both its senses, namely makes possible, and limits. The representamen does not allow any interpretant in any ad hoc way. In the same way that it has been constrained by the object, it constrains the interpretant. One could say that it creates a similar relationship between itself and the interpretant as the relationship in which it stands to the object. For instance, a photo (representamen) of my paternal grandfather (object) constrains my identification (interpretant) of the man in the picture. It cannot be my paternal grandmother, or my grandchild. It could be my maternal grandfather, because this constraint is not absolute. Furthermore, consider the track (representamen) of a lion (object). The representamen constrains my interpretant (at some point in the past, a lion walked here) in that I cannot interpret the track as that of a whale or a vulture or a butterfly. It being part of a sign process, I could misinterpret the representamen as being that of a female lion, while it was actually a male lion, or I could misinterpret it, if I were not familiar with predator tracks, as that of a leopard. However, I could not interpret it as my paternal grandfather having walked here sometime in the past—unless the track occurs in a fictional world (such as a movie), in which my paternal grandfather had a human body but lion-like feet. In all of these cases, even the most fanciful, the representamen acts as a constraint on the interpreting process, making possible some interpretants and ruling out, to a greater or a lesser extent, some others. Note that the logic here is not absolute, but rather probable—in a qualitative sense.

The Second of the sign process is the object, i.e. that for (in place of) which the representamen (not the sign) stands. As a Second, the object is

an Other, an actuality, something brute (CP 1.24). Elsewhere, Peirce conceptualizes Secondness as struggle, resistance (CP 1.322; 1.324–5). Objects can be material (a member of the category ‘*res naturae*’) or imaginary, fictional, mental or of any other status (a member of the category ‘*res rationes*’). The object is, thus, the element that resists the Firstness of awareness by being different, other, resisting. By its difference, the one that is being aware becomes aware of something other than being aware. One’s view on the relationship between the representamen and object determines whether you take a realist, or an idealist, or some other position on the creation of knowledge. Peirce was not clear on this matter, or, at least, his work has been interpreted to support both idealist and realist positions. On the basis of Deely, I take a complexity view on this matter, arguing that Peircean semiotics allow for a complex weaving of relationships by means of signs. This weaving is both idealist and realist, because it regards both the constructing ability of cognition (or perception) and the co-constructing Secondness of reality as influential in the way living organisms relate to their environment.

Peirce distinguishes between two types of objects, namely immediate objects and dynamical objects. The following two quotes give an idea of Peirce’s thinking in this regard:

But it is necessary to distinguish the *Immediate Object*, or the Object as the Sign represents it, from the *Dynamical Object*, or really efficient but not immediately present Object.

(CP 8.343)

As indicated earlier, the object is some brute ‘thing’ that stands in opposition to the representamen. It is the thing for which the representamen stands. In this sense, the object is dynamical—it is real, efficient, not present to the semiotizing mind. However, for it to become known, it has to enter into a semiotic relationship with the representamen and the interpretant. It has to be semiotized. So, the dynamical object is turned into an immediate object, about which Peirce says the following:

[L]et us suppose: ‘It is a stormy day.’ Here is another sign. Its *Immediate Object* is the notion of the present weather so far as this is common to her mind and mine—not the *character* of it, but the *identity* of it. The *Dynamical Object* is the *identity* of the actual or Real meteorological conditions at the moment.

(CP 8.314)

Talking about a stormy day (the representamen) relates my and my interlocutor’s minds to our ideas about stormy days (immediate object) as well as to the actual stormy day (dynamical object) that is happening, as Secondness, outside. So, the representamen stands for the immediate object, i.e. the

idea of the real thing, and for the dynamical object, i.e. the real thing itself. In this way, idea and reality are irreducibly woven into the web of experience. The complexity of the relationship between representamen and object is reflected in another quote from Peirce:

I define a *Sign* as anything which on the one hand is so determined by an Object and on the other hand so determines an idea in a person's mind, that this latter determination, which I term the *Interpretant* of the sign, is thereby mediately determined by that Object. A sign, therefore, has a triadic relation to its Object and to its Interpretant.

(CP 8.343)

In this quote, the representamen (which Peirce here calls a sign, inconsistently with his own suggestion) is determined by the object and determines the interpretant. As indicated earlier, I think the term 'constrains' is more accurate, but that is beside the point here. The point is that the object has a (semiotic) causal effect on the representamen, which has similar (semiotic) causal effect on the interpretant. It is, thus, not so easy to claim, as postmodern theories of meaning seem to do, that meaning is arbitrary, that a sign does not refer, that reality cannot be known and has no effect on knowledge, because knowledge is constructed by human ideas, inside the human consciousness. I operate on the argument that we shall never know exactly where consciousness ends and reality begins, or vice versa. This does not mean that we can solve the problem by bracketing out reality—or consciousness. Another quote from Peirce might perhaps help to make the distinction clearer:

But it is necessary to distinguish the *Immediate Object*, or the Object as the Sign represents it, from the *Dynamical Object*, or really efficient but not immediately present Object.

(CP 8.343)

So, the brute thing for which a representamen stands is stood for in two ways. The immediate object is the object 'as' the representamen stands for it. The dynamical object is the object 'as' it is, irrespective of being represented.

The Third of the sign process is the interpretant, which mediates between the First (representamen) and the Second (object). The interpretant mediates between the representamen and the object in the following way. The relationship between the representamen and the object is such that the object determines the representamen. The relationship between the representamen and the interpretant is such that the representamen determines the interpretant. The relationship between the object and the interpretant is such that the object determines the interpretant mediately, in that the object determines the representamen, which determines the interpretant. There is no direct, immediate relationship between object and interpretant. Their relationship

is mediated by the representamen. This means that the object needs not be present for it to be experienced or known. This mediating ability of semiosis breaks the direct, unmediated causal relationship that physical phenomena have with one another. For example, an organism does not have to be in touch with food to recognize it as food, but an atom somehow has to be in touch with the source of heat to be heated. The interpretant interrelates and mediates (Merrell, 2000a, p. 12) between representamen and object in such a way that it brings them into relationship with one another and also with itself. Their meaning does not only emerge through them being interrelated, but also through them being interdependent.

As with objects, Peirce conceptualized more than one type of interpretant. In fact, he theorized that there are three interpretants:

The *Immediate Interpretant* is the *schema* in her imagination, i.e. the vague Image or what there is in common to the different Images of a stormy day. The *Dynamical Interpretant* is the disappointment or whatever actual effect it at once has upon her. The *Final Interpretant* is the sum of the *Lessons* of the reply, Moral, Scientific, etc.

(CP 8.314)

It has also three interpretants, its interpretant as represented or meant to be understood, its interpretant as it is produced, and its interpretant in itself. Now signs may be divided as to their own material nature, as to their relations to their objects, and as to their relations to their interpretants.

(CP 8.333)

It is likewise requisite to distinguish the *Immediate Interpretant*, i.e. the Interpretant represented or signified in the Sign, from the *Dynamic Interpretant*, or effect actually produced on the mind by the Sign; and both of these from the *Normal Interpretant*, or effect that would be produced on the mind by the Sign after sufficient development of thought.

(CP 8.343)

Despite Peirce seemingly using the terms ‘final interpretant’ and ‘normal interpretant’ indiscriminately, the three interpretants refer to the three phenomenological categories, namely First, Second, and Third. The immediate interpretant is the First of the interpretant, in other words the awareness that the representamen awakens in the observer. The dynamical interpretant is the Second of the interpretant, in other words, the actual effect of the sign process on the interpretant. The Third of the interpretant is the final (normal) interpretant, in other words, the sum of what can be understood from the sign process. The final interpretant is determined by pragmatic considerations, or what Peirce calls pragmatism. In theory, the sign process

never ends, but for pragmatic reasons, to be able to act on the knowledge constructed through the sign process, the process is stopped at a particular point in time in order to act. The interpretant is, thus, never absolutely final, only pragmatically final, and it can always re-enter the semiotic process.

It is important to note that the interpretant, in Peircean thought, is not necessarily an idea or thought, like it would be in Saussurean semiotics. It could be any kind of response that had been elicited by mediating the relationship between the representamen and the object. This means that an interpretant could also be an action, an experience, or the effect of such an action or experience, for example, a work of art.

But we may take a sign in so broad a sense that the interpretant of it is not a thought, but an action or experience, or we may even so enlarge the meaning of sign that its interpretant is a mere quality of feeling.

(CP 8.332)

Let us look at some examples. A column of smoke is a representamen of a fire (object). When an organism observes the representamen, it forms the interpretant of a fire by relating representamen to object in a particular logic (to which we return later) without being in physical contact with the fire, without having seen or felt the fire. The process through which the smoke is related to a fire in order to understand the meaning of the smoke is thus a sign process, a sign in short. It is not the smoke that is the sign. The smoke is only the representamen or sign-vehicle. The sign itself is the relationship between smoke, fire, and the idea or action created in the observer's body-mind (a notion that I explain later).

It is important to point out that representamen, object, and interpretant are semiotic functions, not inherent characteristics of things in the world. Thus, something can now function as a representamen (with a particular object and interpretant), later as an object (with a different representamen and interpretant), and even later, as an interpretant (with a different representamen and object). At a particular 'space-time junction' (Merrell, 2000a, p. 22), a moment frozen in the semiotic process, there would, however, be a particular representamen, a particular object and a particular interpretant, which could change in the next 'space-time junction.'

Probably the most well-known aspect of Peircean semiotics is his three categories of signs, based on the relationship between representamen and object. These are icon, index, and symbol (Merrell, 2000a, pp. 14–16). However, the Peircean set of categories of signs is much more complex, and this complexity is highly relevant to the point that I wish to make concerning translation, as should become clear in due course. However, let us start by looking at the well-known distinction between icon, index, and symbol by looking at some quotes from Peirce:

An *Icon* is a sign which refers to the Object that it denotes merely by virtue of characters of its own, and which it possesses, just the same, whether any such Object actually exists or not. It is true that unless there really is such an Object, the Icon does not act as a sign; but this has nothing to do with its character as a sign. Anything whatever, be it quality, existent individual, or law, is an Icon of anything, in so far as it is like that thing and used as a sign of it.

(CP 2.247)

An icon is a sign process in which the representamen bears some resemblance to the object in the sense that it shares some of the qualities of the object. This means that the object determines the representamen through a relationship of likeness or similarity, for example a photo, a painting, a sculpture. It seems obvious that icons will be strongly visual, but that does not mean that they will be visual only. Even in symbolic sign processes such as language, one would get iconic features such as the following: It took a long time. The long string of o's resembles the length of the time.

An *Index* is a sign which refers to the Object that it denotes by virtue of being really affected by that Object. It cannot, therefore, be a Qualisign, because qualities are whatever they are independently of anything else. In so far as the Index is affected by the Object, it necessarily has some Quality in common with the Object, and it is in respect to these that it refers to the Object. It does, therefore, involve a sort of Icon, although an Icon of a peculiar kind; and it is not the mere resemblance of its Object, even in these respects which makes it a sign, but it is the actual modification of it by the Object.

(CP 2.248)

An index is a sign process in which the relationship between the representamen and object is one of causality, logical necessity, or physical proximity. I provided the example of smoke earlier, where there is an inverse causal relationship between smoke and fire. Equally, a footprint entails an indexical sign as the representamen (the footprint) is causally determined by the object (the foot). A finger (representamen) that points in a particular direction stands in an indexical relationship to the thing pointed to (object), guiding the observer to an interpretant.

A *Symbol* is a sign which refers to the Object that it denotes by virtue of a law, usually an association of general ideas, which operates to cause the Symbol to be interpreted as referring to that Object. It is thus itself a general type or law, that is, is a Legisign. As such it acts through a Replica. Not only is it general itself, but the Object to which it refers is of a general nature. Now that which is general has its being in the instances which it will determine. There must, therefore, be existent instances of

what the Symbol denotes, although we must here understand by ‘existent,’ existent in the possibly imaginary universe to which the Symbol refers. The Symbol will indirectly, through the association or other law, be affected by those instances; and thus the Symbol will involve a sort of Index, although an Index of a peculiar kind. It will not, however, be by any means true that the slight effect upon the Symbol of those instances accounts for the significant character of the Symbol.

(CP 2.249)

Lastly, a symbol is a sign with a conventional or law-like relationship between representamen and object, such as in language. However, as Merrell (2000a, p. 16) points out, the initial conventional or arbitrary relationship between representamen and object in a symbol does become motivated through history. Deacon (2016) also points out that even symbolic signs have some grounding in the more basic iconic and indexical signs, but this is a story for another day. Therefore, although there is no reason why a particular flower should be called a rose and there is no rosiness in the word rose, calling that particular flower a pansy in 2017 will be wrong in most contexts, because the arbitrary connection has become conventionalized, a habit shared by meaning-makers and meaning-takers alike. A word, a text, an argument, a color, in short, any general relationship between representamen and object, entails a symbolic relationship, in the Peircean definition of ‘symbolic.’

Before I even continue to the other Peircean sign categories, I can already point out that traditional translation studies has studied only or mainly symbols. Iconic and indexical signs have not received attention in translation studies, except in cases where scholars tried to argue for an iconic or indexical relationship between source and target text in interlingual translation (Naudé, 2010; Petrilli, 2010).

2.3 *Types of signs*

Peirce, however, went even further, by determining, initially, 10 categories of sign and, later, 64 categories (see Merrell, 2000a, pp. 37–34). He did this by creating a matrix in which he cross-tabulated the representamen, object, and interpretant with Firstness, Secondness, and Thirdness. This is quite a complicated argument that does not concern us here. The outcome, however, is that Peirce comes up with ten categories of signs, of which only the last five entail language (see also de Waal, 2013, pp. 90–92) as is evident in Table 4.1.

What Peirce did with this matrix (see CP 2.254–263 for a detailed discussion) was to argue that one gets signs in which the representamen, object, as well as interpretant operate at the level of Firstness. This is why Merrell assigns it the numbers ‘111,’ namely Firstness of representamen, object, and interpretant. Peirce calls these qualisigns, and Merrell thinks that a good

Table 4.1 The Ten Types of Sign (Source: Merrell, 2000)

<i>Common Name</i>	<i>Peircean Name</i>	<i>Example</i>
Feeling (111)	Qualisign	Fuzzy sense of blueness
Imaging (211)	Iconic sinsign	Diagram, apart from that to which it is related
Sensing (221)	Rhematic indexical sinsign	A spontaneous cry
Awareing (222)	Dicent sinsign	Weather vane
Scheming (311)	Iconic legisign	Music recognized not as rock but as classical
Impressing-saying (321)	Rhematic indexical legisign	Pronoun such as 'this'
Looking-saying (322)	Dicent indexical legisign	'Hi,' 'What's up'
Seeing-saying (331)	Rhematic symbol	Common noun: The Ninth
Perceiving-saying (332)	Dicent symbol or proposition	Sentence: The Ninth is from the Romantic Period
Realizing (333)	Dicent sinsign or argument	Text: Essay on Beethoven's Ninth

common name for them would be pure feeling. An example would be a fuzzy sense of blueness, without knowing what is blue, or why it is blue. In other words, representamen, object, and interpretant would be conflated into one awareness, without any distinctions between them.

The second type of sign, thus, entails the Secondness of the representamen and the Firstness of object and interpretant, i.e. 211 in Merrell's scheme. Peirce calls this an iconic sinsign. In this case, the representamen can be distinguished from the object because it is a Second, i.e. something distinguished. There is, however, no distinction between object and interpretant. Merrell cites as example a diagram, apart from that to which it is related. There is a thing, but it stands in no clear relationships to other things.

In the third type of sign, both representamen and object function at the level of Secondness, that is, as distinguished things. There would be awareness of the representamen in contradistinction from other representamens, as there would be of the object. Peirce calls this a rhematic indexical sinsign, and Merrell calls it sensing, with the numerals 221. These indicate that the sign operates at the level of the Secondness of both representamen and object, but the interpretant has not been engendered beyond Firstness. This means that there is not yet a clear understanding of what the representamen

and object mean. A spontaneous cry would be such a sign. The observer will be able to identify it as a cry in distinction from a gunshot, would know that it was made by a human, but whether it was in pain or joy or disgust, and whether by man or woman, whether young or old, etc. would be unknown.

The fourth sign is a dicent sinsign, or awaring, as Merrell calls it. In this sign, all three elements have been engendered to the level of Secondness, hence Merrell's symbols 222. A weathervane would be a good example of this sign. In this case, an observer would be aware that there is a weathervane, that it points in a particular direction and that the direction is indicative of the direction from which the wind blows. Note that all of this knowing occurs without language.³

The fifth type of sign is an iconic legisign, or scheming, in Merrell's terms. In this sign, the representamen is developed to the level of Thirdness, but the object and interpretant only to the level of Firstness, hence 311 in Merrell's numerology. An example of this sign is that one recognizes music not as rock, but as classical.

It is only at sign-type six, the rhematic indexical legisign, that language enters the picture. In this kind of sign, which Merrell calls impressing-saying (321), the representamen is fully developed, the object functions at the level of Secondness, but the interpretant is still just mere awareness, i.e. Firstness. As an example, Merrell suggests a pronoun, for example, 'this.'

A dicent indexical legisign, Peirce's next type of sign, the seventh, could be something like a brief greeting, such as 'Hi,' as Merrell suggests. The sign entails the Thirdness of the representamen and the Secondness of both object and interpretant. Merrell calls this type of sign looking-saying 322 in his numerical system.

Sign-type number eight, a rhematic symbol, entails the Thirdness of both representamen and object and the Firstness of the interpretant, hence 331 in Merrell's scheme. This sign is something like a common noun, i.e. 'The Ninth.'

In the next sign-type, the common noun 'the ninth' is developed into a sentence, such as 'The Ninth is from the Romantic Period.' This sign, called a dicent symbol by Peirce, and perceiving-saying by Merrell, entails the Thirdness of both representamen and object and the Secondness of the interpretant.

The most fully developed sign, Peirce's dicent sinsign or argument, entails the Thirdness of all three of the constituents of the sign process. The process has thus been fully engendered, rendering an argument, such as a full essay on Beethoven's ninth symphony. Merrell calls this sign, 333 in his scheme, realizing.

Whether one follows Peirce's technical description or either Merrell's numerical, or common-name descriptions, the point for translation studies is that there are many more types of signs than mere symbols. The fact that translation studies has, up to now, focused nearly exclusively on the

translation of symbolic signs, has limited the field of study, and has excluded a large number (if not the majority) of signs from its agenda. This has led, not only to the linguistic and logocentric bias of translation studies, but also to an anthropocentric bias, which cannot do justice to the complexity of sign processes as described by Peircean semiotics.

2.4 *Translation*

I have argued elsewhere (Marais, 2017; Marais & Kull, 2016) that translation is the technical term that Peirce uses to denote the semiotic process. In what follows, I revisit that argument to make it in more detail and to refine it. I do this by quoting copiously from Peirce and doing some detailed exegesis of his thought.

A search in *The Collected Papers of Charles Sanders Peirce* rendered 73 instances of him using the term, translation, and 67 instances of translate(d)(s). Broadly, these references fall in three categories. A first category would be what we can call interlingual translation. In these cases, Peirce refers either to (interlingual) translations that he has made, or that other people have made, or to problems with the (interlingual) translation of certain terms. In a second category, Peirce refers to mathematical problems, using the term, translation, in relation to geometric problems. In a third category, Peirce uses the term, translation, in his definitions of semiosis, i.e. the process of creating meaning. I am interested in the latter and focus on it here.

I do not refer to Peirce's references to actual interlingual translation, as these are not definitional and, thus, not relevant to my argument. I do, however, need to comment on Peirce's use of translation in mathematical contexts, the second context to which I referred earlier. In geometry, the term, translation, is often used to indicate the transposition of a geometrical figure. Therefore, the question is whether this type of translation is something other than the meaning of a sign that is to be translated into another system of signs. In my view, it is not. Geometric forms and geometry as a science, in fact, mathematics as a whole, is usually viewed as a formal 'language,' or a formal means of communication, which means that it is a semiotic system. Stated differently, mathematics is a set of signs, a code in which one conceptualizes problems according to their numerical features—or spatial-numerical features, in the case of geometry. In that sense, mathematics, as a semiotic system, is subject to the same principles as any other semiotic system. The meaning of a sign can only be determined by translating that sign into another sign. In a following section, I deal with the notion of translation in microbiology, indicating that translation is a pervasive phenomenon that occurs in all cases where the process of meaning-making and meaning-taking occurs. Translation studies cannot, thus, be limited to language, to human communication or to culture. It has to open up its purview to include all types of translation.

Not being a mathematician, I cannot comment on the mathematics of the examples that follow, apart from saying that the meaning of a mathematical equation or geometrical form is its translation into another systems of signs.

If a pendulum rolls upon a cylindrical surface of radius p , the instantaneous axis of rotation is the instantaneous line of contact; and a velocity of rotation about this axis is equivalent to the same velocity of rotation about the line of contact in the equilibrium position of the pendulum combined with such a translation velocity along the length of the pendulum as is necessary to fix the instantaneous axis.

(Peirce, 1989, p. 125)

There is but one relative which pairs every object with itself and with every other. It is the aggregate of all pairs, and is denoted by oo . It is translated into ordinary language by 'coexistent with.'

(Peirce, 1989, p. 457)

I next show experimentally that the motion of the knife-edge support is not a translation, but is a rotation, so that different parts of the head of the tripod, only a few centimetres distant from one another, move through very different distances.

(Peirce, 1989, p. 518)

Such a formula might, it is true, be replaced by an abstractly stated rule (say that multiplication is distributive); but no application could be made of such an abstract statement without translating it into a sensible image.

(Peirce, 1993, p. 165)

At this point, the reader would perhaps not otherwise easily get so good a conception of the notation as by a little practice in translating from ordinary language into this system and back again.

(Peirce, 1993, p. 180)

We have only to bear in mind the meaning of the symbol $1-$ (not by translating it into if and then, but by associating it directly with the conception of the relation it signifies), in order to reason as well in this language as in the vernacular,—and, indeed, much better.

(Peirce, 1993, p. 362)

Calling this the first step, the second will consist in translating the words which denote that which the proposition supposes, or takes for granted, into diagram language.

(Peirce, 2016, p. 171)

The diagram language into which proposition in mathematics is translated cannot possibly consist in nothing but a diagram, since no diagram, even if it be a changing one can present more than a single object, while the verbal expression of the proposition to be proved is necessarily general.

(Peirce, 2016, p. 171)

In the second place, the mathematician had to translate this general language into a concrete diagram which he had to create in his imagination, with or without the aid of a copy of it upon paper. The diagram being a single object, it could not, by itself, be adequate to represent the full meaning of the general language.

(Peirce, 2016, p. 174)

Finally, the mathematician, having completed his experimentation, has to retranslate his result into ordinary languages.

(Peirce, 2016, p. 175)

The first reference in which Peirce conceptualizes translation is as follows:

Transuasion (suggesting *translation*, *transaction*, *transfusion*, *transcendental*, etc.) is mediation, or the modification of firstness and secondness by thirdness, taken apart from the secondness and firstness; or, is being in creating Obsistence.

(CP 2.89)

From this quote, it is clear that, for Peirce, semiotics flows from phenomenology and is subject to the three categories that he identified in his phenomenology, which is at the same time an epistemology, i.e. a theory of the creation of knowledge. Mere awareness or possibility (Firstness) and otherness or resistance (Secondness) is mediated or modified by Thirdness. Thirdness is thus mediation, i.e. relating two things to one another. It entails a process of creating mediating relationships. For this process, Peirce uses the term, ‘translation.’ In this example, he uses it as a synonym, with a number of other related terms, but as I show, in later examples, he uses only ‘translation.’ Phenomenologically, translation is thus the process through which awareness and otherness are mediated to create meaning.

In the next example, Peirce deals specifically with meaning.

These people do not seem to have analyzed the conception of a ‘meaning,’ which is, in its primary acceptance, the translation of a sign into another system of signs, and which, in the acceptance here applicable, is a second assertion from which all that follows from the first assertion equally follows, and *vice versa*.

(CP 4.127)

This quote is probably the clearest of Peirce's views on translation and also most likely the source that Jakobson used when he conceptualized his three types of translation. In this quote, Peirce makes it clear that meaning can only be established by a further process of meaning-making, and meaning is established by never-ending processes of creating meaning, i.e. processes of translation (Merrell, 2003b, p. 165). It seems to me that, here, Peirce uses the notion of translation to refer to the process that underlies the creation of meaning. Meaning entails process, and this process is called translation. How does it work? Meaning is created by signs, and signs are triads of representamens, objects, and interpretants that are being related, that are in the process of being related. So, one has a continuous movement, a never-ending process. A representamen in itself has no meaning. An object in itself has no meaning. An interpretant in itself does not exist and has no meaning. It is only when the three of them are related, mediated, translated into a whole, that meaning is created. This process moves from incipient representamen to object to interpretant and then to subsequent representamen to object to interpretant, *ad infinitum*. For meaning to arise, movement in time or the elapse of time is a requirement. Meaning only arises when representamen and object are in relationship to interpretant, when they are being related. This process of creating relationships is what Peirce calls translation. Merrell (2003b, p. 168) rephrases meaning somewhat, in the following way:

Anything that codependently interrelates with its interpretant in such a manner that that interpretant codependently interrelates with its object in the same way that the object codependently interrelates with it, such (co)relations serving to engender another sign from the interpretant, and consequently the process is reiterated.

Merrell (1997, p. 15) argues that a change in meaning implies a change in interpretants, which means that a change in meaning implies the translation of an interpretant into another interpretant. This means that meaning, which emerges only as process, is actually always subject to translation—translation-as-meaning, as Merrell calls it. When it comes to the meaning of things, there is nothing deeper than signs. One cannot move out of sign processes to a point in space or time where you can interpret signs with something other than signs. We, living organisms, are born into the stream of semiosis, with no solid ground below our feet and no river bank in sight, semiosing as we go along. This is the nature of being human, the meaning of being human. This is 'in our genes' and 'in our culture.'

I also need to point out that the semiotic ability of living organisms, namely to take something to stand for something else, is not the same as the ability to think logically, although the two things are not entirely unrelated either. Thus, A stands for B is not the same as A is B, or stated differently, A as B is not the same as A is B. When I discuss the process nature of

semiosis in Chapter 5, I explore Merrell's contention that semiosis violates the classical laws of logic.

To return to Peirce, a crucial point in his definition of translation is that he does not refer to language at all. To be sure, his definition does not exclude language, but it does not mention language, like Jakobson does. As I mentioned in Chapter 2, when Jakobson defined translation, he used Peirce, but made one, seemingly insignificant, change to Peirce's definition. He added the word 'linguistic,' i.e. the meaning of a linguistic sign is its translation into another sign. This addition caused the linguistic bias that has been prevalent in translation studies since Jakobson. Being a linguist, Jakobson could be forgiven for this addition, as it was his field of interest. However, it did cause the entrenchment of a linguistic bias in translation studies that exists to this day. This situation needs to be corrected. In its broadest conceptualization, translation relates to the process of creating meaning—not linguistic meaning, not human meaning, not literary meaning, but meaning. Deely (2001) shows how Peirce is the culmination of two millennia of thinking that tried to conceptualize the ambit of meaning per se, irrespective of the mode, medium, maker or user of this meaning. Peirce defined meaning only as a process, in which something stands for something else to someone in some respect. This is a definition of any and all kinds of meaning, from the meaning-making process in the most basic living organism, which has to decide, on the basis of semiotic processes, whether to approach, retreat from or ignore something in its environment, to the most fanciful flights of the imagination of human beings. This decision is not necessarily conscious, not even in human beings, as will become clear in Chapter 5. All of these organisms share the same basic ability to take something as something else in some respect. This process of perceiving a representamen, distinguishing it from an object and relating the two by means of an interpretant, is the process that Peirce calls translation. Its outcome is the creation of interpretants, namely interpretation.

One should note, furthermore, that this definition includes all forms of human culture and social formation. As indicated earlier, interpretants, in Peirce's definition, can be either mental phenomena, or actions, or artifacts. Thus, the way in which human beings interpret the rainfall pattern of a particular area and then construct dams to collect water, entails, in addition to the engineering and planning and construction, also a semiotic aspect. It is a translational process, relating a representamen to an object to create meaning, meaningful action, meaningful artifacts, which are the interpretant(s). The way in which a society organizes its politics equally entails a semiotic aspect, as does sports, religion, academia, schooling, commerce, the law, etc. As I argue in Chapter 6, the Peircean conceptualization of translation, therefore, goes much deeper than Saussure's or Latour's or Renn's or Luhmann's. It is not only knowledge that entails a translation process, but all social-cultural action. It is not only different spheres of society that need translation because of systemic differences. All of human culture and society

entails a translational aspect (not forgetting that all living organisms share this trait to some extent).

Back to Peirce's notion of translation:

The meaning of a proposition is itself a proposition. Indeed, it is no other than the very proposition of which it is the meaning: it is a translation of it.

(CP 5.427)

The quote makes it clear that meaning can only be established or constructed through meaning. Thus, if one has a proposition, one can only determine its meaning through a process of translation, that is, through taking that proposition as a representamen, relating it to an object and creating another proposition, the interpretant, or some other kind of interpretant. This bringing into relationships is translation, and it is the prerequisite for meaning. Meanings are not given. They are processes, like metabolism, or as Robinson (2016, p. 128) suggests, anabolic processes. The moment they are frozen, death ensues. The earlier quote also makes clear why Jakobson could talk about intralingual translation. Peirce's conceptualization in CP 5.427 does not assume different languages as a prerequisite for translation. In the same language, a proposition needs to be translated in order for it to be understood. There is no meaning, no understanding, within a language or between languages or without/beyond languages, without this translation process.

Thought, however, is in itself essentially of the nature of a sign. But a sign is not a sign unless it translates itself into another sign in which it is more fully developed. Thought requires achievement for its own development, and without this development it is nothing. Thought must live and grow in incessant new and higher translations, or it proves itself not to be genuine thought.

(CP 5.594)

As the quote shows, for all living organisms, cognition is in signs. In the case of human beings, all thought is in signs. Thought, as Deely (2001, 2009b) makes clear, is a process of relating meanings to one another, whether those meanings are about mind-dependent or mind-independent phenomena. Thought is a relationship-creating process, a translation. It relates sensory information about mind-independent things to consciousness, and it relates the very physical and chemical stimulations that our senses are able to detect in the environment, the differences that make a difference, to our conceptual structures. Things, even words, are not signs in themselves. They become part of the sign process, semiosis, when they are taken as representamens that are related to objects in such a way that they determine interpretants, that is, they become signs when they enter

into the sign process, when they are translated. Thus, a Porsche is not a sign of affluence in its own right. It only becomes a sign of affluence if the Porsche is taken as a representamen of a large amount of money (object) which then leads to the interpretant, i.e. affluence. A Porsche could also be a sign of engineering acuity if the very same Porsche is taken as representamen of engineering processes of the highest order (object), thus constraining the interpretant, namely acuity. The point is that anything can be a sign—when it is translated, i.e. when it enters the semiotic process. The four quotes that follow focus on various aspects of translation, namely its never-ending nature, and that thought and translation go hand in hand and end in death.

And thus the intellectual character of beliefs at least are dependent upon the capability of the endless translation of sign into sign.

(CP 7.357)

There is no exception, therefore, to the law that every thought-sign is translated or interpreted in a subsequent one, unless it be that all thought comes to an abrupt and final end in death.

(Peirce, 1955, p. 234, 1984, p. 224)

And thus the intellectual character of beliefs at least are dependent upon the capability of the endless translation of sign into sign. An inference translates itself directly into a belief. A thought which is not capable of affecting belief in any way, obviously has no signification or intellectual value at all. If it does affect belief it is then translated from one sign to another as the belief itself is interpreted.

(Peirce, 1986, p. 77)

The third condition of the existence of a sign is that it shall address itself to the mind. It is not enough that it should be in relation to its object but it is necessary that it shall have such a relation to its object as will bring the mind into a certain relation with that object namely, that of knowing it. In other words, it must not only be in relation with its object, but must be regarded by the mind as having that relation. It may address the mind directly, or through a translation into other signs. In some way it must be capable of interpretation.

(Peirce, 1986, p. 83)⁴

In the next case, Peirce illustrates in more detail how the translation process works.

In fact, the perceptual judgment which I have translated into ‘that chair is yellow’ would be more accurately represented thus: ‘ . . . is yellow,’ a pointing index-finger taking the place of the subject. On the whole,

it is plain enough that the perceptual judgment is not a copy, icon, or diagram of the percept, however rough. It may be reckoned as a higher grade of the operation of perception.

(CP 7.635)

Translation, in this example, entails making use of semiotic affordances to change the representamen. The representamen, 'That chair is yellow,' has as its object a particular yellow chair and as interpretant the observer is referred to the yellowness of the chair. The representamen can be changed, translated, into a finger pointing (representamen) to the chair, accompanied by the word (representamen), 'yellow.' This sign process will lead to roughly the same interpretant, namely being referred to the yellowness of the chair. Translation thus works something like a spider web. The slightest reverberation to any of the 'threads,' i.e. representamen, object, interpretant or the relationships between them, sets in motion the translation process, leading to one or more changes in meaning. Even time or space could be such reverberations. For example, the utterance, 'I am tired,' spoken at 11:15 p.m. and 11:16 p.m. does not have the same meaning, i.e. it entails two different translation processes, which lead to two different interpretants. The second one would, all other things being equal, be a repetition of the first, leading to a different interpretation of it, such as that the speaker wants to emphasize the point of tiredness, or that the speaker thinks that she has not been heard.

In my view, therefore, one is left with a number of options concerning Peirce's use of the term translation. First, one can assume that Peirce was extremely sloppy in his thinking and wording. This is not an unreasonable line of argument, as Peirce, like any other human being, did show lapses in the consistency with which he used terms. However, when one looks at his conceptual scheme as a whole, in particular his focus on the process nature of semiosis, the argument that Peirce's views on translation can be attributed to a sloppy use of terms becomes significantly weaker; thus, I reject this possibility. The second option is to argue that the evidence that I have presented from Peircean sources constrains my interpretation of his thought as follows. For Peirce, semiosis is process. This process entails the never-ending change of the relationships between representamen, object, and interpretant, or the never-ending creation of relationships between representamen, object, and interpretant. This process of changing or creating relationships is what Peirce calls 'translation.' For Peirce, therefore, translation is a technical term that refers to semiotic process in all its guises. Some critics might argue that the evidence I presented proves this tendency, but it does not prove beyond a reasonable doubt that Peirce intended to use translation in this, technical, sense. This leads me to a third option, which I choose. I argue that, despite the fact that one can argue that Peirce was somewhat sloppy and despite the fact that it is difficult to argue intention, nothing in Peircean thought contradicts the line of thought that I (and other Peirce

interpreters) have taken, namely that translation is a technical term referring to the semiotic process. Based on this argument, I work out further details of a theory of translation in Chapter 5.

Eco (2001, 2004) raises a problem regarding the relationship between translation and interpretation in Peircean thought. He points out that Peirce seems to be confusing in his use of these two terms. Eco then proceeds by using the term ‘translation’ for interlingual translation only, and the term ‘interpretation’ for what I called translation earlier, i.e. the process of creating meaning. The question is whether one can determine a trend in this regard in Peirce’s writings, which, as granted earlier, are indeed notorious for his use of neologisms and some not-so-consistent use of terminology. For instance, he sometimes uses both ‘sign’ and ‘representamen’ to refer to the sign-vehicle. Next, I discuss some Peircean quotes from cases where he discusses the semiotic process. He does use ‘interpret,’ ‘interpreting,’ ‘interpreter,’ and ‘interpretation’ in some cases, mainly in the context of writing about mathematics. This usage has to remain as a topic for another day. For now, let us look at how he uses ‘translation’:

This is a fact that every reader of philosophy should constantly bear in mind, translating every abstractly expressed proposition into its precise meaning in reference to an individual experience.

(EP, p. 279)

In the example, Peirce refers to intralingual translation or hermeneutics, the process of understanding by creating further, more precise interpretants. The ‘abstractly expressed proposition’ in the philosophical text is simultaneously an interpretant, for the author of the text, and a representamen, for the reader of the text. This interpretant-representamen process needs to be taken further by the reader, to create yet another interpretant, the ‘more precise’ meaning, or some form of understanding.

The being of a sign is merely *being represented*. Now *really being* and *being represented* are very different. Giving to the word *sign* the full scope that reasonably belongs to it for logical purposes, a whole book is a sign; and a translation of it is a replica of the same sign. A whole literature is a sign.

(EP, p. 303)

Every kind of reasoning can be translated into every language on the globe and remains the very same argument, although the ways of thinking are utterly different.

(Peirce, 2016, p. 44)

The examples refer to interlingual translation. Peirce talks about the translation of a book, which is seen to be a replica of the same sign. In this case,

the interpretant caused by the translation process is regarded as a replica of the book that was translated—obviously a replica in another language. Here, Peirce refers to the conventional view that an interlingual translation of a book renders another book that is similar to the first one, except for the differences in language. While we are aware, as translation-studies scholars, that no absolute replicas are possible, semiotically speaking, we also realize the social convention of reading a translation as an original, as Hermans (2007) points out. I explore the constraints that operate on a translation process in Chapter 5.

The kind of translation to which the next quote refers focuses on the creation of human thought, which, in Peircean thinking, takes place by means of semiosis. Human beings think by relating signs to signs.

A word has a meaning only so far as it is translated into a thought; that is, it must in some way enter into a mind before it actually has a meaning.

(Peirce, 1986, p. 38)

The principal kind of rhetoric resulting from the third mode of specialization is the rhetoric of signs to be translated into human thought; and one inevitable result of basing rhetoric upon the abstract science looks on human thought as a special kind of sign would be to bring into high relief the principle that in order to address the human mind effectively, one ought, in theory, to erect one's art upon the immediate base of a profound study of human physiology and psychology.

(EP, p. 329)

The next two quotes refer to translation as exactly the opposite of the previous quote. Here, putting thought into words is called translation, in contrast to the earlier example, of putting words into thought. It becomes clear that the semiotic process, i.e. translation, entails all types of meaning-making and meaning-taking actions. It is not limited to translations from language to other sign systems but can occur the other way around and, in the Peircean definition, does not have to have language as one of the systems involved at all.

The rational meaning of every proposition lies in the future. How so? The meaning of a proposition is itself a proposition. Indeed, it is no other than the very proposition of which it is the meaning; it is a translation of it. But of the myriads of forms into which a proposition may be translated, what is that one which is to be called its very meaning? It is, according to the pragmatist, that form in which the proposition becomes applicable to human conduct, not in these or those special circumstances, nor when one entertains this or that special design, but that form which is most directly applicable to self-control under every situation, and to every purpose.

(Peirce, 1955, p. 261)

For a Sign whose Dynamoid Object is a Necessitant, I have at present no better designation than a *Collective*, which is not quite so bad a name as it sounds to be until one studies the matter: but for a person, like me, who thinks in quite a different system of symbols to words, it is so awkward and often puzzling to translate one's thought into words!

EP, p. 480)

The first quote makes clear that translation is a process aimed at the future. The meaning of all signs lies in the future, because their meaning can be determined only by subsequent signs, signs that are still to come, future signs. The semiotic process, i.e. translation, is thus non-reversible, because it is subject to the Second Law of Thermodynamics.⁵ This does not mean that past meanings cannot be revised and play a constraining role in the construction of meaning, but the meaning we have now is not 'the' meaning—it is only the meaning for now.

What does it mean to speak of the 'interpretation' of a sign? Interpretation is merely another word for translation; and if we had the necessary machinery to do it, which we perhaps never shall have, but which is quite conceivable, an English book might be translated into French or German without the interposition of a translation into the imaginary signs of human thought. Still, supposing there were a machine or even a growing tree which, without the interpolation of any imagination were to go on translating and translating from one possible language to a new one, will it be said that the function of signs would therein be fulfilled?

(EP, p. 340)

A *sign* must have an interpretation, or interpretant as I call it, this [interpretant,] this signification is simply a metempsychosis into another body; a translation into another language. This new version of the thought receives, [in turn] an interpretation, [and] so on, until an interpretant appears which is no longer of the nature of a sign; and this I am to show to you by good evidence is, for one class of signs, a [quality,] and for another, a deed; but for intellectual concepts, is a conditional determination of the soul as to how it would conduct itself under conceivable circumstances. That ultimate, definitive, and final (i.e. eventually to be reached), interpretant (final I mean, in the logical sense of attaining the purpose, is also final in the sense of bringing the series of translations [to a stop] for the obvious reason that it is not itself a sign) is to be regarded as the ultimate signification of the [sign].

(Peirce, 2016, p. 82)

The aforementioned quotes could, indeed, be used to argue that, for Peirce, translation and interpreting is the same thing. Based on this quote, the claim that Peirce sometimes used translation and interpreting as synonyms, could thus be true. I do not, however, agree with Eco's argument that, based on Peirce, one should retain the term 'translation' for 'interlingual translation' only and use the word 'interpretation' to refer to all other forms of translation. At best, based on Peirce, translation, and interpretation could be synonyms. However, one could also argue that it is time to clarify the seeming confusion in Peircean terminology on this topic. Because of such a possibility, I propose to use the word 'translation' as a technical term to refer to the semiotic process, and to use the word 'interpretation' as a technical term for the outcome or goal or function of the semiotic process. The goal of translation, i.e. the semiotic process, is the creation of interpretants, i.e. interpretation.

In the following quote, Peirce discusses the traces of a fossilized fish in a stone. The chemist who analyzes the stone and the paleontologist who studies the fossil of the fish are both fulfilling a translation function, creating an interpretant from a material representamen. This shows that, in Peircean thought, it is not only words and thoughts that can be mutually translated, but material reality can be translated into thought too. In this kind of thinking, Peirce brings to semiosis a kind of realism that Deely (2009b), as well as Deacon (2016) and Parmentier (2016), find useful. The second quote refers to the possibility of translating matter, i.e. taking something material as standing for something else in some respect. In the case of the fossil noted earlier, the material thing is a sign of a living process that has become extinct, and for an expert, it is a sign of a particular stage of evolution of living organisms.

For the fish is there, and the actual composition of the stone already in fact determines what the chemist and the paleontologist will one day read in them; and they will not read into them anything that is not there already recorded, although nobody has yet been in condition to translate it.

(EP, p. 455)

Its first advocate appears to have been Democritus the atomist, who was led to it, as we are informed, by reflecting upon the 'impenetrability, translation, and impact of matter (*ajntitupiva kai; fora; kai; plhgh; th'~ u}llh~*).'

(Peirce, 2010, p. 111)

The following examples represent my search in the *Collected Papers* for the token 'interpret,' and finding 'interpreter,' 'interpreting' and 'interpretation.' I provide these examples to argue, on the one hand, that Peircean thought does, indeed, allow a degree of synonymy between translation

and interpretation, but that it does not allow for Eco's use of translation for interlingual translation and interpreting as a broader category, including intersemiotic translation. On the other hand, these examples show, though admittedly not beyond all doubt, that the notion of interpreting or interpretation relates more to the construction of interpretants than to the whole of the translation process. Thus, in the three examples that follow, the representamen (sign-vehicle) is said to mediate between object and interpretant (in this quote 'object' and 'interpreting thought').

Indeed, representation necessarily involves a genuine triad. For it involves a sign, or representamen, of some kind, outward or inward, mediating between an object and an interpreting thought.

(CP 1.480)

In the first place, as to my terminology, I confine the word *representation* to the operation of a sign or its *relation* to the object *for* the interpreter of the representation.

(CP 1.540)

Now this is neither a matter of fact, since thought is general, nor is it a matter of law, since thought is living. Such a mediating representation may be termed an *interpretant*, because it fulfils the office of an interpreter, who says that a foreigner says the same thing which he himself says.

(CP 1.553)

The quotes that follow all refer to types of signs, such as symbols, rhemes or dicents, and, in all cases, Peirce uses the word 'interpreting' to refer to the mediation between object and representamen with the aim of constructing an interpretant. Interpreting, thus, refers to the goal of the translation (also semiotic process), namely, to create an interpretant that relationally mediates between object and representamen.

A *Symbol* is a sign which refers to the Object that it denotes by virtue of a law, usually an association of general ideas, which operates to cause the Symbol to be interpreted as referring to that Object.

(CP 2.249)

A *Rheme*†1 is a Sign which, for its Interpretant, is a Sign of qualitative Possibility, that is, is understood as representing such and such a kind of possible Object. Any Rheme, perhaps, will afford some information; but it is not interpreted as doing so.

(CP 2.250)

A *Dicent Sign* is a Sign, which, for its Interpretant, is a Sign of actual existence. It cannot, therefore, be an Icon, which affords no ground for an interpretation of it as referring to actual existence.

(CP 2.251)

Third: A Rhematic Indexical Sinsign [*e.g.* a spontaneous cry] is any object of direct experience so far as it directs attention to an Object by which its presence is caused. It necessarily involves an Iconic Sinsign of a peculiar kind, yet is quite different since it brings the attention of the interpreter to the very Object denoted.

(CP 2.256)

Icons and indices assert nothing. If an icon could be interpreted by a sentence, that sentence must be in a 'potential mood,' that is, it would merely say, 'Suppose a figure has three sides,' etc.

(CP 2.291)

A regular progression of one, two, three may be remarked in the three orders of signs, Icon, Index, Symbol. The Icon has no dynamical connection with the object it represents; it simply happens that its qualities resemble those of that object, and excite analogous sensations in the mind for which it is a likeness. But it really stands unconnected with them. The index is physically connected with its object; they make an organic pair, but the interpreting mind has nothing to do with this connection, except remarking it, after it is established. The symbol is connected with its object by virtue of the idea of the symbol-using mind, without which no such connection would exist.

(CP 2.299)

It is of the nature of a sign, and in particular of a sign which is rendered significant by a character which lies in the fact that it will be interpreted as a sign. Of course, nothing is a sign unless it is interpreted as a sign; but the character which causes it to be interpreted as referring to its object may be one which might belong to it irrespective of its object and though that object had never existed, or it may be in a relation to its object which it would have just the same whether it were interpreted as a sign or not. But the *thema* of Burgersdicius seems to be a sign which, like a word, is connected with its object by a convention that it shall be so understood, or else by a natural instinct or intellectual act which takes it as a representative of its object without any action necessarily taking place which could establish a factual connection between sign and object. If this was the meaning of Burgersdicius, his *thema* is the same as the present writer's 'symbol.' (See Sign.)

(CP 2.308)

The definition is thus only a proposition if the definitum be already known to the interpreter.

(CP 2.315)

In my view, the quotes from Peirce provide strong evidence for my claim that, even if Peirce himself did not intend this wittingly, the term 'translation' used as a technical term to refer to the process of semiosis does not contradict Peircean thought. Translation is, thus, process, but semiotic process, not any other kind of process. Process means movement through space and time, i.e. four-dimensional movement and change. Even if one prefers to hold the view that Peirce did not think about translation in these technical terms, I propose that we move beyond Peirce and indeed conceptualize translation as a technical term and that we draw a clear distinction between translation and interpretation as technical terms.

The quotes also offer suggestive evidence for my proposal to use the term 'interpretation' as a technical term to denote the aim or outcome of translation, i.e. the semiotic process. This outcome is the construction of interpretants, which interpretants can only be constructed by a process that entails a mediating relationship by an interpretant between an object and a representamen.

This does not mean that everything is translation. It also does not mean that everything semiotic is translation. It means that all semiotic process-phenomena emerge through a semiotic process, i.e. translation. This means that anything in the world, when it is woven into the semiotic web, has a translational dimension to it. It is this translational dimension to anything woven into the semiotic web that is to be the focus of study in translation studies.

3 Biosemiotics

Although Peirce's thought opened the possibility for biosemiotics, he did not delve into this option. Biosemiotics, rather, has its origins in the work of Jacob von Uexküll (1940, 1982) in the early 20th century. His work was picked up by the influential semiotician, Thomas Sebeok (2001b), who worked hard to institutionalize this field of study, systematized by the theoretical biologist, Jesper Hoffmeyer (2003, 2007, 2008, 2010, 2013, 2015) and further worked out by, among others, scholars of the Tartu School in Estonia and the International Society for Biosemiotic Studies (Biosemiotics, n.d.), also through the latter's journal, *Biosemiotics* (Biosemiotics Journal, n.d.). Favareau's (2007) overview of the history of the field, as well as books by Barbieri (2007a, 2007b), Henning and Scarfe (2013), Hoffmeyer (2008), and Sebeok (2001b, c) provide good introductory readings for novices. Even work by physicists, such as Stuart Kauffman (1993, 1995, 2000, 2008, 2013); neuro-anthropologists, such as Deacon (2013); and literary scholars, such as Wheeler (2006), make use of notions of biosemiotics.

As Favareau (2007, p. 1), Kull (2007a) and the collection by Henning and Scarfe (2013) point out, biosemiotics, first and foremost, entails a discussion within theoretical biology about overcoming the mechanistic assumptions underlying much of biology thought (see also Cobley, 2010c; Barbieri, 2007a; Barbieri, 2007b, 2008, 2009; Kauffman, 2013; Kull, 2007b, 2010, 2014; Kull & Torop, 2003; Sebeok, 2001b; Turner, 2013; Thompson, 2007). In Favareau's (2007, p. 2) words, biosemiotics tries to determine the 'relation between mental experience, biological organization, and the law-like processes of inanimate matter' (see also Clayton, 2013). Biosemiotics is trying to deal with the ubiquity of intentionality and communication in living organisms (Hoffmeyer, 2008, p. xiii; Juarrero, 1999). According to biosemiotics, all living organisms participate in semiotic processes, which means that sign processes are constitutive for life (Ibid., p. 4). Biosemioticians question claims that non-human animals are mindless (Ibid., p. 19). In Favareau's view, semiotics entails the interface through which all living organisms deal with the relationship between their own internal organization and the demands of the environment on which they depend (Ibid., p. 24). This also holds for human beings, which is why Cobley (2010b), referring to Sebeok, can argue that 'semiotics is the study of the difference between illusion and reality.' The efforts of biosemiotics to explore meaning-making and meaning-taking in all living organisms inevitably led to its drawing on theories of meaning, which consequently brought it into contact with scholars in the humanities. Consequently, research in biosemiotics caused semioticians and other scholars from the humanities to rethink their anthropocentric assumptions. The pervasiveness of sign relationships throughout the living world (and, for some semioticians, the universe) forces semioticians to rethink their focus on human processes of meaning-making and meaning-taking, and definitely challenges translation studies to reconsider its linguistic, anthropocentric, and cultural biases. Biosemiotics constitutes a rich interface between natural sciences and the humanities, offering an opportunity at dialogue that should not be shunned.

Though still not large and influential, biosemiotics is a growing field of interest at the interface of biology and semiotics, or natural and human sciences. Its relevance lies in its interdisciplinary nature, its search for communication and meaning in all living organisms, its questioning of anthropocentric thought and the comparative opportunities it offers to study meaning processes, i.e. translation, across a wide range of process-phenomena. For my argument, the relevance of biosemiotics lies in its convincing argument that meaning-making and meaning-taking, i.e. semiosis, are not only human processes. It thus extends the ambit of translation studies into, at least, the whole of the biological world.

Biosemioticians draw a number of distinctions between types of semiotics and translation. One such distinction would be the distinction between biotranslation (translation between animals that does not include language) and eutranslation (translation that includes language) (Marais & Kull, 2016,

p. 175). Others draw a distinction between semiosis in plant life (phytosemiotics), semiosis in non-human animal life (biosemiotics), and semiosis in human life (anthroposemiotics) (Sebeok, 1976). In other contexts, the terms zoosemiotics, and even mycosemiotics, are used (Sebeok, 1976, p. 164). For my argument, it does not really matter how one draws these distinctions. The important point is that biosemiotics challenges translation studies as far as its anthropocentric bias, in general, and its linguicentric bias, in particular, are concerned.

In biosemiotics, scholars study the most basic notions of the sign process, i.e. the fact that a sign is something that suggests something else, some other, and that something that is not necessarily directly observable is to be deduced from something observable (Favareau, 2007, pp. 5–7). Semiosis is process, based in process thinking, which argues that substance is not the basis of reality, but rather ‘an intermediate stage in an emergent process’ (Cahoone, 2013; Falkner & Falkner, 2013; Hoffmeyer, 2008, p. 4; Ulanowicz, 2013). In this sense, biosemioticians also deal with the idealism-realism debate, in other words, how living organisms obtain reliable knowledge about their environment so that they can survive. I take up this topic in detail in Chapter 5. This complex process of both constructing and being constructed is as relevant for human beings as for other animals and plants because, if a living organism’s interpretation of the sensory information from the environment is wrong, its survival is threatened. In my view, biosemiotics challenges strong constructivist views that are popular in translation studies. No organism will survive if its knowledge of its environment does not somehow relate to that environment. If my understanding of the speed of a bus differs from the actual speed of the bus when I want to cross the road, I end up as roadkill. If the understanding that I constructed about electricity does not include the point that I should touch an open, active electrical wire, I end up as barbeque. At this point in the history of knowledge, I do not think anyone wants to claim that knowledge is not constructed. It is. However, it is constructed relationally, which is why it is relative. It is constructed in relationship with an Other, be that Other a physical, or material, or biological, or social, or cultural other. Living existence is irreducibly relational, to be constructed in relationship to an Other and, therefore, also constructed, not only constructing.

Hoffmeyer (2008, p. 14) argues that, because life processes are embedded in semiotic relationships, one cannot describe them completely at one level, i.e. the molecular level, but one has to, rather, try to understand them in terms of their meaning, which can only be understood from a higher level of observation. Thus, it is not enough for organisms to observe through their senses; somehow, they have to construct ‘functional interpretations’ (Hoffmeyer, 2008, p. 19) of all of the sensorial information. Semiosis, thus, entails both the physical and the ideational, or what is created by consciousness. It is a Janus-faced process-phenomenon that links the physical with the virtual in a variety of ways. As discussed earlier, when I dealt with the

types of Peircean signs, the link can range from nearly law-like necessity to nearly lawless creativity. This semiotic process is always mediated by membranes, which are both closures and links from and to the environment (Ibid., p. 27). In this sense, translation, or the semiotic process, entails the broad notion of ‘inter’-ing, that is, creating relationships across borders (membranes). Biosemioticians are able to prove that sign processes, i.e. translations, are inherent in all living organisms, even at the level of DNA and RNA, cells and primitive forms, such as viruses (Barbieri, 2007c, pp. x–xi; Hoffmeyer, 2008, pp. 75–107; Markoš et al., 2007). They point out that information or knowledge can generally be coded in one of two ways: analogue or digital. Any change to the way in which any information is coded constitutes a translation. Thus, the digital information in DNA needs to be translated into analogue form in order to be used in the metabolism of the cell, which uses information in an analogue way.

The problem is that, the more we know about biology, the more we understand that the supposedly higher functions of humans (creativity, faith, understanding, language) are (also) biological in nature. I do not claim that they are determined by biology, but rather, I claim that they are emerging from a physico-chemical-biological basis. Now we can ask ourselves: If this is true, couldn’t the converse also be true? Couldn’t ‘lower’ life forms also have consciousness-type capacities? Are our cognitive capacities so unique? Is the kind of self-reflective knowledge that we claim to have the only form of knowledge? If ours is not without biological constraints, someone (thing) else’s may, perhaps, not be as physically chemically biologically determined (instinctive) as we think. The question then becomes: How do we think about these things without anthropomorphism? Can we learn anything from these fellow creatures?

Being alive means to be in a connection of systems and interactions between these systems. These interactions are all physical. One cannot have any interaction, whether within a cell or within a society, that is not physical. Interactions are also and simultaneously something other than physical—and that has to be semiotic. If physics cannot explain all, the rest must be semiotic. Semiosis thus relates to the interaction between living systems and the ‘more,’ which we call meaning. So, what is the more? The more is linking and organization by means of semiosis, sending, and receiving and responding to signs. It is the ability to take A as B, for example, perceiving a particular molecule as an indication to release another molecule. It is the ability to discriminate difference. It is the ability to translate sensory stimuli into meaningful systems in order to survive. There is also a secondary process, which involves recoding coded messages into other codes, another form of translation, or changing the sign by changing the code, or changing the interpretant by changing the code, which are all forms of translation.

Furthermore, any living organism, even living cells and mono-cellular organisms, has to be able to exchange information with its environment through a membrane. At the cellular level, this exchange of information is

largely chemical, constituting what could be called proto-semiosis. It has become common knowledge among biologists that viruses can detect higher concentrations of sugar in a solution and then use their flagellae to move in the direction of the higher sugar concentration. This process entails the semiotic ability to act on information from outside of the organism itself, to the benefit of the organism. Equally, plants have been proven to be able to respond to information from their environment and even communicate chemically with other plants for the survival of the community.

The development of a central nervous system in animals provided them with more developed semiotic abilities than organisms without central nervous systems. Their sensory apparatus also provides them with more (species-specific) information about their environment. Further proof of animals' semiotic ability is their ability to deceive, an ability that Eco (1979, p. 58) describes as the litmus test for semiosis. Thus, chameleons can deceive by means of color. Birds deceive by acting injured, in order to lead hunters away from their nests or little ones. Animals, thus also have the ability to communicate with others in their species and across species, for instance, with humans. Sebeok (2001c, for instance) has argued that, in scholarly thinking, the notion of 'instinct' has become redundant, because all animals respond to information and act on the basis of that information, i.e. they take and make signs and they are able to interpret (in however basic a way) information. These choices are not instinctive but based on some kind of interpreting process in the organism of information from outside the organism.

Biosemioticians all seem to agree that human beings have the most developed semiotic abilities, and they also agree that language is the most complex and developed semiotic code. What they do contest is the notion that humans are the only organisms that have semiotic abilities, that language explains all human communication and that animals are driven by instinct only. In an era of ecological awareness against the background of a global crisis in this regard, in an era when post-humanism has become a buzzword in the humanities and in an era when biologists are looking for meaning in all living organisms, translation studies seems to be weirdly isolated from these developments, focusing on human culture, human power and human society exclusively.

Trying to unite natural and human sciences by means of semiotics, Favreau (2007, p. 23) formulates the following central research question in biosemiotics:

What particular relations in the naturally occurring world does human symbolic understanding exploit differently, say, than primate indexical understanding does, or that the iconic relation chemotaxis affords for the amoeba?

This cryptic overview of biosemiotics within this chapter about semiotics serves to challenge translation studies to an ecological awareness.

4 Conclusion

In my mind, the lack of a general theory of meaning-making and meaning-taking, i.e. a general theory of signs or semiotics, constitutes a serious weakness in translation studies. Semioticians generally and biosemioticians in particular have convincingly argued that, in order to understand the full ambit of communication, the use of language needs to be embedded within a general theory of signs, a theory that explains what is common to all types of signs, not only lingual signs.

In this chapter, I argued that Peircean semiotics allows, if not prescribes, the conceptualization of translation as a technical term that refers to the process of semiosis. This process, in Peircean terms, entails the creation of or change to relationships between representamen, object, and interpretant. In the next chapter, I link this conceptualization to process and complexity thinking to provide a more nuanced conceptualization of translation.

Notes

1. Readers who want details about the historical development of Peirce's thought are referred to the following sources, among others: Corrington (1993); Deledalle (1990); Misak (2004); Rosensohn (1974); Short (2007); Trifonas (2015); Wiener and Young (1952).
2. All emphases in quotes from Peirce are original.
3. When I use the term 'language,' it always refers to natural language, both spoken and written.
4. I do not consider the implications of Peircean thought for artificial intelligence because of a lack of space and time.
5. In Chapters 5 and 6, I consider some of the implications of the claim that semiotic processes are subject to the Second Law of Thermodynamics.

5 Conceptualizing a Semiotic Theory of Translation

1 Introduction

In Chapter 1, I presented data that questions conventional definitions of translation as mainly involving interlingual translation. In Chapters 2 and 3, I argued that both translation studies and intersemiotic translation studies in semiotics are subject to a linguistic bias. Furthermore, work that suggests expanding translation studies to include semiotics is either ignored or limited to interlingual translation. In Chapter 4, I suggested the possibility of a theory of translation that covers all semiotic process-phenomena, not only lingual ones, not only literary ones, and not only human ones. In this chapter, I work out a framework for such a theory, dealing with underlying assumptions, matters of definition and questions of categorization. With this framework, I foresee a translation studies that is able to account for the multitude of ‘inter’ and ‘trans’ process-phenomena that I presented in Chapter 1, as well as the semiotics of knowledge production and the expansion of interpretants, i.e. the emergence of society and culture.

As the previous chapters showed, many scholars from various fields of study have tried to think about the nature of translation from various angles. My contribution to this debate entails addressing the persistent linguistic bias in the field by exploring hints about the semiotic nature of translation that have been made by many translation-studies scholars (including Jakobson), but which, in my view, have not broken with the linguistic bias completely. The previous chapters showed that semioticians have tried to think about the nature of translation from various angles. Once again, my contribution to this debate entails addressing the persistent linguistic bias in the field and exploring the implications of the full ambit of Peircean thought about semiotics for translation. In fact, the conceptualization in this chapter is aimed at preparing for a final chapter on social semiotics or icosis, as Robinson (2016) calls it.

I, thus, see my work as providing a synthesis of work that has been done by different scholars in various fields, but that has not yet been synthesized into a coherent theoretical framework. The unique contribution that I would like to make in this regard is to provide a theory of translation that

scholars could use to study all instances of translation process-phenomena.¹ This means that I am supplementing the inductive conceptualizations that are popular with translation studies scholars, for instance Toury and Tymoczko, with a deductive conceptualization. It further means that, when I talk about translation, I also think about semiotic processes in which language does not play a role at all.

In addition to this synthesis, I develop suggestions by Cronin (2006, p. 340) and Queiroz and his team (Aguilar, Atã, & Queiroz, 2015; Aguilar & Queiroz, 2009a; Queiroz & El-Hani, 2006a, 2006b; Queiroz & Merrell, 2006) propose a novel conceptualization of translation as negentropic semiotic work performed by the application of constraints on the semiotic process. I do this by linking process thinking, complexity thinking, and emergence theory.

A legitimate question that arises from what I have said up to now is, why attack language? Why consider the focus on language to be a bias? What is wrong with a lingual bias in translation studies? Well, I think that there is nothing wrong, *per se*, with studying language in translation studies, but a bias toward language presents at least five problems. First, the terms that I provided in Chapter 1 suggest that scholars from a diversity of fields of study are studying process-phenomena that are typically studied in translation studies. I do not think that it will help translation-studies scholars to bemoan this state of affairs, because they themselves are the cause of it, with their narrow interlingual conceptualization of translation. Rather, they should rectify it by expanding their definition of translation, which is what I am trying to do with this broadened conceptualization. Second, the profusion of new terms suggests that the multimodal/medial nature of communication will only grow in future, leaving a purely interlingual translation studies with less and less to study. Translation studies will also become incapable of studying interlingual translation, because almost no communication is purely linguistic. Third, both theory and data suggest that even humans do not communicate with language only, but also with a variety of other semiotic tools. Fourth, post-humanist thinking argues that humans are not at the center of the universe and that human language is, thus, not the only medium of communication that is worthy of our interest. Last, advances in ecological and environmental thinking require of human animals, including translation-studies scholars, to rethink our relationship with non-human animals, which cannot be done as long as human animals consider themselves and their language to be unique in absolute terms.

I start off by clarifying two sets of underlying assumptions, namely the process nature of semiosis and a number of relevant parameters from complexity thinking that could inform the kind of translation studies that I am proposing. Then, I deal with the task of conceptualizing translation, and last, I consider categories of translation to replace Jakobson's categories, which, I argue, have become obsolete.

2 Translation: Process

Current translation studies seems to operate largely on the assumption that the nature of meaning itself makes translation problematic. That which has to be translated—language, meaning, aesthetic form, etc.—so the argument goes, causes problems for the translation process. That which has to be translated is either too stable or too unstable to be translated. On the one hand, this kind of thinking assumes a static, or at least stable, ontology. In this static conceptualization, reality is seen as (relatively) stable, and the problem that one has to explain is the instability or indeterminacy or change in reality. This kind of thinking posits the problem whether translation is possible and, if so, under which conditions. In other words, if the source text is relatively stable, how would it be possible to destabilize it and then restabilize the destabilization in a target text? Because the source text is regarded as something static and thus having a particular form or structure, the question is whether that form can be translated into a code that does not have the same form, i.e. another language. Without saying so explicitly, this kind of thinking assumes some kind of stable, formalized meaning in the source text. On the other hand, the counterpart of this stability thinking is a kind of relativity thinking, which argues that source texts just appear to be stable, but that they are actually so unstable that their meaning cannot be determined and that the target code is, anyway, unstable too, so that it (the target code) adds to the indeterminacy of the whole process. Typical examples of this kind of thinking would be efforts to prove that language, and thus translation, is unstable, unpredictable, and indeterminate (Quine, 1959, 1960) or that all of semiosis is indeterminate and vague (Merrell, 1997, 1998, 2003a). In this paradigm of thought, translation is largely seen as a process that entails spatial change, exploring the possibility of carrying over meaning from one form to another. In both parts of the binary, translation is regarded as problematic in itself, if not improbable or even impossible. In the first case, meaning is too stable to be changed, and in the second case, meaning is too unstable to be determined anyway, which means, in a practical sense, that it cannot be changed. Yet, translation (intralingual, interlingual, and intersemiotic) takes place every day. How is that possible?

In this section, I propose, based on Peirce, a process ontology in which translation is not the problem of changing one instance of (relatively stable or quite unstable) meaning into another instance of (equally relatively stable or quite unstable) meaning, but the very process that drives meaning, the process through which meaning emerges. Translation is not the problem in meaning-making and meaning-taking, but the underlying process that makes it possible. Translation is the very condition for making and taking meaning. It is the factor that explains how meaning-making and meaning-taking is possible. Meaning is created in one way only, and that is by translating signs into signs. One of the assumptions that seems to underlie the debate about (un)translatability (Apter, 2006, 2013, Budick & Iser, 1996),

namely that creating meaning in a novel in a particular language is unproblematic, but that its translation is problematic, is thus blatantly wrong. The creation of meaning is as much process as the interpretation of meaning, and as the interlingual translation of meaning. From a semiotic perspective, translation is not a process that takes a structure (text) as its point of departure and then tries to destructure and restructure that structure into a different structure. Rather, translation is a process that creates relationships between existing meanings, thereby creating new meanings. Translation is the process by which interpretants are taken as new representamens and then related to objects and new interpretants, *ad infinitum*. This is why I argue that translation is the very process that drives all meaning.

In order to make this argument, I posit a process ontology as worked out by the likes of Peirce himself:

A sign is anything which determines something else (its interpretant) to refer to an object to which [it] itself refers (its object) in the same way, the interpretant becoming in turn a sign, and so on *ad infinitum*.

(CP 2.303)

The focus in the aforementioned quote is on the ‘*ad infinitum*.’ Semiosis is never-ending process. I also refer to Whitehead’s (1985, pp. 208–215) philosophy of process. Process ontology argues that change is primary and stability secondary, rather than the other way around. This means that the problem to be explained in semiosis is not change, but stability, turning on its head the efforts of scholars such as Quine and Merrell. All meaning-making and meaning-taking entails process, which implies change. In this thinking, change or process is a given. What needs to be explained is how process takes form. Against this background, I thus posit a complexity approach to semiosis, in which meaning is conceptualized as process that takes form under certain constraints. In this view, meaning entails both process and form; however, I take process to be primary. Meaning is achieved by translation, and without translation, there is no meaning. In my conceptualization, this translation does not take place between stable meanings; rather, meaning is itself a never-ending process of creating relationships between meanings, which relationships-creating process is constrained so that it takes a particular (more or less temporary) form or trajectory. In this conceptualization, a source text is a process, and so is a target text. The relationship between them is also a process. Meaning is not inhibited or lost with change, rather, it is change. It is a process of changes that make meaning possible. Meaning entails change, process, being in the process of being created, but never finally created.

To give expression to the process nature of semiosis, I propose changing the terms ‘source text’ and ‘target text.’ Except for the lingual bias in the notion of ‘text,’ source, and target are spatial categories and too indicative of stability. Rather, I suggest the terms *incipient* and *subsequent* sign systems.

This terminological change allows one to conceptualize, not only lingual process-phenomena as translations, but any semiotic process-phenomena. Also, it indicates that the semiotic system that is, for any particular observation, chosen as ‘source’ is incipient for that observation only. It also indicates that the incipient sign system is itself part of a process. Neither is the ‘target’ the end of the process, but just a subsequent sign system in a larger process. In another process, the subsequent sign system could become an incipient sign system for another translation. It is important to remember that both incipient and subsequent sign systems are recognizable trajectories or habits or forms in processes—they are not stable things.

This thinking is in line with process ontology in both the natural and human sciences. If one takes into account the basic arguments in fields such as physics, biology, and semiotics, they all seem to indicate that reality is process, and relational process at that. Einstein’s relativity theory, Gödel’s indeterminacy theory, Schrodinger’s uncertainty principle, the realization that DNA translation into protein is the process underlying the metabolism of life and the implications of the Second Law of Thermodynamics for cultural and social systems, all indicate that reality is not stable with some indeterminacy and instability. Rather, reality is process, moving, emergence with some patches of stability, structure, or form. I thus repeat that the problem to be explained is not instability and indeterminacy, but stability and determinacy. In line with what we know about reality, I argue for a process ontology in the humanities in general and in translation studies in particular.

One of the underlying principles of process thinking is that all of reality is subject to the Second Law of Thermodynamics. The Second Law, which is actually not a law but a tendency, determines that all states of affairs in reality show a general tendency toward entropy, i.e. lower levels of energy, less organization, more chaos. One of the philosophical implications of the Second Law is that it introduces what is called the ‘arrow of time’ into physics, chemistry, and biology—and semiotics. This means that, under the Second Law, time becomes relevant because thermodynamic processes are not completely reversible. One cannot, for instance, reverse the process of aging, or you cannot turn protein back into DNA. This means that social and cultural processes for humans are also, to some extent, irreversible. To put it simply, you cannot undo history. Put differently, history never repeats itself exactly. As translation-studies scholars know, a back translation is never exactly the same as the incipient text.

Living systems exist through countering the Second Law, by maintaining their levels of energy compared to their environment. They do this by manufacturing their own energy by drawing raw materials from the environment. This process is called negative entropy, or negentropy, and it entails work that is directed against the direction of entropy (Deacon, 2013, pp. 208–287). The natural way for reality is thus entropy, which can only be countered by work, i.e. negentropy. Work could also entail work on information, which includes all of semiosis. This means that, given this conceptualization

of negentropy, culture can be seen as the effect of semiotic work, a view suggested by Lotman (1990, 2005) quite a while ago. Meaning-making and meaning-taking, thus, entail performing work on information (including meaning), and this is how culture, i.e. the meaningful responses that human beings create in response to an environment, is created. In this conceptualization, the process of semiosis is linked to the metabolism of living organisms. Just as life assumes the continuation of metabolism, if not in a single organism, then in the species or the biosphere as a whole, meaning-making assumes a stream of semiosis into which individual organisms (including human beings) are born. For an organism, the stream of semiosis ends at death, but for humanity as a whole, the process continues.

For living organisms, meaning starts in its interaction with its environment through a membrane (Marais & Kull, 2016). Because the information from the environment has implications, for instance, it can involve something to eat or it could mean being eaten, this information is meaningful for the survival of the organism, which is the starting point of semiosis. This proto-semiosis is obviously expanded and becomes more complex in higher life forms. However, all living organisms participate in this process of translating meaning. In humans, these translations are complex, but they maintain the negentropic work to create meaningful responses to an environment, leading to the creation of society and culture.

Just like with the universe, which was initially energy only and which became matter only as the energy cooled down, semiosis initially is potentiality only. In this conceptualization, the thing to explain, the thing to marvel at, is neither the process nor the form, but the process through which the process takes form. We need to explain the way in which some possibilities, out of all the possibilities, are realized, materialized, and structured. An incipient sign system is a materially constrained and, thus, a structured instance in the never-ending semiotic process. An incipient sign exists by virtue of the ability of human beings to materialize meaning into form. Human culture and society is, thus, the materialization of the ephemeral semiotic stream. This is what we need to explain. How does it happen that, from the universal stream of meaning and information in humanity, this particular text has materialized in this particular way? What were the constraints that distilled the chaotic soup of meaning into this form? What is the nature of form, and how does it constrain the meaning, and to what effect? I thus conceptualize meaning as a chaotic stream that has to be given form by living organisms in order for it to be ordered to manageable proportions.

It is important to point out that the nature of the change in process ontology is both spatial and temporal, actually, seen as space-time in the most recent thinking. Change in space would always be relevant to translation studies, because space is a constituting factor of reality. However, the Second Law introduces time as a major relevant factor in the creation of meaning, and I would, thus, argue that semiotic change, i.e. translation, would always be driven by time—and only sometimes by space. As Whitehead

(1985, p. 209) argues, based on Bergson, thinking in terms of space is easier than thinking in terms of time. Translation, thus, needs to be conceptualized in terms of change in time. For instance, a word that is repeated in exactly the same way half a second later would not have the same meaning as the first instance, because of the lapse in time.

Therefore, meaning is a continuous, never-ending process of creating relationships between representamens, objects, and interpretants, *ad infinitum*. Being a relationship-creating process, it is obviously not stable, not determinate, not certain. Rather, it is characterized by instability, indeterminacy, uncertainty. This is so both because it is process and because it is relational. Because it is a process, it means that it is moving all the time, changing all the time. Because it is relational, it means that its existence is always co-determined by that to which it relates. Thus, as the etymology of the word ‘relative’ indicates, everything is relative because everything exists in relationship to everything else. Reality, thus, consists of ever-moving, ever-being-created relationships.

My earlier arguments about the process nature of semiosis raise questions concerning the directionality of translation. In his recent work on semio-translation, Robinson (2016, pp. 26–34) also raises this question concerning Gorfée’s claims that translation is a unidirectional and cumulative process. One of the objections that seem to be common sense in this debate is that the outcomes of translations can be changed. One is easily able to change one’s mind about an interpretation of a novel or a news report or a testimony in a court case. Furthermore, when one thinks about open systems, of which all semiotic systems are part, the question about feedback inevitably arises. If one, then, claims that translation is a unidirectional process, does that not deny the reality of systemic feedback? Furthermore, is it also not commonsensical that translations can be wrong—and thus not cumulative? Do all translations contribute to better understanding, or is it possible that some translations can obfuscate understanding?

These are real problems that cannot be ignored. The first point to be made is to confirm that all systems that are subject to the Second Law of Thermodynamics, including semiosis, are unidirectional in the sense that history does not repeat itself and that you cannot unscramble an omelet. However, one simultaneously has to keep in mind that living organisms operate *contra* the Second Law, and that semiosis is, thus, driven not only by entropy, but also by negentropy. This means that work can be done on any interpretant in order to counter the effects of that interpretant. Thus, one can reinterpret a text if that text causes racist actions, or one could change the meaning of a chauvinist statue by wrapping it in pink, for instance.

However, this does not mean that semiotic systems are subject to all physical laws in the same way that purely physical systems are. As far as they emerge from physical systems, semiotic systems are obviously subject to physical laws, but while you can engage a motor vehicle in reverse and get it back where it was ten minutes ago, you cannot ever get your interpretation

back to where it was ten minutes ago. Note that, while you would get the vehicle back where it was, the tires would have more mileage on them, fuel would have been burnt, and there would be two sets of tracks, which means that the process is not completely reversible anyway. Thus, certain things can be undone, but other things can only be redone. You can resay something, but you cannot unsay it. You can rewrite something, but you cannot unwrite it. You can reinterpret something, but you cannot uninterpret it. You can retranslate something, but you cannot untranslate it. This means that the semiotic process differs in significant ways from physical, chemical, and biological processes, albeit it emerges from those processes. For instance, all living things must die, but meanings do not have to die. They can, like Walter Benjamin (2004) famously claimed, live forever by being retranslated. This is probably the biggest reason why all efforts to model semiotic systems on either physical systems (fluid mechanics) chemical systems (fractals) or biological systems (life) are limited. The semiotic domain of reality emerges from the physical-chemical-biological but, being an emergent phenomenon, has features that are different from the features of those domains, features that are unique to the semiotic domain. The ‘new’ features have emerged through new constraints, new organization, and the creation of new relationships, which means that nothing has been added—except organization and constraints. These features and the way in which translations cause them, form part of the interests of translation studies.

Translation-studies scholars have much work to do to think through the implications of the aforementioned for the field. Just as one does not want to reduce culture to matter, one also does not want to reduce matter to culture. The complex interplay of the implications of the Second Law of Thermodynamics for cultural systems, thus, still has to be worked out in translation studies. In Chapter 6, I start an attempt in this direction, but much needs to be done.

To get back to the point about feedback and changing the trajectories of semiotic processes. Sure, later meanings can feedback into earlier meanings and influence them. Sure, through agency, living organisms are able to change the trajectories of semiotic processes. This is why semiotic phenomena can be redone, but not undone. Even if we claim to undo a legal sentence after someone has appealed to a higher court, the person’s semiotic trajectory will not be the same, having spent time in jail, etc.—a point that also holds for the vehicle in my earlier example.

In earlier work, I modeled translation process as eddies in a stream (Marais, 2019), claiming that the eddies are both patterns (or forms) and process. I still think that this model has merit—to demonstrate the complex interplay between process and form. However, I grant that it is limited in other respects. Colleagues suggested using the model of a tidal river mouth instead of a stream, because of the back and forth flow of the water. However, this models repetitiveness, not feedback into a unidirectional system. Feedback should change the system while the repetition of patterns does

not necessarily change the system. In this regard, strange attractors (Deacon, 2013, pp. 182–205) are more accurate for modeling the patterns of semiosis, but even they so not do justice to the diffusing features of semiosis. I think that doing justice to the semiotic process in any one medium is impossible. One needs a multi-medium representation, because semiosis is a four-dimensional process linked rhizomatically to an indeterminate number of incipient and subsequent processes. One, thus, actually needs a computer simulation to come to some kind of representation that honors the complexity of the semiotic process. Stecconi (2010) tried to model translation, although conceptualized differently from the way I did it, by means of a wave. I think his model has huge merit, but to me, the physicality of his model limits the links that biosemiotics has found between semiosis and organism. Thus, I rather propose that one does not limit one's conceptualization of translation to one model. I think that each model might provide one point of comparison only because translation is such a complex process. Apart from the possibilities mentioned earlier, you could, for instance, also conceptualize semiosis rhizomatically as an organismic triple helix of representamen, object, and interpretant, woven together in the web of organism experience. As a rhizome, this triple helix has indefinite and non-linearly connected streams of incipient triple helixes and subsequent triple helixes. It is a web (another model) of meaning in which matter and mind are woven into an infinite process. This process is based on the metabolism of organismic life (another model) that is in constant interaction with its environment and only stops at death. The process is, therefore, also subject to the Second Law of Thermodynamics, meaning, among others, that time moves in one direction only and that a subsequent semiotic process cannot fully reproduce an incipient one.

Rather than taking the optimistic road that Peirce took, I view entropy and negentropy, particularly in semiosis, to be in complex relationships of contestation. Consequently, translation need not be cumulative. From a certain perspective, as Robinson (2016) argued regarding science, one could argue that translation contributes to better and clearer understanding, thus, being cumulative. However, I cannot see that one would be able to take the role of semiosis in one field, science, and expand it to all forms of semiosis. Consider the degeneration of a marriage—or any other relationship. In this case, translation, or semiotic process, degenerates into misunderstanding and even misrepresentation. The same would hold for political discourse or even bad movies, art, or music. In my view, the process of translation itself does not guarantee anything, except that it is historically irreversible. The outcome of the process is contingent upon the constraints that are operative on a particular translation or set of translations.

As indicated in the discussion of Peirce's notion of translation, the semiotic process or semiosis is maintained by translation. Peirce, as far as I have read him, does not go into further detail in working out exactly what translation would entail. It is here that I think I could contribute, within

the framework of Peircean thought, to a more detailed conceptualization of translation. So, given the Peircean conceptualization of translation as process, which assumes change, I would conceptualize translation as any negentropic work that causes change to any part of the semiotic triad, or the relationships between them, or the time and space of their occurrence. This change could be of any nature: additive, subtractive, spatial, temporal, etc. Thus, the sign, being a system of relations, a web of relations if you will, any change or movement to any of the relations will reverberate throughout the whole web. The point is that the outcome of all semiotic process is the creation of interpretants, i.e. interpretation. Any change in any aspect of the process is, thus, due to change the outcome, i.e. the interpretant that results from the semiotic process.

2.1 *Semiotic Process*

I have referred to semiotic process quite a number of times. This aspect of semiotics now needs more attention, as it is crucial for a theory of translation. In this section, I explore mainly the work of Floyd Merrell, who has written extensively on semiotic process.

For Merrell, semiosis is about the motion that lies behind the never-ending change that characterizes meaning (Merrell, 2000a, p. 1). He formulates the perpetual moving nature of semiosis elegantly (Merrell, 1997, p. 60, 1998, pp. 58–59, 2000a, p. 2):

In short, from position to velocity to acceleration, signs cannot help but reach out to other signs, interrelate with other signs, become translated into other signs, with the ongoing flow of semiosis.

Merrell (1998, p. xii) follows Peirce in arguing that ‘sign and meaning changes occur as a process of translation, of signs incessantly becoming other signs.’ Like the linguistic anthropologist, Marcell Jousse (2000, Marais, 2010), Merrell (2000a, p. 1) sees reality in motion, which takes on rhythm, which underlies the ways living organisms ‘discover and learn and invent.’ In this kind of process thinking, the focus shifts from things to processes, from things to the ‘inter’ between things. This stream of semiosis is tightly linked to the stream of consciousness (Merrell, 2000a, p. 70). Merrell (2003a, p. 166, 1998) points out, furthermore, that one should keep in mind that the semiotic process is not linear. Rather, it is usually a non-linear process that needs to be explained from a complexity perspective. The non-linearity of the semiotic process is the very reason why a back translation can never be identical to the source text. It is linked to the Second Law of Thermodynamics, which introduces the irreversible arrow of time, into not only physics and biology, but also into meaning. In this sense, I think Merrell (2003a, p. 167) is correct when he says that a sign is not something that statically ‘stands for’ something else, but rather a process, which, in Merrell’s

words, ‘codependently emerges’ through the interrelation of representamen, object, and interpretant. Apart from the semiotic interrelations between the triad of semiotic elements, a sign also emerges, in that it is being made and being processed in a particular space-time continuum. Semiosis is the ‘interplay’ between the three modes of existence, namely possibility, actuality, and potentiality (Merrell, 2003a, p. 169). In this way, semiosis itself entails complexity, in that it refuses to reduce either ontology or epistemology to either the possible, the actual or the potential, but rather acknowledges that reality as we know it is an interplay, a complex weave in Deely’s words, between these modes. I once again quote Merrell’s (1998, p. 143) eloquent phrasing:

Each translation of a sign component does not leave an arc on the Cartesian plain but describes the beginning of a spiraloid in three-dimensional space: with each completion of the cycle we are never back where we began but somewhere else along the spiraloid.

Meaning is not there, to be discovered. This much is well-known. However, meaning is not constructed as if there is no text in this class. The construction of meaning with the emphasis on the constructing agent and the relativity of the construction is currently the antidote to the static view of meaning as being out there to be discovered. Merrell’s thought transcends this by means of a move toward complexity thinking (Merrell, 2000a, p. 7). In his view, meaning emerges from chaos by a relational process in which the meaning-maker constrains (not determines) the process by making meaning in a particular way, and in which the meaning-taker constrains the process by taking meaning in a particular way. It is an emergent process constrained not only by meaning-maker and meaning-taker, but also by the nature of the representamen that is created and by the space-time context in which it is done. All of these causal factors play a role in the emergent meaning. It also means that meaning is never fixed, in a final, absolute sense. Sometimes meaning has to be fixed temporarily, such as in a court case or when a referee makes a decision in a sports match, for pragmatic reasons. This does not, however, mean that the meaning is fixed forever, because the meaning of the temporarily fixed meaning again engenders another process of meaning.

Because semiosis is a process, meaning is something that emerges through the interaction of semiotic agents (Merrell, 1997, pp. x–xi). Signs are always in the process of being engendered, of becoming, of being related. Signs are always ‘in translation.’ The word that we see or hear is not a sign. It is only the vehicle that sets the sign process in motion. It allows the semiotic agent to relate it to an object and to mediate between it (the representamen or sign-vehicle) and the object by creating an interpretant. This observation leads one to the historic and spatial relativity of all sign process. The process is also relative to the material form of the representamen, the nature of the

object and the agent that creates the interpretant. Consequently, semiosis is complex in a multiplicity of ways. For Merrell (2000a, p. 69), like for Peirce, signs are in a continuous process of change into, hopefully, more engendered signs, and he calls this process translation.

Another implication of the nature of the sign process is that meaning is indeterminate, vague, general, inconsistent, incomplete, and both over and underdetermined (Merrell, 1997, p. ix). This means that the principles of formal logic do not apply to meaning (Ibid., p. 8). Rather, meaning is a phenomenon with a unique kind of logic. Merrell argues that the three pillars of formal logic, namely the laws of the excluded middle, non-contradiction and identity (Ibid., p. 10, 1998, p. xi), do not apply to semiotic processes. He points out that, for actuals, the laws of classical logic might apply; however, possible phenomena, such as meaning, do not necessarily follow this logic (Ibid., p. 33). Because a representamen 'stands for' something else, it is simultaneously what it is, and a sign of what it is not, i.e. something else.

One of the best metaphors for explaining complex processes is that of fluid mechanics. Merrell uses the notion of a vortex (Merrell, 2003a, p. 179), in some cases, and in other cases he explores the Mobius strip as a metaphor for complex semiotic processes (Merrell, 1998, pp. 50–53; 2000a, pp. 97–99). Exploring the notion of vortex, which has a center that is simultaneously everywhere and nowhere, the notion of border, which simultaneously links and divides, and the notion of membrane, which simultaneously creates difference between self and other and links self and other, Merrell comes to his conclusion that the laws of formal logic do not apply to semiotics. The implications of this conclusion is that meaning cannot be studied by logical tools only. Somehow, scholars of meaning need to explore non-rationality and, therefore, need to develop methodological tools to do so. In this regard, I shall explore Peirce's notion of degenerate signs in Chapter 6.

Apart from being in motion, living organisms, according to Merrell (2000a, p. 6), are interdependent, interrelated, and interactive with one another and their environment. His ontology is, thus, inherently relational, which explains the relativity of not only knowledge, but also being (Merrell, 1998, p. 10). When something is related, it is not complete in itself, it is not a monad. This means that its existence is relative to other things. In particular, meaning is never monadic. It emerges through complex interrelationships and through relationships between relationships. Thus, the meaning of any part of the semiotic process, i.e. a particular representamen, cannot be separated or conceived of apart from the whole of the semiotic process. In practice, one cannot conceive of the whole of the semiotic process, which is why meaning is always limited, and our understanding of meaning is limited. Merrell (Ibid., p. 11) explains it in the following eloquent way:

A sign is separated by a 'cut' from its object in some irretrievable present. But its interpretant emerges only mediately, since there can be no immediate consciousness of a sign as such. In this manner, an interpretant

is an interpretant not of a sign in any raw, unmediated present, but of a sign in the next moment, which, by the time it has become a sign for some interpreter, has been mediated.

Thus, the representamen is co-determined by its relationship to the object. This relationship co-constrains the representamen. Similarly, the representamen co-determines the interpretant by its relationship to it. This leads to a mediated relationship between interpretant and object, mediated through their relationships to the representamen. Nothing means in itself or by itself—things acquire meaning by being engendered into this relationship-creating process called translation.

A third key point of Merrell's insight into semiotic process is his insistence that semiosis is concrete and bodily, rather than abstract and logical (Merrell, 2000a, p. 7, see also pp. 29–34 for more discussion). This insight leads Merrell to coin the term *bodymind*, and even *bodymindsign* (Merrell, 2000a, p. 63), to indicate the unity between these phenomena that we tend to view as separate things. Thus, Merrell (2000a, p. 63) argues, there are three general classes of thinking:

(1) conscious, cognitive, conceptual, intellectual, involving chiefly signs of symbolicity and explicitness, (2) tacit doing of the *bodymind*, consisting chiefly of implicitly made and taken signs of indexicality and iconicity, and (3) visceral evocations and responses, at the deeper most level of feeling.

The problem with translation studies, and most of the humanities, is that it focuses on class one (with perhaps some attention to class two), but it virtually ignores class three (see also Merrell, 2000a, pp. 61–63). In this regard, Merrell (1998, p. xii) refers to logocentrism, ocularcentrism, and linguicentrism as three biases in Western scholarship that limits its ability fully to understand meaning. Merrell (*Ibid.*, p. 13) makes a very strong claim: 'The universe of signs is actually as non-Cartesian (and non-Saussurean and non-Boolean, to boot) as Riemann geometry is non-Euclidean.' As I shall argue in Chapter 6, to understand social and cultural phenomena, we need to find ways of studying them at the level of class two. In other words, we need to find ways of understanding meanings that cannot be expressed in words, and we need a way to find out how they were translated into which forms. Then, we need to find ways to translate them into language—or do we? This point relates to the argument that signs are only to be regarded as full-blown signs when they engender an interpretant (Merrell, 1997, p. 29). Peirce, however, did provide for de-engendered signs, and these are what I shall explore in Chapter 6. Peirce refers to focal and subsidiary attention, which is related to the tradition of tacit knowledge, as conceptualized by Polanyi (Merrell, 2000a, p. 54). This is a field that has been left largely untouched by translation-studies scholars, while it is the basis of some of the most

significant translations in human society. Some work, such as Bourdieu's notion of habitus in translation studies, which might deal with unconscious choices, and work in professionalization studies, might be exceptions here. As Merrell (1998, p. 48) argues, if one holds a linguicentric position, you will not see the need for intersemiotic translation. Also, you do not see the need to articulate (linguistically) what has not been articulated, and which cannot be articulated. It is exactly this gap in current translation studies that I try to address in this book.

In several of his writings, Merrell points out that there is a human tendency, also by human scholars in the humanities, to 'linguicize' or symbolize all signs (e.g. Merrell, 2000a, p. 17, see also the discussion on pp. 109–117). This tendency underlies the linguistic bias in translation studies against which this book rallies. A quick Google search with the keyword, 'olfactory,' should give the reader an indication about how little translation studies has been involved in translation outside the auditory and visual modes. Given the full scope of meaning-making tools that Peircean semiotics provides, the implication is that language or symbolic forms of making meaning are but a small part of the wide range of possibilities for meaning-making. With compelling evidence from neurosciences, Merrell (*Ibid.*) argues that iconic and indexical signs are not only the basis for symbolic signs, and that symbolic signs contain many features of iconicity and indexicality (*Ibid.*, p. 35), but that most—even human—meaning-making is done with signs of iconicity and indexicality (Merrell, 1997, p. 52). In case readers get the idea that I (or Peirce, or Merrell) wish to shun language completely, I have to point out that this is not the case. Peircean semiotics provides amply for language, i.e. symbolic signs. The way in which Merrell renamed Peirce's ten categories of signs shows this, in that the last five types of signs all have -saying in their names (see Section 2). So, indexes contain more information than icons, and symbols contain more information than both icons and indexes. The most developed sign, in Peircean terms, is the argument, i.e. a logically structured, complex array of signs that provide ample information about the object. Compare this to an icon, which provides information on likeness only, or to an index that indicates the existence of a fire without specializing where, how large, or of what nature. So, no one contests the notion that language is able to convey large quantities of information (Merrell, 2000a, p. 444). The argument is that language is not the only mode of meaning-making, and that it is based on iconicity and indexicality. Also, the argument is that iconicity and indexicality provide organisms with kinds of information that language cannot convey.

3 Translation: Complex Semiotic Process

I started working out some of the implications of complexity thinking for translation elsewhere (Marais, 2014, 2019; see also Naudé et al., 2018 for an example of the kind of work I have in mind). This section, thus, entails

a development of previous work. Conceptualizing translation in terms of complex adaptive systems provides translation-studies scholars with more nuanced and rigorous conceptual tools with which to study translation. The features of complex systems have been discussed widely, and I do not delve into a general discussion of complexity here. Rather, I focus on the contribution that complexity thinking could make to conceptualizing translation, and to methods for studying translation. In particular, I reflect on the implications that the notion of constraints in complexity thinking might have for translation.

Complexity thinking is radically historical in that it endeavors to explain the emergence of reality over time. It assumes chaos or nothingness as the origin of everything and posits that, from the first moment of existence, chaos has been taking habit or shape; first, through energy cooling down and taking form as matter, and second as matter being organized into life forms. Emergence entails that reality, in all its variety, arises from basic building blocks through new forms of organization and new relationships. This means that matter emerged from energy and that life emerged from matter and energy. Similarly, the ability to make and take meaning emerges from living matter-energy, i.e. living organisms. Semiotic ability is not something that has been added to life, just as life is not something that has been added to matter. Rather, by virtue of being organized in a particular way, by virtue of taking a habit, by virtue of taking a particular trajectory, some matter has the characteristic that it is alive, and some live matter has the characteristic that it is conscious—and some conscious matter has the characteristic that it is linguistically conscious. The aim of a complexity approach to translation is, thus, to find ways of explaining the emergence of semiotic organization, habit, trajectory, pattern that arises through translation processes.

Emergence is typically explained as operating in two directions, namely upward and downward (Bedau & Humphreys, 2008; Deacon, 2016; Holland, 1998). Upward causation is what is best-known in the natural sciences and exemplified by the adage that the whole is more than the sum of the parts. Upward causation assumes that wholes have parts and that the way in which the parts are organized or related brings about the newness at the level of the whole. Thus, two atoms of hydrogen and one atom of oxygen, if organized and related in a particular way, form a water molecule. Nothing has been added to the three atoms, except that they are now in different relationships to one another. Equally, some of the words of the isiXhosa language can be organized in a particular way to create the novel, *Ingqumbo Yeminyanya* [The wrath of the ancestors] (Jordan, 1941). Nothing has been added to the words except organization and new relationships between the words. Thinking in terms of upward causation only, however, could lead to reductionism, because the whole could still be studied in terms of its parts.

In contradistinction to upward causation, the notion of downward causation has been considered. This view argues that the whole also have

causative effect on the parts. For instance, in sociology, it has been argued that being part of a particular society, e.g. Protestantism, affects people's work ethic (which means that the whole [society] affects the parts [humans]), or, in psychology, one could argue that psychotherapy effects the chemicals in the brain (once again the whole [thinking] effecting the parts [chemicals in cells]). The problem with downward causation, in particular in physics and chemistry, is that it entails circular argumentation, namely that the parts that have caused the whole are now being caused by the whole (Bedau, 2008; Kim, 2008). Scholars have also raised problems of supervenience, namely, that two phenomena with the same parts cannot have different properties (Chalmers, 2008; McLaughlin, 2008).

In order to overcome problems with downward causation, Deacon (2013) presents an ingenious argument based on the development of the notion of 'zero' in mathematics and some philosophical arguments in, among others, Buddhism. Rather than trying to explain Deacon's mathematics or philosophy, I dive straight into the ways in which he applies this to emergence. Deacon invites us to imagine absence, just like the number zero. For instance, a wheel cannot turn unless there is a hole (absence, something that is not something) in the center of the wheel. He then asks us to consider the conditions under which we are able to say that the hole (the absence) is one factor that makes the wheel turn. Should one grant this argument, one can then claim that the hole has causative effect on the wheel, making it turn.

Having made this argument, Deacon proceeds to argue that things that do not exist materially, which he calls absential things or 'the absential,' have causal effect on things that do exist materially. These would be things such as meanings, values, and intentions. He, once again, invites us to assume that, at any initial moment, a state of affairs contains an unlimited number of possibilities. Once one or more of these possibilities have been realized, the state of affairs can no longer have unlimited possibilities. The reason for this limitation is that, by realizing some possibilities, some other possibilities have been excluded. Deacon then invites us to consider the unrealized possibilities (the things that did not happen—in his term, the materially absential) as having causative effect on what can happen next. Let us assume someone driving somewhere, let us say, from Johannesburg to Cape Town in South Africa. At the point of departure, the driver can take any of a number of routes to reach her destination. However, once she has made her first choice, she excludes some possibilities, which means that she now has fewer options left by which to reach Cape Town. Let us also assume a farmer buys five acres of land. Once it is hers, she has, given initial conditions, such as climate, soil, vegetation, water, etc., a whole number of possibilities for using the land. Once she has realized one of them, let us say she plowed the whole piece of land and planted strawberries, she is limited in what she can do next. Thus, the possibilities that have not been realized constrain the farmer in what she can do on her land. The fact that she did

not plant corn, for instance, means that she is constrained to the extent that she cannot keep cattle.

Through introducing the notion of absence, in the same way as mathematicians introduced the notion of zero, Deacon circumvents the problems of downward causation by locating the power of downward causation, not in the whole, but in the constraining effects of the unrealized possibilities. It is, thus, not the whole that constrains the parts, but the unrealized possibilities, the things that did not happen, the things that did not come to be—the absential. In this way, one can have downward causation without the problems of a circular argument and the logical problems of supervenience (for responses to Deacon's thinking and his responses to the responses, see Barrett (2015), Bokulich (2015), Cassell (2015), Deacon (2015), Hoffmeyer (2015), Neville (2015), and Pryor (2015)).

Deacon (2013, pp. 371–420) goes further, to argue that one can perform work on information and meaning and, in this way, create culture. By applying this to my thinking about semiosis and negentropy discussed earlier, I can argue that culture is created by translation as negentropic work on semiotic information, i.e. meaning. Culture thus emerges through translation as negentropic work, both upward and downward. In the emergence of cultural forms or habits, work is done to constrain the chaotic stream or web of semiosis to a particular form, which then accrues meaning, because of the causative effect of semiotic possibilities that have not been realized. In a movie, for instance, the camera angles obtain and give meaning, among others, by virtue of the angles that have not been taken, and in drawing, negative space is a well-known concept. In music orchestration, the meaning of particular instrumentation is determined by the instruments that could have been chosen, but were not.

In this section, I argued that translation entails a complex semiotic process, one that takes form, habit, trajectory, or pattern. In my view, then, translation scholars should study the emergence of these semiotic patterns. These patterns will be the effect of negentropic work performed on semiotic processes, as suggested earlier. Methodologically, the following are some, but not all, of the aspects that could be relevant.

Apart from upward and downward causation, complexity thinking also explores notions such as initial conditions, boundary conditions, and attractors to explain factors in emergence. Initial conditions refer to the state of affairs at the beginning of a process, while boundary conditions refer to the factors that limit a system. For instance, when considering a game of pool, the initial conditions would be the number of balls and their positions on the table, while the boundary conditions would be the size of the table, whether it is 100% leveled, and the nature of the felt lining. Initial and boundary conditions form the backdrop against which particular trajectories emerge. To explain the emergence of trajectories through translation, one has to consider the notion of attractors. In thinking about attractors, scholars in complexity thinking have realized that certain processes, in reality, show

relatively but not exactly similar trajectories. For example, in a landscape, water will tend to flow toward the lowest point on the landscape, but not all the water will end up in the lowest point, and not all water will flow to the lowest point at equal speed. The basin in the landscape, thus, acts as an attractor, with most, but not all, of the water ending up there or flowing through it. The lowest point is, thus, an attractor in the sense that the water tends to flow toward it. The notion of attractor was introduced in complexity thinking to explain this tendency to follow a particular trajectory, and also to maintain the fuzzy nature of the tendency (see, for example, Nicholis & Nicholis, 2012). This concept becomes important when one wants to study patterns in translation, for instance patterns that relate to the effects of translations on societies. The notion of attractors allows one to see similar tendencies without claiming that each occurrence is exactly the same as all others. In this way, one maintains a complex view of universality and particularity, as well as of cause and effect.

In terms of the process ontology and the parameters of complexity thinking that I have set out earlier, the implication is that everything, semiotically speaking at least, is related to everything else. This leaves us with a problem, because no human brain (or artificial intelligence)² can understand everything. All knowledge and understanding are built on the assumption of fallibility and limitation, and, perhaps more fundamentally, on choosing to focus on certain things to the exclusion of others (in part, because attention is limited). A philosophical position that holds that everything is related to everything else might thus be possible theoretically, but it does not allow for the study of phenomena and processes in reality. It is at this point that Salthe's (Queiroz & El-Hani, 2006b; Salthe, 1993, 2009, 2012) proposal for observation in terms of hierarchical levels makes a huge contribution. Building on the Peircean phenomenology of Firstness, Secondness, and Thirdness as discussed in the previous chapter, Salthe argues that one starts an observation by choosing a first level of observation (pertaining to the requirements of the argument that you want to make). In terms of Peirce, then, this first level is contrasted with a second level, in terms of which you become aware of difference. This second level is the part that constitutes the level of observation. When considering the contrast between whole and parts, one can only understand this relationship when mediating it from a third level, namely a level that is one level higher than the level of observation. This abstract model, like systems theory, gives one a conceptual tool to study any process-phenomenon at any level of observation, always positing the next higher and next lower levels as the most causally relevant levels to study.

4 Translation: Negentropic Semiotic Work

Translation is, thus, a negentropic semiotic process of performing work on meaning by effecting constraints (see Section 3 and Marais, 2019) on the possibilities of meaning. With this addition, I should reframe the

conceptualization of translation that I presented in the previous chapter: Translation is the technical term for the negentropic process that drives semiosis. The nature of the stability that semiotic forms take is to be conceptualized complexly. The stability is stability at the edge of chaos. It is stability in the sense that the flow of semiosis takes patterns or habits. The meaning of a text is, thus, a materialization of semiotic patterns in relationship to one another, but it is still part of the greater process of semiosis and, thus, not stable in itself—it is just relatively stable. The moment someone reads a text, it enters the stream of semiosis again, as embodied in that particular reader.

In the context of complex semiotic process, what does translation entail? As indicated in the previous chapter, translation refers to the process aspect of semiosis. What does this process entail? In previous work, I argued that translation refers to the ‘inter’ between signs (Marais, 2014). While I still think that is a correct view, I have for quite a while been uncomfortable about the question, so what does ‘inter’ mean? ‘Inter’ between what, and what is the nature of the ‘inter’? What is being ‘intered,’ if you could excuse my bad English. Semiosis, as conceptualized by Peirce, is the creation of relationships between triads of representamen, object, and interpretant. In this conceptualization, ‘inter’ is, thus, the creation of relationships. Relationships are what are between things or ideas. Relationships are what ‘inters’ between things or ideas. The semiotic stream means that there is a continuous process of creating relationships, of linking, of association, between representamen, object, and interpretant. That is how meaning-making and meaning-taking works. All signs are, thus, in relationship to other signs, with some being stronger relationships and some weaker ones, some being highly relevant and some less so—and I presume also some unconscious ones. The ‘inter’ of translation does, thus, not refer to being ‘in between,’ but to creating relationships between (inter) signs and between signs and things and between signs and ideas, etc. Signs are thus not things, and meaning is thus not a thing. Signs are relationships between, and meaning entails relationships between.

Consequently, a translation could be conceptualized as any movement or change in either space or time to the existing relationships between any representamen, object and interpretant, or the creation of any new relationships between any representamen, object and interpretant. Creating new relationships between a computer device and the word ‘mouse’ entails a translation through which the computer device is brought into relationships of existing knowledge and meaning. This new object is, thus, translated into consciousness by relating it to existing systems of meaning. Changing the word ‘mouse’ into the Afrikaans word ‘muis,’ thus, changing the representamen but keeping it in a similar relationship to the object, the computer device, also entails a translation, because the relationship between representamen and object has changed code. Rereading JM Coetzee’s *Waiting for the Barbarians* ten years after reading it the first time also entails a translation, because it entails changing the interpretant of that text, just because

time has elapsed and because one cannot recreate all the semiotic relationships that were created during the first reading in exactly the same way.

Translation also entails any change to the space or time in which that translation process takes place. The Peircean conceptualization of semiosis is deeply pragmatic, which means that meaning is made under the constraints of a particular context, not in a logically abstract way. The theory of translation that I am proposing here is not based on logical semantics, but on pragmatic meaning-making, aimed at survival and (if you are lucky and if you make and take meaning effectively) thriving in an environment. Thus, moving a statue from one place to another, as is currently happening in South Africa, where there is resistance to statues of apartheid politicians, changes the meaning of that statue and, thus, entails a translation. In recent student protests, the statue of former state president CR Swart was toppled from its perch in front of the law building at the University of the Free State. University management decided to relocate the statue to a museum, thereby changing the meaning of the statue radically, not only because of the historical events and the meaning that both protesters and management added, but because the statue is now in a new set of semiotic relationships with its new environment. Equally, movement in time entails changes to meaning. An interpreter in 1980 and an interpreter in 2017 would not be able to form the same interpretant of CR Swart's statue, because the political relationships that gave the statue its meaning in 1980 no longer exist, and the political relationships that give the 2017 interpretant its meaning did not exist in 1980.

The next question would then be, Relationships between what? At a very basic level, one can say that translation is a process of creating relationships between representamen, object, and interpretant. However, Peircean semiotics entails that representamens, objects, and interpretants can be quite complex. The final category of signs that Peirce identified is a whole argument. So, what would such an argument entail, semiotically, and how can it be translated? In terms of a process ontology, any artifact or phenomenon that one is able to perceive, i.e. a difference that makes a difference, would entail some kind of habit or pattern. Let us assume, for the moment, a statue of Nelson Mandela. In order for it to be recognized as a translation of Mandela, one would need to be able to perceive patterns that are similar to the features of Mandela, for example, a raised arm with a clenched fist, a Madiba shirt, his tall physique, his facial features. Mandela's face, for instance, is a semiotic pattern that can be discerned from other semiotic patterns. If you want to translate a photo or your memory of Mandela into a statue, you need to identify the patterns of the materiality of Mandela, such as his broad smile, and translate those into a statue in such a way that it resembles Mandela, i.e. an iconic sign. However, Mandela was not only a body with material features. He was also a human being with a personality and a politician with an ideology. It would, therefore, be possible to discern patterns of meaning in Mandela the person and Mandela the politician. In this way, translation is about considering the whole range of the semiotic

landscape, from material to virtual, and even including the fantastic. The translator then selects semiotic patterns that have been materialized or patterns that she can imagine. Based on those, and under the constraints of the medium into which she has to translate, and the aim (*skopos*) of the translation, she decides what semiotic relationships to continue, what to modify, what to discontinue, what to create afresh. In this sense, Eco (2004) is correct when he talks about translation as negotiation. Any translation is a negotiated settlement, because, in any translation, something has to be translated but not everything can be translated.

It is important to note that the negotiation is not only determined by the semiotic material itself. Sure, semiotic material varies, and this might have an influence on the translation process. However, semiotic material is always in process and, thus, indeterminate, vague, and unstable. The crucial point is that the nature of the translation process is, to a large extent, determined by the constraints under which the process takes place. Therefore, a translation process that takes place under the constraints of a legal context has to be different from one that takes place under the constraints of an architecture context. In the legal context, the context requires that translations be 'faithful,' as close to the original as possible and of an equal legal nature. Even though this kind of 'copy' is not possible semiotically, the context is able to decree that a translation is equal to an original (Hermans, 2007). In my view, the point of translation studies is not to point out how indeterminate, vague, and unstable the semiotic process is, but rather to study the constraints under which these processes become determinate, stable—or not. The 'equivalence' or lack thereof, therefore, is not located in the nature of the semiosis through which the translation is created, but in the nature of the social relationships, which are also semiotic, which constrain the process. In the next chapter, I try to explore this process in a bit more detail. Similarly, in the case of architecture translation, the process is constrained by social relationships that expect creativity and originality, neither of which is possible in absolute terms in the semiotic process. However, within the social constraints, this is deemed possible, which is why an architecture translation could be praised as of high literary value and originality. Equally, in the case of legal translation, the process is constrained by social relationships that expect fidelity and trustworthiness, neither of which is possible in absolute terms in the semiotic process. However, within the social constraints, this is deemed possible, which is why a legal translation could be regarded as equal in status to the incipient text.

When one thinks about translation from a Peircean perspective, one has to conclude that anything in reality could have a translational aspect that could be studied. A claim such as this usually causes at least two rejoinders. First, the accusation would be that I am turning everything into translation. This would be a gross misunderstanding of what I am trying to do. I am not arguing that everything is translation, but that everything in reality, as it enters the web of semiosis through the relationship-creating process of

translation, could have a translational aspect to study. Second, a legitimate concern can be raised about the fact that such a broad conceptualization renders the term translation virtually impossible for empirical research. It would be impossible study the whole of reality every time one wants to study something. This concern means that I have to provide some kind of conceptualization about types or categories of translation, which would then render empirical studies more feasible. I turn to this task in the next section, well aware that neat categories could be reductionist in themselves.

Semiotically speaking, therefore, a change in any of the four dimensions of existence, i.e. any change in space or time, entails a translation. Any development from one, to two, or to three-dimensionality entails a translation of the representamen that will lead to changes in the interpretant and, perhaps, also in the object. The soccer ball on the field and the same soccer ball in the trophy cabinet of the club champions do not mean the same thing. The one means a thing with which to play a game. The other means, at least, the thing with which the game was won and is, perhaps, a symbol of the victory itself. Any change in the dimension of space thus entails a translation that influences the interpretant. Furthermore, any change in time has a bearing on the representamen. If someone asks me who won the 2016 presidential elections in the USA and I say 'Trump,' and this person says, 'What?' and I repeat 'Trump,' the second representamen (Trump, just as the first one) would lead to a somewhat different interpretant. The first interpretant may have been 'The candidate called Trump' while the second one could have been 'Yes, you heard me!' Similarly, the meanings of Robben Island or Guantanamo Bay may have changed through time, because historical events contribute to the 'universe of the mind' and the 'horizon of expectations' with which we interpret signs.

Once the process nature of translation has been established, the nature of the questions one asks in translation changes. First, the question about equivalence, also prevalent in intersemiotic translation, is rendered irrelevant. In process thinking, change is complexly linked to form, but the exact duplication of form, even form of process, is not possible, due to the arrow of time as conceptualized in the Second Law of Thermodynamics. So, the question is not, what kind of equivalence will ensure that one can still talk about a translation? Rather, the question is, in this translation, how does the process unfold? How is the process constrained, and by what?

I can then formulate my definition of translation as follows. Translation is negentropic semiotic work (performed by an agent) in which any one or more of the components of a sign system or any one or more of the relationships between them are changed, or in which the relationship between the sign and its environment (time and/or space) is changed. This means that if the code is changed, a translation has taken place. If time has lapsed between two interpretants being created, a translation has taken place. If the space has changed between two interpretants, a translation has taken place. If the representamen is changed, a translation has taken place. If the object

is changed, a translation has taken place. If the interpretant is changed, a translation has taken place. In the next section and the next chapter, I work out some of the implications of this definition.

5 Translation: Toward Categories

When considering categories of translation, the first task is to find a categorizing principle. In other words, on which basis do I create categories? Because I situate translation in a process ontology, I think the first principle for categorization should be the four dimensions of reality, i.e. the three dimensions of space and time. All translation takes place within the confines of these dimensions, which means that they should form the framework for thinking about translation. While space and time provide the conditions under which translation takes place, they might, therefore, not provide categories in the strict sense of the word. However, I argue next that they do, indeed, provide some conceptual framework within which to work.

A second principle would be to go back to the Peircean conceptualization of semiosis as the creation of relationships between representamen, object, and interpretant. Translation would, thus, entail any change to any one of these three and, in terms of the process noted earlier, any change to the relationships between them. One can then link this conceptualization of change to the four dimensions from the previous paragraph. Any change to any of the three aspects of the sign or the relationships between them or any one of the four dimensions will cause a translation. Based on these two principles, I propose three categories of translation, namely representamen translation, object translation and interpretant translation, which I discuss in greater detail next.

I do believe, however, that it is necessary to explain a number of caveats concerning categories of translation. While I see and appreciate the need for finer categories, especially for the sake of empirical research, I need to point out that, from a complexity perspective, I am, at the same time, hesitant about categories or types. Reductionist scholarship typically cuts up reality into neatly separated parts or types and tries to explain each of the parts or types. From a complexity perspective, reality would be way too messy (read 'interrelated') to come up with these kinds of neat conceptual categories (Morin, 2008). I am, thus, torn between the urge to leave translation as broadly conceptualized as possible, and the expected pressure to provide categories. In the end, I do suggest some rather fuzzy categories, because a complexity approach would, indeed, hold that the choice between reductionism and complexity is not binary, but complex. Furthermore, because Peirce pointed out that perception and thinking are fallible and limited, one cannot perceive and think about everything. The limited nature of my perceptual and conceptual abilities and the limited ability of a reader to read a book, all mean that writing about everything is not possible. Knowledge of everything is not possible. I am, however, trying to categorize in such a way

that the categories remain fluid and adaptable to phenomena and events that are interrelated, or that we may not even know of yet. In fact, I am suggesting categories of process, not of substance.

The categories are, therefore, only a rough indication and not a detailed characterization. Because semiosis is a complex, fuzzy, and messy process, thinking that one would be able to provide clear conceptual categories would be a mistake. I am looking for categories that would be workable, not absolutely clear in terms of logic. The categories are, therefore, pragmatic and processual rather than logical.

Another reason why categories of translation are problematic is because translation is about relationships. Peirce made it clear that the sign is not the representamen. Rather, the sign or the sign process is the relationships into which the representamen, object, and interpretant are brought. This means that neither representamen nor object nor interpretant is the sign. It also means that neither representamen and object nor representamen and interpretant nor object and interpretant entail the full sign process. One only has a full sign process when all three elements of the process are being related. This particular facet of the sign process, i.e. translation, can thus be modeled as a spider web. Imagine the three axes of the semiotic triad connected by extremely thin threads like in a spider web, the semiotic links. Like with a spider web, the slightest touch to any one of the threads reverberates throughout the whole. It is, thus, inevitable that the slightest change to a representamen could entail changes to both object and interpretant, and vice versa.

I would, thus, suggest that one categorizes types of translation according to the focus of the process of change or the origin of the process of change, and not according to the substance (the 'what it is') of the translations. This means that, just like the categories of Peircean signs, a given category of translation is always related to other categories, because it does not indicate a different 'type' or a different process or phenomenon. Rather, a category of translation, in this conceptualization, is indicative of the origin or the focus of the change process. Recall the metaphor of a spider web. A touch at the top or at the bottom could be characterized as such, but that is only where the reverberations originate or where it is focused; nevertheless, the change is felt throughout the whole web, and the change causes changes throughout the web. A change to a representamen, thus, inevitably causes changes to both object and interpretant. Similarly, in translation, a change to or the creation of meaning could start with either representamen or object or interpretant, but, to adapt the adage, a change to one is a change to all. The categories are, thus, categories of process, that is, categories of focus or categories of origin in the process, not categories of types of things. The categories mean that some translation processes are initiated by a change to the representamen, others are initiated by a change to the object, and yet others are initiated by a change to the interpretant. However, as the process unfolds, neither of the three elements remain unchanged. Semiotic change literally reverberates throughout the whole semiotic web.

For example, the word, dog, can be said in a monotone way, or with the same volume and intensity, but with a rising tone toward the end. These two utterances of the same representamen would lead to two different interpretants, the first one being a statement and the second a question. It would also render two different objects, the first a dog and the second the possibility of a dog. In this case, the change in time has triggered the translation process to cause a change in interpretants. Consider, next, that I observe something that looks like a frog. Because I am not sure, I give one careful step forward to get closer to see whether it is a frog. The only things that have changed is that I moved a yard forward in space and that two seconds have elapsed. I then see that it is not a frog, but a mouse. The small change in space and time has changed the representamen and has drastically changed the object and the interpretant. In this way, I explain that the sign relationships, namely between representamen, object, and interpretant, as well as the relationships between the sign and space-time are where translation takes place.

I think it is also important at this point to indicate that, for Peirce, the semiotic triad is an abstract schema that can be applied to any set of semiotic data. So, a word could be a representamen with an object and an interpretant. However, a word could also be an interpretant, or an object. Similarly, a novel could be a representamen or an object or an interpretant, and a culture or world culture could also be a representamen or an object or an interpretant. Size does not matter in this instance.

The categories of translation refer to both process and phenomenon. I propose this with the explicit understanding that phenomena are the relatively fixed patterns that process takes, as argued earlier. As indicated earlier, I conceptualize translation as the creation of new semiotic relationships by means of changes that are required, first, because of the movement of time, second, because of movement in space, third, because of the relationships between the three elements of the sign and, fourth, because of changes to either representamen, object or interpretant.

Apart from the issues raised earlier, the theoretical framework that I propose renders Jakobson's categories of intralingual, interlingual, and intersemiotic translation obsolete as, in the proposed framework, all translation is intersemiotic translation, i.e. translation between (inter) semiotic systems. My conceptualization also renders Gorlée's (1994, 2003) notion of semio-translation obsolete, because all translation is 'semio'-tic. It would, thus, not make sense to maintain these categories, unless one wants to argue, like Robinson (2016), that semiotranslation is a particular type of translation—a position with which I do not agree, based on the arguments I present in this book. I also have to point out that the use of categories such as 'intra' and 'inter,' when thinking of systems, are always relative to the level of observation. Thus, for the distinction between intra and interlingual translation to hold, one needs to assume languages as the level of observation. Should one take literary texts as the level of observation, one would have to come up with categories of 'inraliterary' and 'interliterary' translation.

Thus, to some extent, the notions of intra and inter do not solve the problem of types of translation. Systemically speaking, all systems have an 'intra' and an 'inter' and an 'extra.' I am, thus, not looking to conceptualize intra, inter or extra categories of translation; instead, I argue that all translation is between (inter) systems and, from a different perspective, inside (intra) smaller systems and, from yet another perspective, extra (outside) larger systems. I suggest the categories intra-systemic, inter-systemic, and extra-systemic translation, without specifying what the system has to be. Any system with semiotic features is thus subject to intra-, inter-, and extra-systemic translations. The point is that the system to which translations are inter, intra or trans-entails a choice, which means that what might be inter from one perspective, might be intra from another.

Translating an opera into another opera that uses only children's voices would, thus, be inter-systemic translation for the system of operas, but intra-systemic as far as systems of voices are concerned. Were you to translate the opera into a drama, it could be regarded as an extra-systemic translation, translating. Another example would be the ability to perform intermusical, intramusical, and extramusical translation. In the first case, you would translate between musical systems, e.g. translate a symphony into a folk song. In the second case, you would be able to translate within a particular genre, let us say rework a folk song from a marching tempo into a waltz tempo. A transmusical translation would, thus, mean that you translate a piece of music into, for instance, a sculpture. In the same way, one could have inter-painting, intra-filmic, trans-dance, or any other kind of translation. Translation is the creation of new semiotic links between incipient sign system(s) and subsequent sign system(s), irrespective of what those systems are. The categorization of those systems will always be fuzzy, because semiosis is inherently relational, which means that its features cannot be analyzed reductively or categorized clearly. It is just not possible to be clear about exactly what kind of translation has been committed when, for instance, a movie has been translated into a board game.

Conceptualizing intra-, inter-, and extra-systemic translations is based on Salthe's three levels of observation that I discussed in detail in Section 3. Deciding to observe a particular aspect of the larger semiotic web does not mean that semiotic cause and effect are limited to that web. The web at the level of observation is relationally linked to an immediately lower and an immediately higher web, which are both again linked to higher and lower webs, ad infinitum. There is no law that states how far the reverberations of a particular change can be felt and can have causal effect.

I now proceed to consider each category of translation in detail.

5.1 Representamen Translation

Translation can take place by changes to the representamen, i.e. the sign-vehicle. These changes usually entail changes to the material nature of the

representamen. For instance, one may need to change a spoken representamen to a written representamen, or one may need to change a danced representamen to a painted representamen, or one may want to do as little as change some aspects of the danced representamen into other aspects of a danced representamen. In these cases, the change is to the material nature of the representamen, either because of necessity, or because of play, or both, or some of the one and some of the other. It is a translation of Firstness, of what is observable, of what is possible.

Translation of the representamen are what is currently studied in translation studies, adaptation studies, multimodality studies, and multimedia studies, and it accounts for most of the ‘inter’ and ‘trans’ phenomena I listed in Chapter 1. These kinds of translation investigate how changes in the representamen affect the interpretant and object. Actually, all three of Jakobson’s categories can be explained as representamen translations, because a particular language is a code in which a representamen is cast. A change to that code will change the representamen with changes to, to various extents, the object and interpretant. Thus, interlingual translation is a form of representamen translation.

I suspect that this category of translation lends itself to subcategories. In Peirce’s doctrine of signs, a representamen can be either material or mental. Thus, any material thing could, in reality, be a representamen, as can any mental phenomenon. This means that any change to the materiality of the representamen entails a translation. Thus, for animal semiosis, plants excluded, the five senses would serve as basic categories for translation. If the representamen changes from visual to auditory in its appeal on the senses, one would have a translation that would affect the interpretant. Thus, listening to a sound bite of student protests on radio will result, in the same person, in a different interpretant than when the person watched visual footage of the same protest on TV. Similarly, olfactory information about a dish will lead to a different interpretant than auditory or visual information about the same dish. As a last example, tactile information about the skin of an elephant will lead to a different interpretant than olfactory information about the same skin. Thus, I suggest that one could have at least five subcategories of representamen translation, namely visual, aural, tactile, olfactory, and gustatory. In this regard, Kandamkulthy (2018) made similar suggestions when talking about videosigns, audiosigns, odosigns, tactisigns, and delisigns in the context of neural plasticity.

Because representamen translation deals with the materiality of the representamen, this materiality can also be used to create categories. This means, simply, that one can take any medium or mode (I am not getting into the debate about which term is preferable) as a category of translation. Thus, one can have music translation, literary translation, dance translation, and architecture translation, keeping in mind that all these categories refer to the materiality of the representamen in the translation.

At this point, I need to return to interlingual translation. Sure, interlingual translation is a subcategory of (representamen) translation, and should translation studies wish to keep it as its sole domain of study, this would be a theoretically valid choice. However, based on the theory I have set out, I predict that this choice will run into problems on at least two scores. First, as I have indicated on a number of occasions, the current developments in information technology will render purely written-language texts a rarity in the not to foreseeable future. A translation studies limited to interlingual translation will, thus, find itself limited in conceptual scope. Furthermore, the fact that verbal language is increasingly accompanied by visual aids, such as PowerPoint, for instance, shows that it will be a matter of time before even interpreting studies will have to develop an interest in matters semiotic. I am not even talking about the implications of artificial intelligence on interlingual translation, or the growing tendency for translators to be mediators of knowledge, not language. Second, because the theory explains that representamen translation does not take place in isolation from object translation and interpretant translation, a field of study or a theory that focuses on the representamen only will always be a partial theory. The semiotic process is too complex to favor any one aspect thereof.

A factor that is relevant to representamen translation is the notion of code (Kourdis, 2018). In the Peircean definition of semiosis, something stands for something else to someone ‘in some respect’ or ‘on some ground.’ This means that the semiotic relationship is always grounded in some kind of logic. In language, the conventions of the particular language, say English, forms the code in terms of which ‘dog’ stands for a four-legged mammal of the canine persuasion. Under the conventions of Sesotho, the code determines that the word ‘ntja’ should be used to refer to a four-legged mammal of the canine persuasion. In an indexical sign, some kind of cause-and-effect relationship determines the code, e.g. smoke as a sign of fire. In an iconic sign, shared qualities determine the logic of the relationship. The implication is that any change to the ground or code under the auspices of which a representamen relates to an object will change that relationship, as well as the relationship of both representamen, and object to the interpretant. This is why a change in representamens in interlingual translation, e.g. replacing ‘dog’ with ‘ntja,’ does not necessarily lead to the same object or the same interpretant.

In this interpretation, then, all the ‘trans’ and ‘inter’ phenomena that one finds these days have in common that they refer to a change in the materiality of the representamen, and each minute change inevitably has an effect on object and the resulting interpretant.

The representamen can also be purely mental (*ens rationis*), such as a thought, an idea, or a dream. It goes without saying that even mental representamens are based in a material substrate, namely the brain. However, these mental representamens themselves are not material, and they can also be the origin of translation processes—and more often than not, are. Thus,

private thinking, without communicating it to others, is also a form of translation, with one thought giving rise to a next. This process can, however, also go further. The thoughts can be communicated, for which some shared material interpretant, such as sound or visuals, is needed. The thoughts can also be translated into actions, such as having a vision about something and acting to fulfill the vision.

To summarize, representamen translation entails any change to a semiotic process that originates with or focuses on the representamen, its relationships to the object and interpretant or the space-time in which the process occurs, whether the representamen is material (*ens reale*) or mental (*ens rationis*).

5.2 *Object Translation*

Translation can also take place by changes to the object, i.e. the other to which the representamen stands in a relationship. One could have a new object that has to be provided with a representamen. A great example of such a case is Eco's (1997) discussion about the platypus. In similar fashion to Latour (1993a), who describes Pasteur 'finding' germs, Eco describes the translation of the platypus, first into mammal, then into bird, then into reptile and then into a new category as full understanding dawned. Scientific and technological advances continuously bring us new objects, like quarks, Boson-Hicks particles, and strings, which we need to translate into a relationship with a representamen in order to come to some kind of understanding (interpretant) of it. Sometimes, the object moves in space, changing its meaning. For example, a dog might be a companion in one place and food in another. Equally, if the object moves in time, its meaning is being translated. Thus, the sun in 1500 BCE would not be the same object as in 2017 CE. It is the same thing, but not the same object. It was translated into a god in 1500 BCE and into a star in 2017 CE.

As an aside, this point highlights the ethical implications of Peircean semiotics. Not only is it a relational way of thinking but also it always entails an Other. Saussurean semiology, which is steeped in modernist idealism, does not necessarily theoretically allow for the Other because it conceptualizes signs only in their relationships among themselves (Robinson, 2016). In Peircean thought, signs mean because of their relations among themselves (which are already Others), and also because of their relations to the Other as the environment, the Secondness of reality.

To return to the object: Any change in the object, whether dynamic or immediate, will have an effect on the interpretant. If I change the color of my house from blue to brown, the meaning of the house will change for me, or for any other interpreter. If the road between Cape Town and Johannesburg is changed to become a broad interstate highway that does not pass through little towns, the meaning of traveling between Cape Town and Johannesburg will change, because of changes in the object of the signs

process. In this way, changes in the dynamic object could lead to changes in the immediate object, i.e. the object as known. It is clear from Eco's discussion on the platypus that changes in either the dynamic or immediate object led to changes in the interpretant. Thus, as the platypus has a beak (dynamic object), led it to being categorized (interpretant) as a bird (immediate object). When it was found that it suckled its young (a change in the dynamic object), scientists were forced to recategorize (interpretant) it as a mammal (immediate object). The categorization as mammal then, again, led to expectations, such as a uterus and warm-bloodedness. In this way, as Deely says, neither matter nor mind have privilege in weaving the semiotic web of experience, but in a complex way, both are woven together through semiotic relationships, in such a way that now the one, then the other, both play the dominant role. Because Peirce argues that the object determines the representamen, it follows logically that any change in the object will cause a change in the interpretant, i.e. a change in the object entails a translation.

Cases where specialist knowledge from research is made accessible to the general public would also count as object translation. In the medical field, translation specialists are a well-known phenomenon. However, communication between domains in society could also fall in this category, because of the need to explain objects in one field to specialists in another field. Imagine new findings in the field of *in vitro* fertilization and the need for lawyers to understand these findings in order to write new laws. Callon et al. (2011), for instance, write about translating engineering decisions for the public in what they call 'technical democracy.' This kind of translation will probably become more relevant in the future, also in development thinking (Lewis & Mosse, 2006).

Because Secondness seems to have become a major problem in current humanities and translation studies (Robinson, 2016), I will spend some time on a more detailed discussion of John Deely's semiotic realism, which could provide clarity and a way forward from the solipsism of idealism. In Chapter 6, I take up this matter when I discuss the role of translation in the emergence of the social.

5.2.1 *Semiotic Realism*

John Deely, who died in January 2017, was a semiotician-philosopher who left us with a considerable legacy of writings, including his magisterial work, *Four Ages of Understanding* (Deely, 2001), in which he traced the development of a doctrine of meaning, from ancient Greece to Umberto Eco. Among other things, Deely was interested in epistemology and the role that semiosis, and thus translation, plays in the creation of knowledge (Deely, 1986, 1992, 2009a, 2009b; Deely et al., 1986a, 1986b). For Deely (2007, pp. xiv, xx), postmodernism is not defined by the epistemological notions of relativity and deconstruction, as is often assumed, but by the realization that 'communication is a part of reality, that intersubjectivity is something

real.’ This realization is achieved with the growth of theories of meaning and communication, rendering experience in terms of the intersubjective creation of meaning through communication. This intersubjective creation of meaning and its communication are constitutive of the existence of living organisms. My aim with this very brief overview is not to introduce the reader to Deely’s thought per se, of which I am not an expert, and which is, anyway, too broad for such a short overview, but to explore the implications of his epistemology/semiotics/philosophy for a theory of translation.

Deely works at the interface of philosophy, semiotics, and epistemology. He (Deely, 2001, 2007, 2010) explores the age-old epistemological debate between idealism, which he calls the way of ideas (Deely, 2009b, p. 133 ff; see also Deely, 1986, 2009a; Deely et al., 1986a, 1986b) and realism, and suggests a complexity alternative, namely semiotic realism (Deely, 2007, p. xvii). Criticizing both idealism (Deely, 2009b, pp. 133 ff.), for its solipsism, and realism, for its epistemological naivety, Deely seeks a complexity solution that is able to allow ideas as well as reality to play a significant, though not always equal, role in the construction of meaning (knowledge). In the process, he argues that ‘reality is hardcore as well as socially constructed’ (Deely, 2009b, p. iii). One would also be able to translate his term ‘semiotic realism’ into either ‘idealist realism’ or ‘constructive realism,’ because he maintains the irreducibility of both reality and idea (Deely, 2007, pp. 200–204). To my mind, this offers a viable alternative to the idealist notions of constructivism that are rife in translation studies (Pym, 2016) and the humanities, though it does not revert back to naïve forms of positivism, while allowing for Pym’s call for some form of empiricism to overcome the danger of egotism and solipsism in humanities scholarship.

A Peircean at heart, he (Deely, 2009a, pp. 300–310; Deely, 2009b, pp. iii–iv, 79–107) explores the core concept of relationality as the basis for the construction of meaning. From various angles, he explores the claim that meaning, and thus knowledge, is created relationally between a representamen, object, and interpretant, which also means that knowledge is not, like modernist idealism claims, the product of each human being’s mind in isolation (Deely, 2007, p. xx); rather, knowledge is always relational, which is why it is relative.

The ‘aboutness’ of human consciousness, along with the modes of intentionality throughout nature, are made possible in the first place by the singularity of relation as the only mode of being not confined to ‘reality.’

(Deely, 2007, p. xxvi)

Knowledge is not relative in itself, but relative because it emerges out of complex relationships between sign-vehicles, reality or concepts of reality and meaning-making agents (Deely, 2007, pp. xx–xxxiv). Deely’s complexity perspective entails that human experience is a complex web of

relationships, woven semiotically between reality (that which is independent of the human mind) and mind, and that it is impossible to say exactly where the one ends and the other begins (Ibid., p. xxxiii). Also, Deely argues that mind-dependent being (*ens rationis*) and mind-independent being (*ens reale*) entail an 'irreducible mixture,' to form the web of experience (Ibid., p. 76). For Deely, relationships are not part of the things or objects that are related; rather, relationships are intersubjective (Ibid., pp. 124–133), i.e. based on the subjective characteristics of things, or suprasubjective (Ibid., pp. 135, 145; Ibid., 2009a, p. 301; 2009b, pp. 69, 207, 212)—i.e. over and above the things themselves. Intersubjective relationships would be, for example, the blueness in two blue book covers. The relationships are established because of the subjective characteristics in each thing. Suprasubjective relations refer to the relations that comprise a sign, i.e. the relations between representamen, object and interpretant. The relationships do not depend on something subjectively in either of the three elements that are related, but are rather over and above those subjectivities. In Deely's (2009b, p. iv) view, relationships are the only mode of existence that is able to overcome the divisions that are inherent in the subjectivities in nature. It means that all things exist in the world as interdependent (Ibid., p. vi), that no form of existence is absolute in its subjectivity. Deely also shares the insight that relationships cannot be reduced because they do not have parts (Ibid., p. 73); thus, meaning cannot be reduced to any part. The process by which these relationships are established and continue to be established is translation.

In a reversal of the common use of the terms subjectivity and objectivity, Deely calls things as they are (and unrelated to humans knowing them) 'subjective,' that is, they are subjectively what they are, and things, once they are known, he calls 'objective' (Deely, 2007, p. 155, 2009b), that is, they are objects of knowledge. For him, reality, thus, consists of things and objects. Things exist independent of human knowledge and can become objects when they become the object of human knowledge. Some objects are also things, but there are also pure objects, i.e. the objects of human knowledge, like unicorns, that are not things, i.e. that exist only as constructs of the human knowledge process. Things become objects exactly through the translation process, namely by being related semiotically to interpretants.

In Deely's view, philosophy, as rational philosophy, has played out its role in Western thought. It needs to be replaced by semiotics or a semiotic philosophy that is able to consider more than the mere rational. It needs to consider meaning-making and meaning-taking. Deely argues that true postmodern philosophy is neither constructivist nor deconstructivist, but constituted by the realization of the foundational role of communication in ontology. The human being is, thus, not (only/mainly) a rational being, but mainly a communicational being. Communication is constitutive to existence and to knowledge. Here Deely seems to be quite close to Latour who, in his sociology of science, argues that 'things' become facts through

intersubjective scholarly communication. Deely (2009b, p. 80) makes the important argument that animals live in a world of objects only. They know ‘things’ only in their relationship to themselves, i.e. as objects of their experience. It is only humans who have the ability to know things subjectively, i.e. in the way the things are. With measuring instruments, we can determine features of a thing (say, a brick) that are not directly related to our survival. With chemical analysis, we can determine the micro-components of the brick, and with an electron microscope, we can ‘see’ the atoms in the brick. Thus, Deely (*Ibid.*, p. 86) makes the following claim: ‘It is not too much to say that experience is precisely the process of turning things into objects and objects into signs.’ Once again, this is a translation process.

Deely shares the Peircean notion that meaning is a process of relating three elements, i.e. a translational process. In particular, he is interested in the way the translation process integrates mind-independent reality and mind-dependent reality. Deely is a realist in that he takes sensorial information as the starting point of the semiotic process. Thus, a ray of light (representamen) that falls on a retina provides the brain with purely sensorial, physical information. This representamen needs to be related to an object, i.e. something other than the ray of light that determines the ray of light, let us say a blue surface. The interpreter then creates an interpretant by relating the ray of light and the surface from which it was reflected, interpreting it as water, a blue wall, etc. In this way, Deely argues, things from mind-independent reality become objects in the human mind, i.e. through a translational process (Deely, 2007, p. 35). Knowledge of mind-independent reality is, thus, constructed in a translational process through which purely physical sensorial information is semiotized into meaning. Meaning is thus created relationally, i.e. relationally to mind-independent reality and relationally to mind-dependent reality. This is why all meaning is relative, because it is relational—it is never complete in its own right.

However, the mind does not only know mind-independent reality. It also creates mind-dependent reality, and knows it. Thus, the mind knows phenomena such as the abominable snowman, the tooth fairy, and the unicorn. The difference between objects and things is, thus, that the former is completely mind-dependent, while the latter is mind-independent and can become objects, i.e. semiotic phenomena in the mind. In this way, Deely steers us between the Scylla of idealism and the Charybdis of realism with his notion of semiotic realism, which is, in essence, a complexity approach that relates idealism and realism in a semiotic relationship without favoring either (2007, pp. xxvii, xxxi). This relationship is not exact and, therefore, Deely (*Ibid.*, p. 99) says the following:

The distinction . . . between *ens reale* and *ens rationis* need not and cannot be correctly and exhaustively drawn once and for all for all objects of experience.

In his 2007 book, Deely (2007, pp. 3–6) explores intentionality as part of the relationality of consciousness. Consciousness is ‘about’ something other than itself, i.e. it is not solipsistically closed in on itself, but relationality about something ‘other.’ Thus, consciousness, which is itself physical, is able to produce wholly immaterial objects. The existence of these objects, Deely (*Ibid.*, p. 16) argues,

Transcends entirely neither the world of material individuals nor dependence upon the bodily organs of the animals as material substances, but which, nonetheless, makes the objects of animal awareness exist for the animals as somehow part of their own being and yet known in their otherness.

It seems that Merrell (1998, p. 150) agrees with Deely (2009b, pp. 106–107) that meaning does not start in the brain, but with the bodily senses. Deely attacks Husserl’s views on intentionality, which limit the latter to the workings of the organism’s consciousness. From a biosemiotics perspective, Hoffmeyer (2008, p. 29) supports this claim, arguing that interaction through a membrane is the most basic semiotic activity, relating something to something else that is not present, and acting upon an interpretation of those relations. It is important for Deely (2007, pp. 28–29) to include the otherness of the thing or object known in this process. In Deely’s view, Husserl’s position would still end in the solipsism created by modernist idealism. This can only be overcome by true postmodernism, i.e. semiotics in its ability to create relationships.

The reasons why I believe Deely is important for the debate in this book are the following. First, Deely provides a comprehensive theory of the translation process underlying human knowledge, or epistemology. Latour demonstrates this in his work, but never theorized the semiotic assumptions of his thought, except for one reference to Greimas. A theory of translation, thus, has to start with epistemology for all living organisms, as Sebeok and Danesi (2000) confirm. Translation theory entails, at a very deep level, the living organism’s dealings with what is other than itself, with reality. If reality is reduced, as in idealism, to ideas in the mind of the organism or to construction only, there is no basis left for ethics and humanity, at least not if delivered into the hand of egotists.

The problem with constructivism is that, ethically and epistemologically, it erases the other, leading to solipsism and egotistic notions. It poses the constructor as a god-like agent who creates in her own image. The reality of existence is rather that it is a continuous interacting and interdependent struggle, that we are constructed by other as much as we construct, that we are being made as much as we make, that our knowledge is constrained by our materiality, i.e. senses, body, endocrine system, brain structure, which means that we have been constructed and are being constructed. Also, we do not just construct, we co-construct. We construct in negotiation. We

weave a world between ourselves, others of our species, other species, and the non-living material world. Merrell (2000a, p. 46) puts it eloquently: ‘for our world is fashioned and fabricated as well as found.’

5.3 Interpretant Translation

Translation could also take place when the interpretant is changed. These would be cases where the representamen is the same, but the aim of the semiotic process is to come to a new interpretation, i.e. to create a new interpretant. Reading a novel for a second time would be such a case. The text of the novel is the same, and it is ostensibly about the same object. However, because time has passed, or space has changed, or, for some reader-response reason, someone wants to challenge the existing interpretant, one can start a new translation process, looking to come to a new interpretant. In another case, a judge in a court of appeal is asked to review the legal interpretant that a previous judge has made, to check whether it holds, or an advocate could present a judge with a reinterpretation of a previous judgment. At a very mundane level, a sports referee could consult with the TV referee (in tennis, cricket, rugby, soccer, for instance) to see whether her interpretant holds against the evidence provided by technology that supersedes human perception. In this quest to confirm or change the interpretant, the whole semiotic process is actually opened again, with the focus on testing the interpretant against the representamen and object provided by the technology. As Latour (2007) also argues, scientists question and re-question the interpretants of other scientists, until some kind of pragmatic consensus is reached and a particular interpretant is declared ‘a fact.’

As indicated in Chapter 4, Peirce distinguished three interpretants, which can also be used to categorize interpretants further. These are the immediate interpretant (the idea the sign creates in the mind of the interpreter), the dynamic interpretant (the action or artifact caused by the sign) and the final interpretant (everything that can be learned from the sign). Concerning the linguistic bias against which I have been railing in this book, I need to point out that neither the immediate nor the dynamic interpretant needs to be lingual. They can just be the awareness, on seeing a stop sign, that one has to stop (without thinking about it) or putting your foot on the brake pedal (without thinking about it).

In this type of translation, an interpretant is taken as a representamen and translated by means of the semiotic process into a more developed or less developed (degenerate) interpretant (Collier, 2014, p. 187). This kind of translation would have ten subcategories, according to the Peircean conceptualization. Concerning the translation of interpretants, Merrell (2000a, p. 135) correctly talks about ‘when signs become other than what they are.’ Because semiosis is a process, interpretants, being determined by the representamen and related to the object mediately, become the representamens for further semiosis. The classes of signs that Peirce conceived give

expression to these ten kinds of translations. These ten classes represent ten types of translation, each giving rise to a more complex interpretant. For the sake of the argument I am trying to make, I have to discuss these in detail here (for full discussions, see de Waal, 2001, 2013; Merrell, 1997, 1998, 2000a, 2003a; CP 2.254–2.263)

The least developed sign would be a *Qualisign* (Feeling), which entails pure feeling. In such a sign process, the interpreter would have an experience of Firstness of the representamen as well as the object and the interpretant. All three of these would, thus, be experienced as a quality, as possibility, and there would be no development of this sign process into a more developed interpretant. As an example, this sign could make someone aware of a feeling, but the nature of the feeling is not clear at all. The feeling could be of a color or a sound, such as ‘the feeling of red’ or a feeling of ‘blueness.’ To demonstrate the development or engenderment of interpretants, I choose one example, namely sound. The Qualisign would thus be a feeling that the interpreter has about a sound without knowing that it is a sound or what the sound is.

A sign that is somewhat more developed is the *Iconic Sinsign* (Imaging). In this sign process, the interpreter experiences the representamen as a Second, in other words, the interpreter becomes aware of the fact that the feeling is not just a feeling, it is a feeling about something. In my example, the interpreter would now be aware that the feeling is related to a sound, but the sound has not been identified as a particular sound. However, the object of the representamen is still experienced at the level of Firstness, i.e. just a quality, as is the interpretant. It is only the representamen that has been contrasted as a Second to relate the feeling to a sound, however, the interpreter would not yet know what the sound is about.

The next development is that not only the representamen, but also the object achieves Secondness in the experience of the interpreter. This is called a *Rhematic Indexical Sinsign* (Sensing), which entails some kind of recognition about the existence of the sign. In the example I am working with, it can be the recognition that the sound causing the feeling is music. The object is now also experienced as a Second, i.e. the sound is distinguished from something else, but the interpreter has not yet formed an idea about the sign. This means that the interpretant is still at the level of Firstness, i.e. the meaning of the sign is only a quality and very much undeveloped.

The next sign, a *Dicent Sinsign* (Awaring) is ‘an object of direct experience insofar as it is a sign indicating something other than itself and providing information regarding that something other’ (Merrell, 2000a, p. 38). In this sign process, all three elements, namely representamen, object, and interpretant, are experienced as Second by the interpreter. The interpreter is, thus, now aware that there is a particular representamen, that this representamen refers to a particular object, and that this object has a particular interpretant. However, none of these is fully developed; rather, they are only known in contrast to what they are not. In my example, this sign could be

the opening burst of a piece of music, but the interpreter would not yet be aware of what kind of music or which piece of music it is.

The fifth level of sign development is an *Iconic Legisign* (Scheming). In this sign, the representamen is fully developed, but the object and interpretant are still at the level of Firstness. The sign has now been recognized as a sign because it is patterned and shows a likeness to something other than itself. In terms of the example, this sign will be music that has been recognized as classical music, not rock, for instance.

It is only at the sixth translation that language enters the Peircean scheme of semiosis, namely the *Rhematic Indexical Legisign* (Impressing-saying). This fact, namely that half the signs do not include language, is another argument against the linguistic bias in translation studies. If so much of understanding and meaning is achieved without language, there is no justification for a linguistic bias in translation studies. Rather, there is much justification for a translation studies that is able to study non-linguistic sign processes. Back to the Rhematic Indexical Legisign, the sign has now made an impression on the interpreter and can be pointed at. The interpreter is aware of the sign and knows that it stands in contrast to an object, but has no clear insight into the interpretant, in other words, what it means. Signs in this category would be demonstrative pronouns. Referring to the music, it would be a pronoun like 'Oh, that!'

A *Dicent Indexical Legisign* (Looking-saying) is a sign that has been recognized as a sign, furthermore, it has been recognized that this sign is a sign in relationship to something, but the mediation between the sign and the object is still tacit, in other words, not explicit. In terms of the example, it would entail recognizing the music as something from Beethoven, but not necessarily more than that, i.e. what piece by Beethoven, or even what genre by Beethoven.

The next sign is the *Rhematic Symbol* (Seeing-saying). This and the next two signs are all symbolic, which means that the relationship between the representamen and the object is arbitrary (although only to some extent, as history of use causes habits, which are not arbitrary in every sense of the word) and determined by habit-like or rule-like convention. The sign is given a name and represents a general concept. In my example, this sign would be 'Beethoven's Fifth.'

In the next sign, the previous interpretant is developed into a *Dicent Symbol* (Perceiving-saying). In Merrell's (2000a, pp. 40–41) words, '[t]he sign interrelates with its object by an association of general ideas.' This sign would be a proposition that is able to make clear what the object of the sign is. My example will thus entail something such as, 'This is the first bar of Beethoven's Fifth Symphony.'

The last sign, *Argument* (Realizing), is the most developed kind of sign in the Peircean decalogue. The relationship between representamen and object is conventional and based on generalizations or habits. It is knowledge. In my example, this sign would entail something like, an academic article on

Beethoven's Fifth Symphony in which the representamen, object, and interpretant are all developed to the level of Thirdness.

Peirce also acknowledges the possibility that some of these signs can be de-engendered, i.e. become habitualized or tacit. Because these de-engendered signs are relevant to my interest in the emergence of social and cultural forms, I leave the discussion about them for the next chapter.

6 Conclusion

In this chapter, I conceptualized translation as negentropic semiotic work performed to constrain the creation of interpretants. This conceptualization is based on a process ontology and a complexity epistemology. I closed the chapter by considering some categories of translation that can be used in empirical analysis. I intentionally kept the categories broad and somewhat fuzzy, because of the complexity of semiotic process-phenomena, though others might legitimately want to supply finer categories.

I suggest three broad categories of translation, namely representamen translation, object translation and interpretant translation. Under representamen translation, three main principles could be used to create finer categories, namely hierarchical levels (intra-, inter-, and extra-systemic translations), the five senses (visual, auditory, olfactory, tactile, and gustatory), and the media in which the representamen is materialized (e.g. music, sculpture, architecture). These principles can be combined in various ways to create categories of translation. Object translation allows for two subcategories, namely that of the immediate and the dynamic object. Interpretant translation provides three types of interpretants, namely dynamic, immediate, and final interpretants, to which one can add the ten types of ways in which interpretants are engendered.

In the next chapter, I move on to explore the social and development implications of the theory of translation that I presented here.

Notes

1. From here onwards, I consistently refer to 'process-phenomenon' in line with the process ontology that I shall present in the next section.
2. I do not consider the implications of this theory for artificial intelligence, because I do not know the field of AI well enough to do so.

6 Translating Socio-cultural Emergence

1 Introduction

In the previous two chapters, I conceptualized translation in terms of negentropic semiotic work, which has as its aim the imposition of constraints on semiotic possibilities in order to create meaningful responses to an environment. This conceptualization allows translation studies to study all forms of semiotic work, including, but definitely not limited to, interlinguistic translation. This means that the emergence of social and cultural tendencies and phenomena, conceptualized as meaningful responses to an environment, is on the agenda of translation studies. While studying the semiotic aspect of society and culture is not something new (French and Russian semioticians have done this since the 1960s, at least), the focus on process, emergence, and constraints, in other words, a complexity focus, would indeed require novel thinking. What would also be new is to link questions of emergence to issues of development, in other words, the unequal power differentials under which societies and cultures emerge. In addition, the methods with which to study these kinds of phenomenon need serious consideration.

In this chapter, I start considering the implications of the aforementioned for the emergence of ententional (socio-cultural) phenomena, using the term ‘ententional’ as Deacon conceptualizes it (2013, pp. 27–29); I would also like to think about how one would go about studying this emergence. Put differently, I would like to start the process of considering a research agenda for the type of translation studies I conceptualized earlier. What would one study and how would one go about it? Where society and culture come from is not a matter for one chapter, as Terrence Deacon’s magisterial work shows. This means that I am not going to try to answer the whole of this question here; rather, I would like to work out some of the implications of my thinking in previous chapters as it relates to the issue of the emergence of social or cultural phenomena and then, briefly, suggest some research questions that could drive a research agenda based on the earlier discussion. Even then, this chapter will provide a very sketchy outline, providing as it were the pegs by which an intellectual mountaineer can attempt to climb this arduous route.

I limit my discussion in this chapter to the following. First, I explore the implications of Deacon's work on the causality of ententional phenomena for the emergence of social and/or cultural systems. Second, I link my notion of object translation, conceptualized in Chapter 5, to the sociology of knowledge, to explore the semiotic process underlying both society and culture. Third, I explore degenerate sign processes in general, and indexes in particular, as a key to a research agenda that will study social and cultural phenomena as signs of the process of their emergence. Last, I propose five research questions to drive a research agenda based on the earlier discussion.

2 Social/Cultural Emergence: Working to Impose Constraints

In his magisterial work, *Incomplete Nature: How Mind Emerged from Matter*, Deacon (2013) provides a theory that explains the emergence of ententional process-phenomena from physical-chemical phenomena without recourse to some kind of homunculus, golem, god, or spirit. Deacon's thesis is that the emergence of ententional process-phenomena entails a process of imposing constraints on possibilities. In this section, I provide a brief summary of his argument and then try to indicate some of the implications for the emergence of semiotic process-phenomena.

Deacon (2013, pp. 206–214) starts off by arguing that all of reality is subject to the Second Law of Thermodynamics, which states the tendency of processes in reality to move toward equilibrium. This process toward equilibrium is also known as entropy, and it reflects the natural tendency of reality—if left to its own devices. Deacon calls processes that are in line with this tendency 'homeodynamic' processes, i.e. processes tending toward homeostasis. Examples would include the fact that something hot will get colder until it is at the same temperature (in equilibrium with) as its environment—or hotter if the environment is hotter than the thing originally was. Deacon (2013, pp. 235–263) identifies a second type of process, which he calls a 'morphodynamic' process. In this type of process, constraints are imposed on homeodynamic processes, and these constraints result in the emergence of new forms, hence morphodynamics. Examples of morphodynamic processes would be the formation of snowflakes with intricate patterns—and all forms of life. Morphodynamic processes run counter the entropic tendencies stipulated by the Second Law and thus require work, i.e. constraints to be imposed. Note that work does not imply an intentional agent, because natural systems can constrain one another, i.e. perform work, as in the creation of snowflakes. Deacon (2013, pp. 214–234) explains how work is a process of imposing constraints on homeodynamic processes to create asymmetries, which creates energy that can be harnessed to perform the work. It is important to note that Deacon conceptualizes energy not as a thing, but as an asymmetry of potentials. Thus, confining air in a tube and compressing it will

raise the pressure in the tube, compared to outside the tube, which means that the difference between the pressure inside the tube and outside allows one to do work, such as inflate a tire or blow away leaves. The asymmetry between the pressure inside the tube and the pressure outside the tube is what constitutes energy and, thus, the ability to perform work. Deacon (2013, p. 270) then posits that homeo- and morphodynamic processes can be constrained in complex, recursive ways to give rise to ‘teleodynamic’ processes, i.e. processes that are driven by an as-yet-unrealized goal (Deacon, 2013, pp. 264–287). These would be living processes that are driven by goals yet unrealized, such as procreating or surviving or being happy. In Deacon’s view, then, reality emerges at different levels through the interplay of homeo-, morpho-, and teleodynamic processes.

Deacon (2013, pp. 143–181) then deals with the problem of emergence, pointing out that theories of emergence display two weaknesses (also see Barrett, 2015, p. 36). On the one hand, these theories do not solve the problem of supervenience, namely that there can be no difference at the holistic level of a system without a difference in the parts. On the other hand, they tend to be circular in nature, arguing that the parts that create the whole are being created by the whole (also see Bedau, 2008; Kim, 2008). To overcome these problems, Deacon (2013, pp. 179–181) proposes a complex theory of emergence that includes both bottom-up and top-down emergence, but which also shifts the causal force of top-down emergence from the whole to the constraints imposed on the whole. Thus, in Deacon’s view, the cause of top-down emergence is not the whole, but the constraints that are imposed on the whole by negentropic work. In order to come up with this solution, he poses the notion of constraints, i.e. limitations imposed on possibilities, such as in my example of the pump earlier. Deacon (2013, pp. 1–45) explores the notion of zero as developed in mathematics, claiming that an understanding of zero or, in his terms, ‘absence,’ is needed to understand constraints. The gist of Deacon’s argument is that constraints limit possibilities and this limitation creates the asymmetry that is needed to perform work. In this way, he argues, absences, i.e. limitations, have real causal effect.

Deacon (2013, pp. 371–420) then moves on to information and meaning, arguing that the constraints that are imposed on any information process create an asymmetry of information (just as with energy), which can be utilized for performing semiotic work. The possibilities that could have been realized, but were not, thus have causal effect on the possibilities that were indeed realized. In this sense, Deacon argues that the whole is less than the parts, because the parts had unlimited potential, which became limited through the constraints imposed on them by there being a whole. In Deacon’s view, bottom-up causation and (his view of) top-down causation operate together in emergence.

Deacon (2013, p. 3) coins the term ‘absential’ to refer to the eliminated possibilities, also in opposition to ‘sential,’ both of which, he argues,

contribute causally to the emergence of the process-phenomena of reality. He posits that one needs the concept of the absential in order to be able to conceptualize a complex notion of emergence in which both bottom-up (the whole emerges from the interaction of the parts) and top-down (the parts emerge from the constraints of the whole) interact for the emergence of reality. The absential is closely linked to counterfactual thinking and possible-worlds thinking (Pavel, 1986; White, 1987), such as the sentence, 'Had I watered the plant, it would not have died.' In other words, something that I did not do had a causal effect on something else. Something absential had causal effect on something sential. The notion that 'the absential' has causal effect has been received with various levels of enthusiasm (Barrett, 2015; Bokulich, 2015; Cassell, 2015; Green, 2013; Neville, 2015), and I assume that the debate about this has not yet been settled. I am of the opinion, however, that it, at least, deserves consideration in the humanities.

Once an asymmetry, whether in energy or information, has developed because of constraints, it tends to cause further constraints, enlarging the asymmetry. This asymmetry then becomes what is known as an attractor, a tendency with causal effect. In the natural sciences, the notion of attractor can be illustrated by referring to a basin between mountains. This basin acts as an attractor, because most of the rain in that area will flow toward the basin. An attractor, thus, refers to a general tendency for things to tend toward a particular pattern. Deacon (2013, p. 172) explains that an attractor is not a force, but only 'a statistical bias.' What needs further exploration is the extent to which one could also model attractors narratively. For example, one would be able to argue that folk tales represent a narrative modeling of attractors, i.e. tendencies in cultural life. In this kind of qualitative narrative analysis, the causality of the plot would probably be the focus. Much work, however, needs to be done on how to conceptualize the 'qualitative bias' in attractors in culture.

In Deacon's view then, teleodynamic systems, such as living cells and living organisms, did not emerge from parts only, but also from constraints on and through homeo- and morphodynamic processes. Once he has proven that absentials have causal effect, he is able to prove that intentional phenomena can have causal effect. The problem he grapples with is that of eliminative materialism (Green, 2013, p. 480). While Deacon, and I, would argue that all of reality is subject to the laws of physics and matter and that these laws are never violated in living organisms or their societies and cultures, he, and I, argue that living organisms—and then their societies and cultures—are 'more than' physics and matter. In his terms, ententionality, aboutness (Deely, 2007), is an emergent feature of living organisms, and it (ententionality) has emerged through a complex interplay of homeo- and morphodynamic systems, but which are not to be reduced to them. Because Deacon is able to argue that absentials have causal effect in physical and material systems, he is able to argue for emergent forms of ententionality in living organisms without ever submitting to homunculi, golems or the

like. In his view, the key to explaining ententionality is constraints, which means that reference to things that do not exist could explain the things that do exist materially. To be sure, there is nothing but physics and matter—and the constraints that operate on them. These constraints, while having a physical-material substrate, are not in themselves physical-material—they are relational, and in this sense they link to the relationality of semiosis as explained by Deely (2001, 2007, 2009a).

Deacon uses this conceptual framework to explain how mind¹ (consciousness, intention, will, goal-directed behavior) emerged from a physical-chemical substrate. He also coined the term ‘ententional’ to refer to all teleodynamic processes or systems (Deacon, 2013, p. 27). This term is closely linked to the term, intentional, though he wanted to rid it of its anthropocentric and psychological bias. All living organisms are thus ententional, driven by future outcomes. In Deacon’s definition, all semiotic processes are, by definition, ententional (Deely, 2007)—they are about something.

The question then arises: Why and how is this relevant for translation studies? Let me explain my line of thinking. If one argues along the lines of Deacon, linking his line of thought with my conceptualization of translation in the previous chapter, it means that all translation is teleodynamic, ententional process that is aimed at the imposition of constraints on semiotic processes. In his work, Deacon (2013, pp. 371–391) explains that, just like energy, information is not a thing, but rather the establishment of asymmetrical patterns by means of constraints. Information, thus, has meaning, because it has been constrained, and these constraints are being related to the interests of living organisms (interpreted). Following Deacon, I, thus, first posit that his theory provides us with a unitary theory of reality, in which the sential (force and matter) and the absential (living and meaning) are related by means of constraints and are both causal factors in the emergence of social and cultural reality. For the humanities, this is important for at least two reasons. The first is that Deacon (alongside scholars such as Kauffman (1993, 1995, 2000, 2008) and the broader biosemiotics movement (Favareau, 2007)) represents a movement in biology to overcome eliminative materialism, i.e. the idea that there is nothing but energy and matter in reality. It is a movement in the natural sciences that is looking for meaning in (at least) biology and (also) chemistry and physics (Henning & Scarfe, 2013). The philosophical background to this movement is the Cartesian schism between matter and mind, with the resultant materialism (there is only matter and mechanism and nothing else) in the natural sciences, and the idealism (I only know what I think, and the world as I construct it in my mind is the world) in the humanities and social sciences. The work by Deacon (and Kauffman and biosemiotics) represents an effort to repair the Cartesian schism by arguing that ‘mind’ (consciousness, intentionality) emerged out of physics and matter and is ‘something more’ than physics and matter, without stopping being physics and matter. The second, and consequent,

reason why Deacon's thinking is important is because it offers an antidote to the idealism of cultural studies that studies representations and ideas as if there is no physics and chemistry. Furthermore, I suggest that considering systems of meaning in terms of constraints operating on parts, rather than parts organized into wholes, will provide us with a more fruitful way of thinking about social and cultural emergence. Thus, as Deacon argues, in ententional processes, one does not always have parts that are organized into wholes. Sometimes, parts co-emerge with wholes or because of wholes. Thus it makes sense to think of the emergence of a movie, for instance, not in terms of shots being combined into a whole, but in terms of a concept of a whole that constrains the kind of shots that builds the whole. Sometimes wholes come before parts and thus construct the parts. Sometimes the parts come first. And sometimes, they co-emerge.

Moving to translation, I have conceptualized it as negentropic semiotic work and can now, perhaps, be more precise by explaining 'work' as the imposition of constraints (Aguiar, Atã, & Queiroz, 2015, p. 12) on semiotic processes in order to utilize the resultant asymmetric semiotic potential to create social or cultural forms/artifacts/structures. In this sense, current thinking in the 'liberal project,' that social and cultural emergence should be based on change, as the most basic feature of reality, is mistaken—at least partly. As Deacon has shown, entropy is the most basic tendency in the processes of reality, which means that reality is, simultaneously, a tendency to process and a tendency to stasis. Left to their own devices, even socio-cultural processes will tend toward homeostasis, dissipation of energy, and entropy. Thus, societies and cultures emerge only through work, semiotic work, which counters the entropy by imposing constraints on it. It follows that the imposition of constraints on processes creates tendencies or habits—attractors in complexity theory parlance (Marais, 2019)—which means that process and structure are in a complex dance—and neither can claim dominance. Work has been put into constraining meaning to create culture, and more work has to be put into further constraining meaning (opening new possibilities) to change culture. This is why cultural change is difficult—not only because of vested interests or resistance to change for the sake of resistance to change. I do not deny the role of vested interests or the privilege of power (and the power of privilege) in conservative thinking. I do challenge the notion that these are the only reasons for conservative thinking or practice. What the Second Law makes clear, is that all of reality tends to a conservative trajectory and that it takes work to change—and work is difficult and requires energy, which is limited. Considering these factors, rather than merely demonizing conservative tendencies in culture, might open up new avenues for liberal thinkers, among whom I count myself, to think about and 'sell' the liberal project.

Apart from conceptualizing the emergence of society/culture through semiotic work, I also want to start the process of thinking about a research program or agenda that could flow from this conceptualization. The next

question is then, what is the nature of a research agenda for translation studies based on the conceptual framework suggested earlier? How would one operationalize the conceptualization to make it possible to do research based on this conceptualization? In the rest of the chapter, I explore a few basic aspects of such an endeavor.

First, I think that the theoretical angle that I worked out in the previous chapter based on Peirce, namely to have three tendencies in (types of) translation (representamen translation, object translation and interpretant translation) needs to form the basis of a research agenda. Much of what is done in translation studies these days, as well as much of what is done in multimedia/multimodal studies, falls under the category of representamen translation. These kinds of translation are interested in the translation process that takes place when one changes (mainly) the material nature of the representamen. This is obviously a valid focus in translation studies, and I have no qualms with it. Much of what is done in hermeneutics and fields such as literary criticism could be categorized under interpretant translation, namely reviewing interpretants, contesting interpretants, arguing about interpretants and re-interpreting interpretants. Once again, this is a valid focus, and I would not want to change it. In my view, however, object translation is the weakest of the three tendencies in translation, not least because of idealist and linguistic biases in the humanities. Its weakness is, however, not the only reason why I think it deserves study. Cultural studies and sociology have been interested in the emergence of culture and society for a very long time. Equally, development studies have been exploring the factors that play a role in the emergence of societies. I live in an emerging society, especially after the political turn-around in 1994 and the subsequent struggle to build a new society/culture, so I find studying the emergence of society a pressing matter in my context. Next, I thus work out a research agenda for object translation, not because I want to create another bias, but because object translation offers conceptual tools for gaining insight into the emergence of society/culture, which is my point of interest. In time, I shall work out the implications of this for development studies. My idea is that filling the gap left by the lack of attention to object translation will contribute to the larger understanding of translation as a whole.

Second, indexicality provides me with another key concept for studying the emergence of society and culture. Once again, iconicity has been studied significantly in semiotics as it relates to art, and symbolicity is been afforded ample effort in the study of language; also in the work of structuralist and poststructuralist semiotics and cultural studies. Indexicality, however, has found limited favor in academic circles, perhaps because of the idealist bias in the humanities, though studies from anthropology (Parmentier, 2016) suggest that it might be fruitful in exploring emergence in society.

Third, the focus in much of the emergence of social forms has been on symbolic-interactionism (Sawyer, 2005; Searle, 1995, 1998, 2010), which has the limitation that it does not allow for the study of non- or pre-linguistic

meaning-making as a factor in the emergence of society/culture. In this regard, the Peircean notion of degenerate signs (of which index is one) provides scholars of social/cultural emergence with a conceptual tool to study non/pre-linguistic meaning-making.

In the rest of the chapter I suggest a research paradigm based on object translation, focused on indexical signs that imply a direct or causal connection between representamen and object, which provides one with the possibility to study the social/cultural forms/artifacts/habits as indexes of the processes that formed them. In other words, referring to Deacon's theory, this kind of thinking would allow one to study social/cultural phenomena as nonverbal indexes of the constraints and attractors that constituted the processes of their formation. It is like tracking animals in the wild: You start with the effect and work back to the cause. In this case, the effect will also provide some information about the processes that caused it, just as one would read a geological formation as an index of the forces that created it.

I structure the argument as follows. First, I provide a brief overview of work by Latour and Eco that illustrates the relevance of object translation for the sociology of knowledge. My aim is to argue that object translation has been studied, though not under that name, and is relevant to efforts to explain society and culture. Second, I explore the notion of degenerate signs and indicate how these can contribute to understanding the ways social/cultural forms emerge. Third, I briefly explore indexicality, in particular, with reference to its use in ethnography, and then arguing for its relevance to understanding social/cultural emergence. Last, I suggest a research agenda with five main research questions to guide future research on this matter.

3 Object Translation and Sociology of Knowledge

Bruno Latour is well-known in translation studies, because his actor-network theory (ANT) has been used by a number of scholars in the field (Bogic, 2007; Buzelin, 2005, 2007; Devaux, 2016; Kinnunen & Koskinen, 2010; Luo & Zheng, 2017; Risku & Windhager, 2013). My interest with Latour, however, is not in ANT, but in his use of semiotics to explain the sociology of knowledge. As far as the sociology of knowledge is concerned, Latour (1987) argues that knowledge is thoroughly social, as it is created through a socializing process where non-human and even non-living things are entwined in the human meaning-making process to create knowledge (and societies)—a view that reminds of Deely's (2001) arguments about the semiotic nature of postmodernism. Examples of the latter are Latour's (1992) work on scallops and doors to indicate how these get woven into the fabric of human society by means of a semioticizing process. An example of the former is his study on Pasteur's investigations, which lead him to finding bacteria as the cause of milk going sour (Latour, 1993a). In a passing one-sentence reference to Greimas, Latour (1996, p. 374) briefly indicates that

this process of linking human with non-human phenomena is a semiotic process. He does not, however, explore this process in more detail.

Because he was interested in the sociology of science, Latour (1987, p. 50) bases his sociology on the semiotic turn of the 1960s and calls the process through which data or ideas are turned into facts, a translation process (Latour, 2007, p. 71). In this view, translation is the process by which, among others, material things are translated into semiotic phenomena (Latour, 1993a, pp. 24–25). By this translation, a connection or relationship is created between material and non-material phenomena. This paradoxical connection maintains both the material and the non-material, without the one killing off the other in the process. The semiotic underbelly of his thought is scattered throughout his work and, in my view, not conceptualized clearly. One of my aims here is to pick up the hints that Latour left and work them out in more detail. Latour (1987, p. 67) is interested in how nature becomes fact, which requires it to be translated into semiotic form. This view of semiosis as the interface between nature and culture Latour shares with Deely (2009b). Semiotics interfaces with reality by linking or constructing relationships between organisms and their environment (Latour, 1987, p. 125). Just like Sebeok and Danesi (2000) but in different words, Latour (1987, p. 226) views semiosis as a modeling tool with which scientists can create ‘a paper world with which many things can be done which cannot be done with the world.’ A key aspect of the sociology of scientific knowledge is that it has to be translated back into general knowledge if it is to be useable by non-experts (Latour, 1987, p. 247; see also Callon et al., 2011). It should also be clear that Latour’s notion of translation entails process, i.e. the process of creating links, the process of relating matter to meaning (Latour, 2007, p. 233). In his view, the social is not ‘there,’ stable enough to be measured; rather, it is a process, which needs to be studied as a process. As far as scientific work is concerned, Callon et al. (2011, p. 59) are of the view that ‘[t]he research collective organize experimental work, fabricate inscriptions and translate them into propositions.’

In an article in which he set out to clarify some misunderstandings about ANT, Latour (1996, p. 373) clearly refers to Greimas by calling the ‘actor’ in ANT an ‘actant.’ In his structural semiotics of narrative, Greimas conceptualized actants as the structural roles that agents play in a narrative. One would, thus, have six actants, namely sender, object, receiver, helper, subject, and opponent. Latour (1996, p. 373) clarifies, further, that ‘[t]he difficulty of grasping ANT is that is been made by the fusion three hither-to unrelated strands of preoccupations—a semiotic definition of entity building.’ Latour (1996, p. 374) is of the opinion that this link with semiotics is crucial for explaining social processes in their relation to the other (and not solipsistically as representations only), and he motivates this choice by the only explicit reference to Greimas that I could find in his writing, referring to Greimas’ *The Social Sciences: A Semiotic View*. In another article, Latour (1993b, p. 132) refers to semiotics as ‘world making,’ which links to Deely’s (2001, 2009b)

views of semiosis as the process that relates living organisms to their world, thereby creating a web of experience. Because of this view of the translational function of semiotics, Latour (1992) oscillates easily between the human and non-human in the emergence of the social (see also Latour, 1993a, p. 14).

I wish to elaborate on a key point by Latour, which links closely to my interests in indexicality that follow. Latour (2007, p. 8) argues that the social is never visible in itself; rather, what one is able to observe is the traces of the processes by which the social had been formed. In other words, in the study of the social and/or cultural, one needs a method that allows you to argue backward, from trace to cause. This is exactly what indexicality does: It treats traces as signs of the causes of those traces, in the same way as tracks are signs of the animals that caused them, and object translation allows me to describe the process of relating human interests to the environment, i.e. the creation of knowledge and society.

This led me to reading Greimas himself, who wrote a whole book on the topic. For Greimas (1990, p. 139), knowledge entails a semiotizing process in which we ‘project . . . the discontinuous on the continuous.’ This comment refers to the biosemiotics discussion, in which I point out the interplay between analogue and digital coding in living organisms. Human knowledge, in this case, semiotically digitalizes the analogue process of life into language or other digital systems of meaning, such as mathematics. Greimas (1990, p. 4) also astutely observes that, when we talk about relationships, we inevitably turn them into substantives. This problem is related to the idea that language, talking, is a digital code, forcing us to talk substantively about process. The problem about relationships also suggests that we might need to look for alternative modes of representing our thought about process, e.g. computer simulation.

Semiotizing reality inevitably means a loss in the fullness of information, and an increase in signification (Greimas, 1990, p. 4). This observation by Greimas links to Deacon’s argument, that constraints mean more difference and, therefore, more meaning. Greimas takes a pragmatic stance on knowledge, seeing it not as a system of logic, but as a process of doing—cognitive doing, which is semiotic doing, in particular (Greimas, 1990, p. 44). This pragmatic understanding of semiotic work, once again, links in with Deacon’s idea of semiotic work, Peirce’s idea that meaning is determined pragmatically, indexicality as the pragmatics of meaning, and my suggestion that the name for this process of semiotic work is translation. Latour’s thinking is also related to Eco’s work in *Kant and the Platypus*, in which Eco explains in great detail the translation process through which the platypus had become part of the knowledge system of the Western world, by being, piece for piece, semiotized, as discussed in Chapter 3 and 5.

Both Latour, on the basis of Greimas, and Eco demonstrate object translation, which I can now conceptualize as the negentropic semiotic work done to relate or orient living organisms to their environment, in a way that the organism understands enough of the environment to survive in it. The

relational process entails that living organisms create meaningful models of their environment that assist them to operate, survive and, hopefully, thrive in this environment. It becomes clear that an idealist explanation of this process will not suffice. Somehow, organism and environment need to be woven into a meaningful relationship, so that the organism's model of the environment holds true sufficiently for survival. This claim does not rule out the ability of organisms to create alternatives and dreams, and even to change reality according to their ideas. It does not render organisms absolutely passive and delivered to the whims of the environment. It does not take away the agency of organisms. It does, however, mean that constructivist and idealist views on the relationship between organisms and their environment are only relatively true—just as realist views on this relationship are only relatively true. My argument is that at least a part of the humanities, translation studies in this case, needs to operate with a realist assumption, factoring in physics and matter into its equation when thinking about being human. Humans do not exist merely in the world of ideas. They exist in a mixed weave of ideas and physics and matter and dreams and possibilities and absentials. It is only when reality is indexed as part of the meaning of experience that we can have a non-idealist, pragmatic notion of meaning.

4 Degenerate Signs

I am interested in degenerate signs because, theoretically, they should allow me to study culture and society by studying (also) nonverbal artifacts. Kress (2013, p. 48) seems to be in agreement:

My use here of the term 'transcription' points to an urgent problem for MMDA: the terminology available to describe a multimodally constituted and recognized semiotic world is no longer apt, and that world urgently needs renaming. The labels we have come from a world that was founded on the pre-eminence of language, and of writing in particular. Using terms that carry a heavy freight of past theory designed for different tasks, now congealed into commonsense, is likely to skew the new enterprise in its development. There is a large agenda of work here. There is also the promise of seeing and doing better. Both will be essential in dealing with the problems that currently define the world of meaning

In my view, the current problem with cultural studies is that it mostly studies culture at the level of symbols and icons, ignoring indexes. While it is true that icons also allow for studying culture at a preverbal level, indexes can add to this endeavor—and add a realist perspective, as argued earlier. To be clear, I am not arguing against studying culture and society from the perspective of icons and symbols, but I am suggesting that indexes should be added to broaden our understanding of the emergence of culture. This

is important, because much of culture and society happens at a pre- or nonverbal level and also at a non-aesthetic level, which means that both symbols and icons leave one with a particular bias. Studying culture and society as degenerate signs, particularly indexes, should give us access to meaning-making at a preverbal level, at a level where meaning is embedded in practice and where practice actually is the meaning. The problem that this raises is how one would study practices, and even non-conscious practice, if one does not ask people about their practice? How do you tap into non-conscious meaning-making? I do not have clear answers to these questions as yet, but they should become part of the research agenda that I am outlining here. In what follows, I provide a brief overview of degenerate signs and what they offer for a theory of translation that aims to explore the emergence of social/cultural phenomena. I do so, once again, by quoting Peirce.

A sign is in a conjoint relation to the thing denoted and to the mind. If this triple relation is not of a degenerate species, the sign is related to its object only in consequence of a mental association, and depends upon a habit. Such signs are always abstract and general, because habits are general rules to which the organism has become subjected. They are, for the most part, conventional or arbitrary. They include all general words, the main body of speech, and any mode of conveying a judgment. For the sake of brevity I will call them *tokens*.

(CP 3.360)

In the earlier quote, Peirce argues that non-degenerate signs consist of a triple relationship between representamen, object, and interpretant, and that this relationship is based on convention or habit. However, it is also possible to have degenerate signs in which other relationships obtain between representamen, object, and interpretant. The implication of the quote is that, in the case of degenerate signs, the relationship between representamen and object is not 'only in consequence of a mental association,' which association could be that of cause and effect or proximity in the case of indexes. To these other possible associations, Peirce refers in the next quote:

But if the triple relation between the sign, its object, and the mind, is degenerate, then of the three pairs—sign object, sign mind, object mind—two at least are in dual relations which constitute the triple relation. One of the connected pairs must consist of the sign and its object, for if the sign were not related to its object except by the mind thinking of them separately, it would not fulfill the function of a sign at all. Supposing, then, the relation of the sign to its object does not lie in a mental association, there must be a direct dual relation of the sign to its object independent of the mind using the sign. In the second of the three cases just spoken of, this dual relation is not degenerate, and the

sign signifies its object solely by virtue of being really connected with it. Of this nature are all natural signs and physical symptoms. I call such a sign an *index*, a pointing finger being the type of the class.

(CP 3.361)

In the case of degenerate signs, the link between representamen and object is not mental or 'by the mind,' as Peirce phrases it. This means that the representamen is related to the object in ways other than by convention. One of the relationships between representamen and object could be that of an index, in which the connection between the two is real, such as in the case of physical symptoms. I discuss these, indexical, signs in more detail in the next section. Fitzgerald (1966, p. 46) spells out degeneracy by saying that a sign 'is degenerate if the foundation for the relation between the sign and its object is independent of a knower,' which means that, in the sign process, the sign maker uses the existing link between representamen and object, and does not create one afresh. Degenerate signs, in the Peircean tradition, thus refute arguments that all meaning is only arbitrary and conventional—and constructed. They allow us to relate with reality and weave reality and the causality in reality into our web of experience.

Peirce clarifies degeneracy further in the following quotes:

An **Index** or **Seme** ({séma}) is a Representamen whose Representative character consists in its being an individual second.

(CP 2.283)

An *index* is a representamen which fulfils the function of a representamen by virtue of a character which it could not have if its object did not exist, but which it will continue to have just the same whether it be interpreted as a representamen or not.

(CP 5.73)

What is relevant is that the object of an index is a Second; in other words, it is something both other and individual. In Peirce's phenomenology, Seconds refer to that which resists, is brute, forces itself to awareness by being other. Furthermore, if the object did not exist, the representamen would not have any relationship with the object. The sign relationship is degenerate in that the relationship will exist whether a mind recognizes it or not (Merrell, 1998, p. 23). With symbols, the habit or general rule that underlies the relationship between representamen and object is constructed conventionally by the organism. With indexes, the relationship between representamen and object existed before organisms became aware of it, and irrespective of whether organisms ever become aware of it.

Merrell (n.d., p. 4) explains that not all signs are of the same complexity. Degenerate signs are less complex than genuine signs in terms of the meaning they mediate. In the case of degenerate signs, the 'sign activity

has become “sedimented” and “entrenched” through repeated use’ (Ibid; Merrell, 1998, p. 22). The more developed a sign, the more meaning is generated. Symbols are the most developed signs and, thus, convey the most information. Degenerate signs convey less information, but they convey a particular type of information that symbols cannot convey, i.e. likeness in the case of icons, and causality in the case of indexes. Adding the particular type of meaning that indexes, specifically, provide to our understanding of the emergence of society/culture, should broaden our understanding of this puzzling process.

I explore degenerate signs because I am interested in studying the emergence of society/culture or development. One of the problems with development practice is that practitioners find it difficult to understand why there is resistance to their noble intentions, or why development efforts fail. Development scholars are beginning to realize that these problems could be ascribed to a multitude of factors, among which, a lack of dialogue (Owen & Westoby, 2012; Westoby, 2013; Westoby & Dowling, 2013), lack of understanding of what development means for recipient societies (Kaplan, 2002; Kaplan, 2005; Olivier de Sardan, 2005; Westoby & Kaplan, 2014), and a limited ability to communicate about the meaning of embodied and embedded cultural practice. It might just be that social/cultural practice as signs of meaning-making processes might give us some insight into why people do things the way they do them—without having to ask them. Asking people about these practices is not necessarily a bad thing, but if one assumes that at least some social/cultural practice occurs at an embodied and/or unconscious level, it would not help to ask people. In a next book, I will explore this line of thinking empirically.

5 Indexical Signs and Society/Culture

The kind of research I am suggesting here is closely related to social semiotics (Kress, 2010; Kress & Van Leeuwen, 2006; Van Leeuwen, 2005) and multimodal discourse analysis (Kress, 2013; Machin, 2016). However, my aim differs somewhat from these approaches (Marais, 2018), in that I want to move beyond discourse analysis by studying the constraints that are imposed on semiotic ‘material,’ as explicated earlier. My idea is that insight into the constraints that work on semiotic material might add insight that discourse analysis misses. That said, I do build on the tradition of social semiotics here. In particular, I take my lead from Kress’ (2013) search for a way to study and talk about multimodality without submitting to the linguistic bias:

My use here of the term ‘transcription’ points to an urgent problem for MMDA [*multimodal discourse analysis—KM*]: the terminology available to describe a multimodally constituted and recognized semiotic world is no longer apt, and that world urgently needs renaming. The

labels we have come from a world that was founded on the pre-eminence of language, and of writing in particular. Using terms that carry a heavy freight of past theory designed for different tasks, now congealed into commonsense, is likely to skew the new enterprise in its development. There is a large agenda of work here. There is also the promise of seeing and doing better. Both will be essential in dealing with the problems that currently define the world of meaning.

(p. 48)

Peirce conceptualized a number of types of signs, which I discussed in Chapter 4 and 5. As argued earlier, I would like to focus on indexical² signs here. First, I present, with comments, a few of Peirce's texts in which he discusses indexes.

An *Index* is a sign which refers to the Object that it denotes by virtue of being really affected by that Object. It cannot, therefore, be a Qualisign, because qualities are whatever they are independently of anything else. In so far as the Index is affected by the Object, it necessarily has some Quality in common with the Object, and it is in respect to these that it refers to the Object. It does, therefore, involve a sort of Icon, although an Icon of a peculiar kind; and it is not the mere resemblance of its Object, even in these respects which makes it a sign, but it is the actual modification of it by the Object.

(CP 2.248)

The point I want to make from the aforementioned quote is that an index entails a representamen that is 'really affected' by its object. Icons account for resemblances, and symbols for convention or arbitrariness, and both are relevant to the use of signs. Indexes, however, account for the fact that meaning-making takes place in reality and is related to the reality in which it takes place. It is affected by reality and affects reality. Indexes, therefore, relate to the pragmatic side of meaning-making (Parmentier, 1997). It is one of the legitimate ways in which signs operate, and because of the linguistic bias in translation studies and the idealist bias in the humanities, it has, to a large extent, been ignored. Semiotic analysis that intends to be socially and culturally relevant should not be about semantics only, but also about pragmatics, i.e. meaning as enacted socially/culturally—contextually, if you wish.

An *Index* or *Seme*†1 ({{séma}}) is a Representamen whose Representative character consists in its being an individual second. If the Secondness is an existential relation, the Index is *genuine*. If the Secondness is a reference, the Index is *degenerate*. A genuine Index and its Object must be existent individuals (whether things or facts), and its immediate Interpretant must be of the same character. But since every individual must

have characters, it follows that a genuine Index may contain a Firstness, and so an Icon as a constituent part of it. Any individual is a degenerate Index of its own characters. CP 2.284 Cross-Ref:††

(CP 2.283)

I discussed degenerate signs in the previous section, so here the focus is on the ways degenerate signs operate. It is clear that indexes, as degenerate signs, operate based on real relationships or connections, even physical proximity. Their operation must somehow be real, specific, contextualized. Even language, which uses symbolic relationships between representamen and object, uses indexes, such as the deictic elements 'this' or 'that,' which cannot be understood only symbolically.

Let us examine some examples of indices. I see a man with a rolling gait. This is a probable indication that he is a sailor. I see a bowlegged man in corduroys, gaiters, and a jacket. These are probable indications that he is a jockey or something of the sort. A sundial or a clock *indicates* the time of day. Geometricians mark letters against the different parts of their diagrams and then use these letters to indicate those parts. Letters are similarly used by lawyers and others. Thus, we may say: If A and B are married to one another and C is their child while D is brother of A, then D is uncle of C. Here A, B, C, and D fulfill the office of relative pronouns, but are more convenient since they require no special collocation of words. A rap on the door is an index. Anything which focusses the attention is an index. Anything which startles us is an index, in so far as it marks the junction between two portions of experience. Thus a tremendous thunderbolt indicates that *something* considerable happened, though we may not know precisely what the event was. But it may be expected to connect itself with some other experience. Peirce: CP 2.286 Cross-Ref:††

(CP 2.285)

From the aforementioned, the spatial proximity and causal relationality of indexes become clear. Indexes either indicate spatial proximity, such as Peirce's example, that a knock at the door has to indicate someone knocking. The someone has to be in proximity to the door. Equally, indexes are signs based on causal relationships. Without seeing the fire, one can deduce from smoke that there must be fire. One can deduce the kind of animals that are around from the kind of droppings that you find in the wild. The fact that indexes are based on relationships of proximity and causality does not mean that they are not signs, i.e. that they cannot be faked or that one cannot interpret them incorrectly. So, smoke can be manufactured synthetically, and someone can falsely be led to believe that something is on fire. Equally, one can use a long stick to knock at a door, misleading the inhabitant of a house into thinking that someone is standing on the doorstep. The mere

fact that signs can be faked or wrongly interpreted does not mean that they are not signs. In fact, it confirms that they are signs. It also becomes clear, however, that, should one want to understand an index better, one needs to make use of symbols, because the index, in itself, indicates the relationship, but does not explicate it to full understanding. As the previous section on engenderment made clear, Peirce provided for the possibility that some signs are more engendered than others, i.e. that they specify more meaning.

A sign is either an *icon*, an *index*, or a *symbol*. An *icon* is a sign which would possess the character which renders it significant, even though its object had no existence; such as a lead-pencil streak as representing a geometrical line. An *index* is a sign which would, at once, lose the character which makes it a sign if its object were removed, but would not lose that character if there were no interpretant. Such, for instance, is a piece of mould with a bullet-hole in it as sign of a shot; for without the shot there would have been no hole; but there is a hole there, whether anybody has the sense to attribute it to a shot or not.

(CP 2.304)

Indices may be distinguished from other signs, or representations, by three characteristic marks: first, that they have no significant resemblance to their objects; second, that they refer to individuals, single units, single collections of units, or single continua; third, that they direct the attention to their objects by blind compulsion. But it would be difficult if not impossible, to instance an absolutely pure index, or to find any sign absolutely devoid of the indexical quality. Psychologically, the action of indices depends upon association by contiguity, and not upon association by resemblance or upon intellectual operations. See 1.558. Peirce: CP 2.310 Cross-Ref:††

(CP 2.306)

This definition by Peirce makes it clear that indexes are signs that embed meaning in a particular context. With icons, the object can be a mere possibility, and with symbols, the object has to be determined by a habit or a rule, which means that it can be a mere idea or dream or fantasy. Indexes, however, stop being signs if their objects are not real, i.e. Seconds. If there is no fire, there can be no smoke, so to speak. It is important to see that indexes always direct attention to some aspect of the context in which they are used.

Within the research agenda that I am suggesting here, I operate on the argument that indexes are signs that refer by means of either proximity or causality. If I link this notion to Deacon's notion of constraints, the implication is that cultural and social phenomena can, indexically, be signs of the constraints that produced them. Rather than asking, in discourse-analysis fashion, what the power issues were that caused the emergence of a social or cultural form, I intend to ask what the semiotic constraints were of which a

social/cultural form is a sign. Rather than asking, in symbolic-interactionism fashion, what the linguistic interactions were that caused the emergence of a particular social or cultural form, I intend to ask what social and cultural phenomena can indicate to us, as indexes, about the semiotic work (translation) that created them by constraining some possibilities.

The real world cannot be distinguished from a fictitious world by any description. It has often been disputed whether Hamlet was mad or not. This exemplifies the necessity of *indicating* that the real world is meant, if it be meant. Now reality is altogether dynamic, not qualitative. It consists in forcefulness. Nothing but a dynamic sign can distinguish it from fiction. It is true that no language (so far as I know) has any particular form of speech to show that the real world is spoken of. But that is not necessary, since tones and looks are sufficient to show when the speaker is in earnest. These tones and looks act dynamically upon the listener, and cause him to attend to realities. They are, therefore, the indices of the real world. Thus, there remains no class of assertions which involve no indices unless it be logical analyses and identical propositions. But the former will be misunderstood and the latter taken as nonsensical, unless they are interpreted as referring to the world of terms or concepts; and this world, like a fictitious world, requires an index to distinguish it. It is, therefore, a fact, as theory had pronounced, that one index, at least, must form a part of every assertion. Peirce: CP 2.293 Fn P1 p 166 Cross-Ref:††

(CP 2.337)

The quote is relevant to my argument, because it makes the case that meaning is constructed in different ways. The way in which indexes contribute to the construction of meaning is by indicating reality, when it is meant. A theory of translation should make room for all types of meaning-making, which is one of the reasons why the study of indexes is important.

I define an Index as a sign determined by its dynamic object by virtue of being in a real relation to it. Such is a Proper Name (a legisign); such is the occurrence of a symptom of a disease. (The symptom itself is a legisign, a general type of a definite character. The occurrence in a particular case is a sinsign.)

(CP 8.335)

There may be a mere relation of reason between the sign and the thing signified; in that case the sign is an *icon*. Or there may be a direct physical connection; in that case, the sign is an *index*. Or there may be a relation which consists in the fact that the mind associates the sign with its object; in that case the sign is a *name* [or *symbol*]. Now consider the difference between a logical *term*, a *proposition*, and an *inference*. A term

is a mere general description, and as neither *icon* nor *index* possesses generality, it must be a name; and it is nothing more. A proposition is also a general description, but it differs from a term in that it purports to be in a real relation to the fact, to be really determined by it; thus, a proposition can only be formed of the conjunction of a name and an index. An inference, too, contains a general description.

(MS 909; 1.372, 1887–88)

From the two earlier quotes, it is clear that indexes indicate real relations, i.e. relations built on or referring to reality. Yes, sure, not all relationships of meaning are real, or of the nature of Seconds. Some are iconic (a relation of reason) or symbolic (that the mind associates that sign with its subject), but some are, indeed, indexical, indicating reality. They are relations of real space-time or real causality, thus, giving meaning to reality.

As I indicated earlier, indexes are a relatively disregarded group of signs, but work done in anthropology, especially by Parmentier (2016) and his group, as well as in social semiotics, provide some indication of how culture can be interpreted as an indexical sign of the process of its own emergence. Regarding studying the social or cultural, Parmentier (2016, p. 11) argues that, in social-semiotic studies, in general, and in anthropological studies using semiotics, in particular, indexicality is used to contrast the ‘decontextualized, referential value of linguistic signs’ with the ‘contextualized, indexical, or pragmatic mode of meaningfulness’ that links language and social life. The point is that indexicality has to be grounded in a particular context. Language, which can be abstract and decontextualized, has the advantage that it can convey much more meaning, which is why it is theorized by Peirce as a more developed sign system than indexes. However, it has been pointed out by, among others, Deacon, (2016), Merrell (2003b) and Sebeok and Danesi (2000), that even abstract sign systems, such as language, need to be grounded, which is the task of iconicity and indexicality. Silverstein (1976, p. 54) then argues that cultural artifacts, in contradistinction from language, are to be classified as iconic-indexical sign systems, because of their pragmatic contextuality. In other words, one cannot study cultural artifacts in the abstract and symbolic—only in context. Parmentier (2016, p. 15) phrases this insight elegantly:

Given that social life is largely concerned with human interaction and the objectification of meaning in material objects, any attempt to analyse the indexical dimensions of culture as if they were purely symbolic, as in the language of flowers or symbols of empire, would be misguided.

Because indexes are signs of Secondness, or Otherness, they are signs that presuppose a stronger link to reality than symbolic signs. What I mean by this is that the conventional relationship between a symbol and its referent implies that Secondness, otherness, in particular, the brute Secondness of

matter, need not play a role in this relationship. If one thinks in terms of this kind of sign only, it is easy to be an idealist or a constructivist. Because the conventional relationship between representamen and object is to be constructed mentally, as a Third, and is malleable, this mode of semiosis easily leads one to believing that all meaning is constructed by the mind and exists in the mind only. However, when one grants that there are also indexical signs, signs that presuppose a material context and causal relationships to function, one starts realizing that the other, the context, the environment, also plays an important role in the construction of meaning. Meaning is always constructed, sure. But meaning is quite often co-constructed, that is, co-constructed under the constraints of reality (Deely, 2007, pp. x–xxxiv).

One of the problems with indexical signs, which I shall not try to solve here, is their communicability. Parmentier (2016, pp. 15–16) found that asking people about the process of creating indexical signs usually does not render satisfying results, because they tend to focus on the product of semiosis, rather than the process. He addresses the matter with reference to Silverstein's distinction between presupposing and creative tendencies in indexicality. The presupposing tendency refers to indexes of which the 'contextual anchor must be known prior to the instance of the sign,' while the creative tendency refers to 'signs whose very occurrence generates in reality or at least in cognitive salience the contextual matter' (Parmentier, 2016, p. 15). The other problem with indexical signs is that they are often translated into what Parmentier (2016, p. 16) calls 'decontextualized semantic regularities'—this is an example of Seconds being translated into Thirds, which means that the particularity of the pragmatics and context are lost.

To conclude, society/culture could be conceptualized as a sign of the processes that created it. It could be a sign of the meaning-making responses of human beings when they are faced with an environment. Deacon argues that society/culture was created by imposing constraints on semiotic processes. Interpreting society/culture as an index of the processes of the translation (semiotic work) that went into its creation is the aim of the research agenda I suggest.

6 Pointers for a Research Agenda to Study the Emergence of Society/Culture

The conceptual framework that I provided up to now provides a broad scope for empirical research as it is currently performed in the various approaches to translation studies, multimodality studies, cultural studies, bio-semiotics, and semiotics at large, in other words, fields that study semiotic work. The categories of representamen translation, object translation and interpretant translation, as well as the possibility of creating conceptual sub-categories for intra-, inter-, and extra-systemic forms of translation, allow for translation studies to be involved in wide-ranging work, from traditional interlingual translation and hermeneutics, to all of the 'trans' and 'inter'

studies to which I refer in Chapter 1. Because it provides a unifying framework, it also provides scope for comparative work between the approaches in translation studies, internally, as well as between translation studies and the other fields.

While my aim in this book has been to expand the notion of translation itself, and while I would like nothing better than to see a broad translation studies built on this conceptualization, I do not necessarily expect this to happen. What is much more likely to happen if I am able to convince scholars that mine are fruitful suggestions, is that scholars from various fields of study would use some of the conceptual tools I provide. Another issue is that, while it is possible to conceptualize such a broad field of study, it is not possible to study it empirically at this broad level. In rounding off this book with suggestions for an empirical research agenda, which I hope to follow up with a book to prove that it is possible, I suggest a narrower agenda for a research project based on the aforementioned. Within this broadly conceptualized field of translation studies, my own particular research interest is the emergence of social/cultural reality, what is also called in some circles, 'development.' I do think that my conceptualization of translation, linked to the aspects of complexity and indexicality as set out earlier, provides me with the conceptual tools to suggest a particular research agenda for studying the emergence of social/cultural reality.

Based on a position that conceptualizes translation in terms of negentropic semiotic work, if my conceptualization holds, scholars would be ideally posed to study the kind of practices that lead to social or cultural phenomena or processes, seeing that the latter are semiotic process-phenomena. In my view, I do not posit a particular theory of translation. Rather, what I propose is a meta-theory or philosophy of translation, which should be able to explain any particular approach to translation, whether more narrowly linguistic or whether broadly sociological/ideological, whether focused on one mode or medium or whether multimodal or multimedial, whether the interest is more neo-structural or whether the interest is ideological, critical, or ideational. It now remains to narrow down this broad conceptualization into a research agenda that could lead to empirical research and a better understanding of the empirical reality around us. This research agenda would, broadly, be interested in the semiotic work (translation) that plays a role in the emergence of social/cultural phenomena, bringing together (my idea of) translation studies, cultural studies, sociology, anthropology, and development studies. This kind of thinking poses a first research question:

*WHAT WOULD IT TAKE CONCEPTUALLY TO TRANSPOSE THE NOTIONS OF
CONSTRAINTS AND ATTRACTORS TO THE EMERGENCE (DEVELOPMENT)
OF SOCIETY/CULTURE?*

Recently, an interest in linking translation studies to development studies has emerged. Apart from my own work (Marais, 2014, 2017, 2018), Delgado Luchner (2015) and Chibamba (2018) have written PhDs on the topic,

and a research group under the leadership of Footitt (2017, 2017, Tesseur, Forthcoming) at Reading University has been working on translation in non-governmental organizations. While much of this interest is still in the budding stage, I would like to explore what it could hold. Although it is a legitimate endeavor to study the role of interlingual translation in the execution of development practices (as the Reading group does), I would, once again, argue that translation studies need not be limited by a linguistic bias in this regard. Taking a full semiotic view of translation, as set out in the earlier chapters, allows one to study translation as the semiotic work that is done in order to create society and culture. When I talk about translation and development, I have this broader conceptualization in mind, namely how new social and cultural phenomena emerge from semiotic work and how particular socio-political constraints (as conceptualized in development studies, see Marais & Delgado Luchner, Forthcoming) create attractors in this regard.

In search of this goal, I thus suggest a link between Latour's ANT and Deacon's notion of constraints, which I explored earlier in this chapter. Rather than assume culture or society, as Latour argues, I suggest that we follow in detail the practices that constrain 'incipient signs/sign systems,' to turn them into 'subsequent signs/sign systems' according to the interests of the sign producers and sign users. By signs, I mean anything that has been created by human endeavor in response to an environment, whether the latter is natural, social, or cultural. Because Deacon's notion of constraints are based on, but not identical to, counterfactuals, I suggest elsewhere (Marais, 2019) that one could combine possible-worlds theory with narrative theory, to come up with a qualitative method for studying the qualitative probability of constraints as they are enacted in semiotic work. I suggest the following research question to lead further investigation into this aspect:

WHAT METHODOLOGY WOULD ONE USE TO STUDY THE CAUSAL EFFECT OF THE ABSENTIAL (CONSTRAINTS) IN SOCIAL/CULTURAL STUDIES IN A QUALITATIVE WAY?

A research paradigm focused on social/cultural emergence should, in my view, investigate the relationship between entropy and negentropy in culture and society. While Deacon is trying to provide a unified theory of matter and mind, and while he is correct in arguing that such a theory should explain mind without invalidating the laws governing the physical and material substrate of mind, it seems logical that culture and society, though subject to the laws of entropy, are not subject to them in the same way. For instance, where certain thermodynamic processes are irreversible, I have argued in Chapter 5 that cultural processes can be remade. Also, it might be relevant to improve our understanding of the interplay between homeo-, morpho-, and teleodynamics in cultural systems. Deacon indicates that it is the interplay of these processes at different levels that result in constraints, which cause the emergence of new forms. I, for one, do not yet understand how this would

work in cultural systems. Would one, for instance, describe cultural systems that have attained a particular stability as homeodynamic, following ‘the normal flow of things’? I am thinking here of political or religious or fashion trends. In order to change them, morphodynamic semiotic work has to be done. So, let me rather put it as a question that needs more research:

*HOW DOES THE TENSION BETWEEN ENTROPY AND NEGENTROPY
PLAY OUT IN SOCIETY/CULTURE AND HOW ARE HOMEO-, MORPHO-,
AND TELEODYNAMICS INTERRELATED IN THE EMERGENCE OF
SOCIAL/CULTURAL PHENOMENA?*

As indicated earlier, when considering fashion or political trends, we can descriptively explain that a particular trend is popular. When we try to explain why that trend is more popular than other trends, however, we run into problems. We tend to explain that, once a trend is established, it acts like an attractor, a tendency toward which things move, but can we explain why it became a trend in the first place? Like Latour argued about society, it seems that we assume the very things we need to explain. The question noted earlier would thus include a wide array of research questions about entropy and negentropy in society/culture.

The previous question leads to a further question that is entailed in Deacon’s work:

*IF INTENTION HAS CAUSAL EFFECT, IS IT POSSIBLE TO CONCEPTUALIZE
A SYSTEMS THEORY IN WHICH INTENTION IS A CAUSAL FACTOR?*

In the intellectual movement of which my work is part, scholars from both the natural and human fields of study are re-exploring Aristotelian causality, in particular final causes (Green, 2013). Deacon coined the term ‘ententionality’ to express his interest, and Deely (2007) has written a book to argue that and why semiotic systems are intentional. However, systems theories usually work like theories of energy or information—or society. They use statistics to obtain a generalized average of a particular domain or population. Thus, if one argues that the temperature in a room is 82° F, it does not mean that every single molecule in that room has a temperature of 82° F. It means that, on average, the temperature of most of the molecules are 82° F. Similarly, if we were to find that 60% of men are misogynists, it does not mean that every one of those men hate women in the same way. In the same way, when systems theories think about the emergence of social or cultural forms, they do not deal with intention. They bracket it out, as it were. However, if Deacon and Deely are right in that intention has causal effect, we need to find ways of factoring in intention as a causal factor in humanities studies—in a qualitative way. Whether this means that we have to step out of systems theories or whether systems theories can be adapted, is to be seen.

Lastly, I suggest that the theoretical potential of Peirce’s pragmatic theory of semiotics, in particular indexes, be investigated further and tested empirically:

*HOW COULD PEIRCEAN SEMIOTICS, IN PARTICULAR WHEN ONE VIEWS
SOCIETY/CULTURE AS AN INDEXICAL REPRESENTAMEN/INTERPRETANT,
CONTRIBUTE TO UNDERSTANDING THE EMERGENCE OF
SOCIAL/CULTURAL PHENOMENA?*

In my view, Peircean semiotics' notion of index offers a very useful conceptual tool for studying society/culture. If one were to argue that social and cultural phenomena are the result of meaning-making processes, and thus interpretants, Peircean semiotics argues that, in the semiotic process, interpretants become representamens in a new cycle of semiotic process. This means that we can treat social and cultural phenomena as indexical representamens of the processes that caused them. As argued earlier, indexical signs give access to meaning that is pre-lingual. However, this line of investigation raises numerous questions that could drive a research agenda. What methodology would one use? How would one translate pre-lingual information into lingual information?

I, thus, suggest these five questions as the main drivers of a research agenda that translation studies could use to study the emergence of social/cultural process-phenomena. These questions would each generate numbers of sub-questions that can still be worked on, but those will have to wait for another day.

Notes

1. I am well aware that the notion of 'mind' has fallen out of favor in certain circles, circles that I would typify as reductionist or eliminative materialism. I choose to maintain it as a shorthand for all ententionality in human organisms.
2. I provide only a few quotes from Peirce in this section. Readers can also check the following sections from Peirce for more on his views on indexicality: 1.363, 1.369, 1.372, 2.192, 2.230, 2.265, 2.284, 2.286–91, 2.294, 2.299, 2.305, 2.310, 2.330, 2.336, 2.434, 2.460, 4.447–8, 5.73, 5.75, 8.41.

7 Musing About the Future of Reality in the Humanities

The Cartesian schism, as far as I understand it, is alive and well in current scholarship across a wide variety of disciplines. One of its implications is that most scientists regard ‘things’ like mind, consciousness, intention, will, and love as epiphenomenal at best and non-existent at worst. For the humanities, this implication means that most scholars just bracket out physics, matter, and biology and focus on ideas about and representations of ‘things.’ Both perspectives are reductionist, the sciences reduce mind to matter, and the humanities reduce matter to mind. In many cases, the term ‘mind’ has become anathema because neuroscientists now know more about the brain and computer scientists now know more about its ‘computing abilities.’ In both cases, reality has become a problem. In the case of the sciences, the reality of mind, intention, love, and the like is questioned, and in the case of the humanities, the reality of (and knowledge of) physics, matter, and biology is questioned—or just ignored. In the first case, we have matter without meaning, and in the second case, we have meaning without matter. Obviously, this problem is not the simple binary that I present here as there are some in-between positions. However, granted the complexity of the problem, reality seems to be at stake in this debate. It seems easy for scholars steeped in the symbolism (in the Peircean sense) of language to forget or ignore the groundedness of even symbols. It seems equally easy for scientists steeped in the reductionism of scientific method to forget or ignore the symbolicity (again in the Peircean sense) that emerges from matter.

In this book, I aligned myself with a growing number of scholars from both the humanities and the sciences who are looking to find a way to bridge the Cartesian schism. This effort looks at finding ways to suggest a unified theory of matter and mind, a theory that holds to the reality of both, a theory that rejects reducing either to the other. Scholars who show the way here include Terrence Deacon with his notion of ‘the absential,’ John Deely with his notion of semiotic realism and Jesper Hoffmeyer (and the field of biosemiotics) with the notion of code duality. One key to such a unified theory seems to be process thinking and the emergence of new forms of reality from constraints on these processes, a view that would, in my understanding, also be in line with quantum physics. At this point in

history, I think scholars in the humanities owe it to physicists, chemists, and biologists to reciprocate in this debate. While our colleagues in the physical and life sciences are trying to explain the emergence of mind from energy-matter, we from the humanities could reciprocate by trying to explain how energy-matter constrains mind, how mind is always based in energy-matter, and how communication and meaning-making always entail some form of energy-matter and emerge from energy-matter.

Taking part in this dialogue raises serious scholarly questions, though. If one wants to participate in dialogue between the natural sciences and humanities, how does one respond to the commonly accepted view in the natural sciences that no phenomenon in the universe escapes the laws of physics such as the law of energy conservation and the law of entropy? In what way does culture obey the laws of physics? If no new energy can be created, where do new ideas come from, and how could an infinite number of ideas emerge from limited energy and matter? If ideas emerge from energy and matter, but are themselves neither energy nor matter, what does this mean for ideas, meaning, and culture? If ideas and culture are constrained by energy and matter, how could we study these constraints and the relationships between constraints and what have emerged through constraints? As I asked in Chapter 6, how do homeo-, morpho-, and teleodynamic processes play out in culture? Furthermore, what does it add to our understanding of culture if we consider them as emergent from physics and matter? Are we not better off to ignore energy and matter when we study culture and ideas?

The kind of thinking espoused earlier raises another, particular, question. What is the relationship between mind and culture? Scholars like Deacon have put forward strong arguments for the ways in which mind emerges from matter, but did they with those arguments explain the emergence of culture? In other words, I am wondering whether someone like Deacon has explained culture or merely the possibility to culture. Does culture not entail an opposite process to the one Deacon suggested? Deacon explained how mind emerges from matter, but culture is the materialization and energization of mind into artifacts and practices, is it not? Furthermore, how do the laws of physics play a role in this processes? How do ideas, meanings, mind become materialized, and how are they constrained by the laws of physics? Is it as simple as 'if you can dream it, you can do it'?

I am aware that merely asking these questions would, in certain circles, be regarded as blasphemous. Did we not come up with cultural relativism and constructivism exactly to escape evils like racism and sexism? Do we really want to go back to thinking about humans and their cultural expressions in terms of physics, matter, and biology? Is our world not evil enough for us not to entice other (already buried) evils?

I think there are at least two reasons why we have to dare (again) to explore this avenue. The first is because it is inevitable. Human beings are subject to the laws of energy and matter, whether we like it or not, whether politicians and others have used it to our disadvantage or not. Human

beings are living organisms that share with plants and animals not only DNA but also ways of making and taking meaning. In the humanities, we limit our understanding of ourselves and our world as long as the humans and the culture we study are conceptualized as immaterial and disembodied only. As long as we do not see culture and nature as a complex weave which renders many possibilities because it is an unfolding process, we limit our potential for understanding humanity and the human condition. Would it not enhance the understanding of power in the array of humanities fields if we were able to link this understanding to energy, matter, and biology? Would it not enhance our understanding of development if we were to understand notions such as 'cultural energy,' material constraints on development and the like, linking these to notions such as homeo-, morpho-, and teleodynamics? If every teleodynamic processes emerges from homeo- and morphodynamic processes, would it not enhance our understanding of development if we were able to factor in the homeo- and morphodynamics of a particular development effort?

The second reason why exploring this avenue is crucial is ethical. As I am writing, the world seems to be steeped in fundamentalisms of various religious, social, and political persuasions. It leaves me with the question: Why is the progressive or liberal project, to which I have aligned myself since my teenage disillusionment with apartheid, seemingly failing. What has happened to more than two centuries of liberty, equality, and fraternity or to the liberal movements of the 1960s? Here is one crazy possibility. I assume that the liberal project faces numerous problems and that one solution would not solve all of these problems, but I would nonetheless suggest that humanities scholars use this crisis and the debate to which I referred earlier to think about at least one thing that has, in my view, been neglected in the humanities: reality. I think that the liberal project has failed to convince people of its logic because it tried to do so by bracketing out or erasing reality. The general strategy by liberalists has been to counter the everyday reality of living a life of faith, of family, of hard work to make ends meet, of living in a world where women and men are generally experienced as being different, of in- and out-groups (whether racial, social or economic), in other words, all the typically conservative aspects of society and culture, by arguing that none of these are real. Rather, they are mere constructions and to be questioned and changed, at best, or belittled and erased, at worst.

While it is true that all of the aforementioned, and more, are constructions, pointing this out does not solve the problem. First, if we have arrived at the point where everything is a construction (where we should indeed be), we are back at square one. Second, trying to strengthen your own position by relativizing the position of your opponent is counterproductive because if all positions are relative, so is yours. Third, if physical, material, and biological reality is process, there is no validity to the argument that it is more conservative than cultural reality. In fact, constructivist views about reality that tend to construct reality in this way or that are inherently more

conservative than reality itself because it fixes a particular view of reality. The problem with constructivist or idealist thinking is that, in its efforts to show the opposite position as fundamentalist, it becomes fundamentalist itself. If any single human being is able to construct reality the way she wishes (let us say, in a liberal way), she becomes a god and thus fundamentally unchallengeable. However, if we posit a world in which there are Seconds, i.e. others, and where we and the other are co-constructed, neither the I nor the Other is a god. We are both Others for the Other. In my view, it is only when I realize that I am an Other to Others, that we can start talking about ethics. It is only when I am an Other to Others that ethics enter the fray. Then liberal ethics is not aimed at telling the other that it is wrong because this is the way I see the world. Liberal ethics need to look elsewhere for the efficacy of its argument, and we need to figure out where this 'elsewhere' is.

In my view, then, the liberal project needs a dose of reality. I do not claim that this dose of reality will solve all of its problems, but I still think it needs a dose of Secondness, of Otherness. It needs to realize that 'I' am an Other. It is not the Other who is an Other. I am an Other. So, if I am an Other, how does it constrain my ethical actions to other Others? If my heterosexual Otherness is other to a homosexual Other, if my male Otherness is other to a female Other, if my white otherness is other to a Black Other, if my middle-class otherness is other to a poor Other, I need to think of myself differently. I do not have to deal with either the Other or myself first. I need to realize, as Deely implied, that I am as much an Other as is everybody and everything else. I have to start with an 'Us' rather than myself or an Other. Before there is an I or an Other, there was and will be an Us.

I became acutely aware of this problem at a conference where a speaker used reception theory to, in her words, 'kill the author' of an aesthetic object in an effort to impose her own interpretation on the aesthetic object. When I asked her whether this does not mean that she wants to be god, she readily agreed and saw no problem with this. This made me think: Do we need to be gods to have our own views? Do we need to erase the Other to be us? Is the nature of our existence not such that we live in co-existence, in Ubuntu, with Others, other views, other ideals, other bodies? Do we have to be this selfish to be liberal?

Whereas at different points in history, we needed to be liberated from the church, autocracy, the empire, nature, and various entrenched social and cultural tendencies or constructions, I wonder whether we currently do not need to be liberated from the 'I,' from ourselves, from our individualism and its concomitant agency. I wonder whether we do not need to be liberated from being the constructors of the universe to being co-constructed by innumerable other agents such as people, animals, plants, bacteria, energy, matter, and laws of the universe? I wonder whether ethics is about the Other and her constructedness, or me and my constructedness, or us and our constructedness. If Deely was right, a true postmodern understanding of reality entails seeing us as woven into the web of existence in which there was an

Us before an I or an Other, in which Us, I and the Other are all equally relative and fundamental, and in which the problem of fundamentalism cannot be solved by effacing reality.

The kind of semiotic realism that is emerging at the interface between science and humanities might offer some direction in this regard . . . or it might not.

Time will tell as this project, like all ententional ones, remains incomplete.

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Index

- abduction 35, 51, 88
absential 49, 135–136, 160–162, 168, 179, 182
actant 166
actor network theory 165
adaptation 3, 15, 28, 44, 146
affordance 5, 8, 45, 67, 75, 77–78, 107
Aguiar 56, 73–76, 121, 163
anthropocentric 54, 60, 70, 84, 100, 115–116, 162; anthropocentrism 60, 64, 82; anthropomorphism 117; anthroposemiotics 116
Apter 122
Aroch Fugelli 4
arrow of time 37, 124, 129, 141
Atã (Ribeiro Pinto) 76
attractor 84, 128, 136–137, 161, 163, 165, 178–180
autopoietic 31–32
avalanche 54
- Bachmann-Medick 39, 42
bacteria 49, 165, 185
Baer 31
Bak 54
Baker 12, 23–24, 30, 43
Bandia 7, 30
Baraldi 34–35
Barbieri 114–115, 117
Barrett 160–161
Barthe 149, 166
basin 137, 161
Bassnett 17, 28–29, 39, 69
Bedau 134–135, 160
Benjamin 127
Berman 43
Bery 39
binary 27, 53, 61, 68–69, 73, 80, 122, 142, 182
- biochemical 55; biosemiotic viii, 8, 10, 15, 22–23, 28, 54, 67, 70, 73, 77, 82, 85–86, 114–119, 128, 153, 162, 167, 177, 182; biotranslation 63, 115
biosemiotics 114
Biosemiotics Journal 114
bodymind 95, 132
Bogic 165
Bokulich 136, 161
Borodo 41
boundary 32, 136
Bourdaa 24
Brisset 62
Buden 39
Budick 122
Burkette 39
Buzelin 31, 34–35, 165
- Cahoone 116
Callon 149, 166
Cariani 64
Cassell 8, 136, 161
cause 2, 4–6, 32, 37, 81, 89, 96, 109, 112–113, 126–127, 129, 135, 137, 142–145, 147, 149, 154, 156, 160–161, 165, 167, 169, 174–175, 179–181; causal 93–94, 96, 130, 135, 145, 160–162, 165, 173, 177, 179–180; causality 32, 87, 96, 159, 161, 170–171, 173–174, 176, 180; causation (upward or downward) 134–136, 160
cell 40, 64, 117, 135, 161
Chalmers 135
Chandler 48, 84, 89
chaos 6, 54, 88, 124, 130, 134, 138
Chesterman 17, 67
Chibamba 178
Clayton 115

- Cobley 84, 89, 115
 code 14, 17, 55, 100, 117–118, 122,
 138, 141, 146–147, 167, 182;
 coding 78, 117, 167
 Colapietro 62–63
 Coldiron 39
 Collier 154
 comparative 6–7, 18, 115, 178
 complex 5–6, 8, 9, 11, 14, 25, 30,
 32–33, 50, 54, 56, 61–62, 66, 68,
 75–76, 79, 80, 82, 88, 92, 95, 116,
 118, 125, 127–128, 130–131,
 133–134, 136–139, 142–143, 147,
 149–150, 155, 160–161, 163, 170,
 184; complexity 6, 9, 20, 32, 35, 37,
 42, 49, 52, 54, 56, 65, 68, 71–76,
 79, 84, 88, 92–93, 100, 119, 121,
 123, 128–130, 133–134, 136–138,
 142, 150, 152, 157–158, 163, 170,
 178, 182; complexly 5, 54, 65, 141
 consciousness 31, 35, 59, 88, 93, 105,
 116–117, 129, 131, 138, 150, 153,
 162, 182
 constrain 4, 6, 31, 45, 72, 74–75,
 91, 93, 107, 123, 125, 130, 132,
 135–136, 140–141, 153, 159–160,
 162–163, 175, 179, 183, 185;
 constraining 56, 91, 106, 110;
 constraint 4, 6–8, 11–12, 25–26, 31,
 56, 67–68, 72, 74–75, 81, 84, 91,
 109, 117, 121, 123, 125, 127–128,
 134, 137, 139–140, 158–163, 165,
 167, 171, 174, 177–179, 182–184
 construct 4, 12, 15, 24–25, 28, 39–40,
 45, 53, 55, 62, 69, 73, 75, 77, 85,
 93, 95, 104–105, 114, 116, 130,
 150–153, 162–163; constructing
 48, 68; 79, 92, 112, 116, 130, 150,
 166, 170, 175, 177, 184–185;
 construction 48, 104, 110, 112,
 114, 116, 130, 150, 153, 175, 177,
 184–185; constructive 25, 150;
 constructivism 38, 40, 150, 153,
 183; constructivist 24, 40, 79, 116,
 151, 168, 177, 184–185
 corporeal 62
 Corrington 119
 Coscelluella 29
 counterfactual 161, 179
 Cronin 68, 121

 Damaskinidis 70
 Danesi 7, 49, 70, 77–78, 81, 153,
 166, 176
 Deacon 8–9, 49, 75, 78, 88, 97, 111,
 114, 134–136, 158–163, 165, 167,
 174, 176–177, 179–180, 182–183
 deduce 116, 173; deduction 35, 88;
 deductive 4, 121
 Deely 11, 14–15, 17, 22–24, 31, 38,
 41–42, 48, 56, 59, 62, 65–66, 68, 71,
 78–79, 84–85, 89–90, 92, 104–105,
 111, 130, 149–153, 161–162,
 165–166, 177, 180, 182, 185
 degenerate 29, 70, 128, 131, 154, 159,
 165, 168–173; degeneracy 52, 170;
 degeneration 128
 Deledalle 119
 Deledalle-Rhodes 30
 Delgado Luchner 2, 178–179
 determine 2, 12, 14, 20, 25, 45, 53, 59,
 67, 69, 71–72, 74–75, 86, 88–89,
 91–94, 96, 100, 105, 108, 110–111,
 115, 117, 122–124, 126, 130, 132,
 136, 140, 147, 149, 152, 154, 156,
 167, 174–176; (in)determinacy 122,
 124, 126; (in)determinate 122, 126,
 128, 131, 140; determination 54,
 93, 110
 Devaux 165
 De Waal 86–89, 97, 155
 Diamond 46
 dissipation 163
 Dizdar 42–43
 DNA 5, 21, 28, 45, 64, 117, 124, 184

 Eco 22, 37, 47, 56–60, 78, 83–84, 89,
 108, 111–112, 118, 140, 148–149,
 165, 167
 ecological 68, 82, 118, 121
 eddy 60
 edge, of chaos 54, 138
 effect 27, 53–54, 72, 75–76, 87, 89,
 93–95, 97, 125–126, 135–137,
 145, 147–148, 160–161, 165, 169,
 179–180
 ekphrasis 3, 57
 El-Hani 74–76, 121, 137
 eliminative materialism 161–162, 181
 Elleström 13, 47, 79–80
 embodied 74, 138, 171
 emerge 4–5, 9, 24, 31–32, 37, 39–40,
 51, 61, 64–66, 76, 88, 94, 103,
 114, 122, 126–127, 130–131, 134,
 136, 150, 158–163, 165, 178–179,
 182–184; emergence 5, 8–10, 22,
 31–32, 34–35, 41, 49–51, 53, 66,
 73, 82, 120–121, 124, 134–136,

- 149, 157–165, 167–169, 171,
174–183; emergent 7, 25, 56, 75,
116, 127, 130, 161; emergentists 8;
emerging 50, 53, 75, 117, 164, 186
endosemiotic 61
engender 90, 98–99, 103, 130–132,
157, 174; engenderment 155, 174
ententional 158–159, 162–163, 186;
ententionality 161–162, 180–181
entropy 37, 54, 68, 124, 126, 128, 159,
163, 179, 180, 183
equilibrium 101, 159
eutranslation 63, 115
Even-Zohar 72
extralinguistic 62; extramusical 145;
extra-systemic 145, 157, 177
- Falkner, G. 116
Falkner, R. 116
Favareau 15, 49, 114–116, 118, 162
Feinauer 2, 52, 66
Finnegan 7
firstness 15, 35–36, 49, 51, 79, 86–88,
91–92, 97–99, 102, 137, 146,
155–156, 173
Fitzgerald 170
Footitt 179
fractal 127
Fuchs 41–42
fuzzy 56, 98, 137, 142–143, 145, 157
- Gambier 13, 33–34, 46
Gentzler 17, 30, 39, 40
glottocentric 60; glottocentrism 60
Goethals 63
golem 159, 161
Gorlée 26, 35–36, 47–56, 61–64, 75,
88–89, 126, 144
Görnitz 28
Green 161, 180
Greimas 34, 69–70, 84, 153, 165–167
Grygar 117
Gustafsson 74
- habit 5, 35, 50, 74–75, 84, 88, 97, 124,
134, 136, 138–139, 156–157, 163,
165, 169–170, 174
Halliday 77
Hawkes 84
Henning 114–115, 162
Hermans 17, 30, 109, 140
hierarchical 57, 87, 137, 157
Hjelmlev 64
Hodgson 63
Hoffmeyer 49, 114–117, 136, 153, 182
Holland 134
Holmes 9, 12–13, 18, 20, 54, 64
homeodynamic 159–160, 179–180,
183–184; homeostasis 159, 163
homunculus 159
House 34
Humphreys 134
- icon 17, 52, 55, 82, 95–96, 107, 113,
133, 168–169, 171–176; iconic 52,
55, 62, 71–73, 76, 96–98, 118, 133,
139, 147, 155–156, 176; iconicity
17, 52, 62, 69, 71, 73, 75, 132–133,
164, 176
icosis 36, 120
idealism 8, 11, 24, 38, 59, 79, 87–88,
116, 148–150, 152–153, 162–163;
idealist 11, 22, 24, 38, 42, 44, 92,
150, 164, 168, 172, 177, 185
incipient 30, 37, 53, 66, 72, 74–75,
81, 84, 103, 123–125, 128, 140,
145, 179
index 52, 82, 95–97, 106, 113, 133,
159, 165, 168–177, 180–181;
indexical 52, 55, 71–72, 96–99,
113, 118, 133, 147, 155–156, 165,
170–172, 174, 176–178, 181;
indexicality 17, 62, 71, 76, 132–133,
164–165, 167, 174, 176–177, 181;
indexically 174
induction 35, 88
infodynamics 68
instinct 113, 117–118
intentionality 115, 150, 153, 1
interact 4, 28, 41, 76, 161; interacting
35, 66–67, 76, 78, 153; interaction 5,
14, 28, 41–42, 74, 76, 79, 85, 117,
125, 128, 130, 153, 161, 175–176;
interactional 42; interactionism 164,
175; interart 3, 5; interdependent 94,
131, 151, 153; interdisciplinary 33,
40, 45, 115; intered 138; interface
79, 115, 150, 166, 186; interlingual
1–2, 5, 7–8, 11, 14, 16, 18–23,
25–32, 34–38, 40, 43, 45, 50–51, 53,
58, 65, 70–73, 75, 81–83, 97, 100,
108–109, 111–112, 120–123, 144,
146–147, 177, 179; interlinguistic 6,
48–53, 58–62, 64–67, 69–72, 88,
158; interliterary 144; intermedial
3; intermediality 3, 16, 76, 79–80;
intermediate 116; intermodality 3;
intermusical 145; interplay 6, 38, 54,

- 62, 88, 127, 130, 160–161, 167, 179;
interpolation 110; interposition 110;
interrelate 76, 94, 103, 129, 131,
142–143, 156, 180; interrelationship
20, 131; intersemiosis 54–55, 69;
intersemiotic 2–3, 13–14, 16, 25–26,
29, 35–37, 44–53, 55–59, 61–62,
64–65, 69, 71–73, 75–76, 81–82,
112, 120, 122, 133, 141, 144;
intersemiotically 73; intersubjective
80, 90, 150–152; intersystemic 57,
61, 145
- interpretant 4, 29, 49–50, 53, 56–61,
63, 67, 73–75, 78, 81, 88–99,
103–114, 117, 119, 120, 123, 126,
128–132, 138–139, 141–144,
146–152, 154–157, 164, 169, 172,
174, 177, 181
- intralingual 2, 14, 34, 43–44, 52, 72,
105, 108, 122, 144; intraliterary
144; intramusical 145; intrasubjective
80–81; intrasystemic 145
- Iser 122
- Jakobson 7, 11, 13–16, 19, 21, 28–29,
35, 43, 45, 49–52, 55–57, 65, 70,
72, 80, 103–105, 120–121, 144, 146
- Jenkins 3
- Jordan 134
- Jousse 7, 68, 129
- Juarrero 115
- Kandamkulthy 146
- Kaplan 171
- Kauffman 49, 114–115, 162
- Ketola 40–41
- Kim 135, 160
- Kinnunen 165
- Kleisner 117
- Korning Zethsen 43–44
- Kosick 39
- Koskinen 165
- Kostopoulou 72
- Kourdis 47, 69–73, 147
- Kukkonen 71–72
- Kress 3, 7, 47, 68–69, 77–80, 82,
168, 171
- Kruse 149–150
- Kull 57, 63, 100, 115, 125
- Lambert 40
- Lascoumes 149, 166
- Latour 31, 34–36, 59, 82, 88, 104, 148,
151, 153–154, 165–167, 179–180
- Lefevere 28, 30, 55, 57, 69, 71
- Leone 65
- Lewis 149
- linear (including non-linear) 32, 70, 79,
128–129
- Littau 37–39
- Loenhoff 34
- logocentrism 132
- Lotman 69, 125
- Loula 76
- Luo 165
- Machin 77, 171
- Makalel 3
- Malan 70
- Marais 2–3, 20, 26, 42, 52, 56–57,
63, 66, 68, 100, 115, 125, 127, 129,
133, 137–138, 163, 171, 178–179
- Markoš 117
- Mazrui 4
- McLaughlin 135
- membrane 32, 40, 117, 125, 131, 153
- Merrell 5, 49, 52, 62, 71, 74, 86,
89–90, 94–95, 97–99, 103–104,
121–123, 129–133, 153–155,
170–171, 176
- metacreation 54
- Miller-Naudé 133
- Milton 3, 30
- mind 10, 22, 24, 38, 42, 65–66, 81,
86, 89, 92–95, 105–106, 109, 113,
115, 126, 128, 132, 141, 149–154,
159, 162, 169–170, 175–177, 179,
181–183
- Misak 119
- Molefe 3, 26
- monomedial 67; monomodal 78–79;
monotone 144
- Morin 56, 142
- Mosse 149
- multimedia 3, 55, 66, 79, 146, 164;
multimedial 2, 24, 37, 53, 78, 178;
multimediality 3, 7, 47, 65, 67,
76–77, 82; multimodal 7, 13–15,
22–24, 37–38, 41, 53, 59, 61, 63, 67,
69–70, 77–78, 81–82, 121, 164, 168,
171, 178; multimodality 3, 7, 16, 38,
40–41, 47–48, 63, 66–67, 76–80, 82,
146, 177; multisemiotic 70
- Munday 14, 30
- myosemiotics 116
- narrative 23–24, 161, 166, 179
- Naudé 97, 133

- negentropy 37, 52, 54, 68, 124–126, 128, 136, 179–180; negentropic 4, 46, 53, 68, 121, 125, 129, 136–138, 141, 157–158, 160, 163, 167, 178
- Neubauer 117
- Nicholis 137
- Nicolescu 56
- Nida 13, 16–17
- Nietzsche 23
- Nord 28, 74, 81
- Noth 84, 89
- Nowotny 39
- object (of study) 18, 20, 38, 64; object (Peircean category) 24, 49, 52, 56, 59, 62, 67, 73–76, 86–99, 101–107, 110, 112–114, 119, 123, 126, 128, 130–133, 138–139, 141–144, 146–157, 159, 164–167, 169–170, 172–173, 174–177, 185
- Obono 133
- ocularcentrism 132
- O'Halloran 29
- Ojamaa 65–66, 68
- Olivier de Sardan 171
- Ong 7
- Orrego Carmona 1, 61
- Osimo 66
- Owen 171
- Parmentier 111, 164, 172, 176–177
- Pavel 161
- Peirce 4–11, 14–17, 19, 21–23, 26–27, 29–31, 33, 35–36, 38, 40, 43–53, 55, 57–60, 62–63, 65–67, 69–71, 73–75, 77, 79–82, 84–95, 97–112, 114, 117, 119–120, 122–123, 128–129, 131–133, 137–140, 142–144, 146–150, 152, 154, 156, 164–165, 167, 169–170, 172–176, 180–182
- Petrilli 47, 59–64, 70, 75, 97
- phaneron 35; phaneroscopy 35, 86–87
- phytosemiotics 116
- Ponzio 62
- prelingual 17
- probability 179
- process (negentropic) 53, 138; process (philosophy) 23, 27; process (semiotic) 1, 4–6, 9–10, 18, 26, 30, 35, 37, 42–43, 45, 48, 50–54, 57, 59–60, 63, 65–68, 71–72, 74–76, 78–82, 89, 95, 100, 104, 106–108, 110, 112, 114–115, 117, 119–121, 124–125, 127–129, 131–133, 136–138, 140, 147–148, 152, 154, 157, 159, 162–163, 166, 177–178, 181; process (sign) 52, 54, 62, 90–91, 93–96, 99–100, 103, 105–107, 115–117, 130–131, 143, 155–156, 159, 170; process (translation) 1–2, 4, 6, 9–10, 19, 22, 32, 38, 45, 51, 54–56, 59, 61–64, 67, 69, 73, 76, 79, 81, 83, 85, 90, 104–107, 109, 112, 121–122, 127, 134, 139–140, 143–144, 147, 151–154, 164, 166–167; process-phenomenon(a) 4–7, 9, 50, 83, 115–116, 120–121, 124, 137, 157, 159, 161, 178, 181; processual 68, 75
- Proni 63
- Pryor 136
- Pym 3, 9, 11–12, 44, 58, 150
- Queiroz 3, 47, 56, 73–76, 121, 137, 163
- Quine 122–123
- Ralarala 3
- realism 10, 59, 87, 111, 116, 149–150, 152, 182, 186; realist 24, 44, 79, 87, 92, 152, 168
- relational 24, 68, 74, 84, 116, 124, 126, 130–131, 145, 148, 150, 152, 162, 168; relationality 31, 42, 150, 153, 162, 173; relationally 112, 116, 145, 150, 152
- relationship 1, 4–5, 9, 11, 14, 16, 19–22, 27, 30–32, 34, 36–37, 41, 44, 46, 53, 57, 59–63, 67–68, 72, 74–75, 79, 81, 83, 87–98, 102–103, 105, 107–108, 115–117, 119, 121, 123, 126–129, 131–132, 134, 137–144, 147–148, 151–153, 156, 166–170, 173–174, 176–177, 179, 183; causal 94, 96, 173, 177; complex 5, 128, 150; constraining 91; processual 75; semiotic 68, 75, 88, 90, 92, 116, 139–140, 144, 147, 149, 152; social 140; translational 41
- representamen 49, 53, 56, 59, 61, 66–67, 73–75, 79, 89–99, 103–108, 111–112, 114, 119, 123, 126, 128, 130–132, 138–139, 141–152, 154–157, 164–165, 169–170, 172–173, 177, 181
- resemiotization 3, 29
- retopicalization 3; retranslate (including retranslation/retranslating) 16, 102,

- 127; rewording 14, 57; rework(ing) 3, 145; rewrite(ing) 3, 28–30, 55, 78, 127
 Ricoeur 23
 Risku 165
 Robinson 6, 12, 14, 29, 35–36, 48, 50–52, 54, 85, 88, 105, 120, 126, 128, 144, 148–149
 Rosensohn 119
 Ruthrof 62

 Salthe 63, 68, 137, 145
 Sawyer 41, 164
 Scarfe 114–115, 162
 Schleiermacher 23
 Searle 41, 66, 164
 Sebeok 49, 77–78, 84, 89, 114–116, 118, 153, 166, 176
 secondness 15, 29, 35–36, 49, 51, 86–88, 92, 97–99, 102, 137, 148–149, 155, 172, 176, 185
 semiotranslating 36; semiotranslation 3, 35–36, 54, 65, 126, 144
 sentient 63
 Short 119
 Shreve 46
 Siever 31
 Silverstein 176–177
 Simon 39
 social-cultural 4–5, 8, 10, 104
 sociocultural 4, 51, 77, 81, 158
 Sonneson 77, 80–81
 Sonzogni 7, 36–37
 St André 33
 Steconi 26–28, 30, 52, 128
 Steiner 21–23, 46, 58
 Sturge 30
 subsequent 37, 53, 66, 72, 74–75, 81, 84, 103, 106, 110, 123–124, 128, 145, 179
 supervenience 135–136, 160
 Susam-Saraeva 44–45
 Stütiste 64–67
 symbol 16–17, 52, 55, 71, 95–99, 101, 110, 112–113, 133, 141, 156, 168–172, 174–176, 182; symbolic 16, 52, 55, 71, 82, 96–97, 100, 118, 133, 156, 164, 173, 175–176; symbolicity 132, 164, 182

 Tan 29
 teleodynamic 160–162, 179–180, 183–184
 Tesseur 179

 thermodynamic 37, 51, 55, 110, 119, 124, 126–129, 141, 159, 179
 thirdness 15, 29, 35–36, 49, 51–52, 86–88, 97, 99, 102, 137, 157
 Thompson 115
 Torop 27, 47, 52, 63–69, 75, 115
 Toury 44, 55, 58, 65, 67, 72, 81, 83, 121
 trajectory 56, 60, 75, 84, 123, 127, 134, 136–137, 163
 transaction 39, 102; transcoding 78; transcreation 3, 76; transcription 3, 168, 171; transduction 3, 78; transfeeling 36; transfer 3, 16, 38, 42, 44–45; transfusion 15, 102; translationese 85; transmusic 145; transmutation 14, 56; transportation 33; transpose 29, 178; transposition 3, 22, 100; transuasion 15, 102
 Transmediations Conference 3, 76
 triad(ic) 29, 67, 69, 73–75, 88, 90–91, 93, 103, 112, 129–130, 138, 143–144
 Trifonas 119
 Trivedi 29
 Turner 115
 Tymoczko 8, 12–13, 20, 24–27, 30, 43, 64, 66, 121
 Tyulenev 1, 8, 31–33, 67

 Ulanowicz 116
 Ulrych 62

 Van Doorslaer 13, 33–34, 46
 Van Leeuwen 77–78, 82, 171
 Venuti 12, 17, 30, 46, 75
 Vermeer 28
 Von Uexküll 15, 114

 Westoby 171
 Wheeler 114
 White 161
 Whitehead 5, 123, 126
 Wiener 119
 Wigness 29
 Williams 149–150
 Wolf 31, 34

 Yates 63
 Yoka 69–70, 72
 Young 119

 Zafiri 69
 Zheng 165
 zoosemiotics 116