Machine Translation: A Problem for Translation Theory

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ABSTRACT

This paper argues that machine translation has so far not been identified as a translation theoretical problem. It further argues that this is not accidental but a symptom of certain theoretical and methodological predispositions. These refer to normative moments in the conceptual foundations of those research paradigms in translation studies that are oriented towards the concepts of agency and culture. The aim of this paper is to problematize these predispositions and propose a conceptual framework in which machine translation can be identified as a problem for translation theory and directed towards possible solutions. It will be shown that the concepts of culture, translator and communication must be newly interrelated in order to secure and justify the object-relation of translation studies in the face of new forms of translation.

KEYWORDS: communication, culture, machine translation, methodology, translation theory.

Introduction

The relationship between translation and technology has recently become an object of growing theoretical interest in translation studies concerned not only with the concrete material conditions of translating (Olohan 2011; Pym 2011; also Littau 2011) but also with the socio-cultural functions and effects of translation (Cronin 2003, 2013). These attempts, although they differ in perspective, empirical range and level of conceptual abstraction, can all be read as first attempts at coming to terms with changes in the subject area of translation studies – changes considered significant and profound enough to speak of a "translation revolution" (Cronin 2013).

Despite these efforts, however, the theoretical and methodological implications of these changes for translation research interested in the socio-cultural functions and effects of translation have not yet been realized in a radical enough way: the growing spread and use of *machine translation*¹ in a variety of social contexts, from international organizations to

¹ For now, the term 'machine translation' shall refer to any translation process that is substituted by technical artefacts. I will not distinguish between different types of machine translation systems, or degrees of intervention

interpersonal interactions, cannot be simply considered as changes in the working conditions of professional translators in the 'translation industry' – at least not, if translation studies wants to offer an adequate interpretation of the complex interrelation between translation and modern society.² If this is the ultimate goal, however, a first step towards achieving it is to treat machine translation as a *theoretical* problem, as it puts certain *basic* assumptions about translation in general under empirical pressure³ for the following two reasons:

Firstly, the spread, use and availability of machine translation in everyday contexts of communication and action question the restriction of translation research to an empirical basis defined by the notions of 'professional translator', 'translation industry' and 'post-editor'. These everyday contexts are empirically and theoretically relevant, because they let us observe the degree to which translation permeates and conditions the structures of our lifeworld. Focussing these contexts thus raises the question of how this permeation can be conceptualized⁴ (see "Background fulfilment' and 'keeping-at-hand'" below) and in what sense the concept of 'translator' can continue to function as a basic concept in translation studies (see the section on "'Accidental' translation"). Secondly, machine translation questions the way the relation between translation research and its reference object is organized on a conceptual and methodological level: This is so, because the *distinction* between human and machine translation necessarily identifies translation with processes occurring either in the 'black box' of a living human or a machine. The processes occurring in the 'black box', however, cannot constitute the object of translation research interested in the socio-cultural function and effects of translation because these processes are either technical

by human translators. Such distinctions are not relevant within the framework I am trying to propose because the whole concept of translation underlying such distinction is rendered problematic (see the section on 'machine vs. human translation: a problematic distinction?').

² This position sees itself in line with Cronin's critique concerning the distinction between 'pragmatic' and 'literary' translation in translation studies: "An unfortunate consequence is a division of intellectual labour, where sophisticated, conceptually dense theories are brought to bear on literary practice with non-literary translation seen as the realm of no-nonsense, commonsensical instrumentalism. It is difficult to see, however, how translation studies could be taken seriously as a branch of human enquiry if all the discipline had to offer to contemporary attempts to understand the new global order was a number of fast-track solutions to maximize translation output and quality. Though these solutions are important at an operational level, they are of little help in allowing people to understand *why* translation is so important in late modernity" (2003:2).

³ Basic assumptions can only be put under pressure or 'irritated', not falsified by empirical data, because they decide what comes into consideration as empirical data for scientific enquiry in the first place (thus excluding data which could falsify the basic assumptions) (Lindemann 2008). The decision to isolate machine translation as a theoretical problem is strategically motivated: It is an ideal vantage point for theorizing the relationship between translation and "late modernity" (Cronin 2003:2), because it foregrounds the current socio-cultural relevance of translation (increased translation demand and traffic) and irritates certain basic assumptions about translation at the same time.

⁴ One of the central problems in conceptualizing this permeation lies in the difficulty of lifting translation out of its context as an identifiable and distinguishable object to which we can attribute a set of specific properties without dissolving the empirical interwovenness of translation and its context on a conceptual level.

operations or inaccessible to observers.⁵ What then is the reference object of translation studies?

The aim of this paper is to propose a theoretical framework which allows a conceptually justified description of the socio-cultural functions and effects of machine translation by making the corresponding adjustments on the level of our basic assumptions about translation. To this end, it is necessary to first state why machine translation has not yet been identified as a problem for translation theory. This will be done in a first step by relating the issues briefly touched upon under the two reasons given above to the self-understanding of contemporary translation studies as a discipline since the so-called 'cultural turn' (Lefevere and Bassnett 1990).6 It will be argued that the concept of culture, upon which the self-understanding of translation studies is built, is partly responsible for the lack of theoretical attention given to machine translation as it tends to function as an "anti-concept" (Koskinen 2004:150) to linguistic approaches in translation studies. In a second step, several anthropological categories developed by German philosopher and sociologist Arnold Gehlen will be introduced. These allow culture and technology to be viewed as inherently interrelated phenomena, and provide a framework for discussing the socio-cultural functions and effects of machine translation. In a last step, the distinction between machine and human translation and its theoretical and methodological consequences for translation research interested in the socio-cultural function and effects of translation will be addressed and questioned. Due to the interrelatedness of the problems at stake, this paper claims neither to analyse them in full detail nor solve them satisfactorily. Its aim is rather to point towards these problems and their possible solutions.

The cultural turn and the self-understanding of translation studies

Since the so-called cultural turn, translation studies has begun to understand itself as an emancipated, critical and self-reflexive discipline (see Hermans 1999 and Dizdar 2012), which has overcome the normativity and simplicity of the linguistic paradigm by redirecting

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⁵ Inaccessible in the sense that a perspective from 'outside' can never be identical with a perspective from 'inside', the perspective of the observer is never identical with the perspective of the observed (see Schütz (1932/1991:139-143) on this fundamental problem).

⁶ The term 'cultural turn' is understood here as a self-description of translation studies that semantically consolidates its emancipation from linguistics and retrospectively subsumes those (heterogeneous) theoretical developments which already originated in the 1970s primarily with Vermeer (1978) and Toury (1980), who systematically related the concept of translation to the concept of culture. When speaking of 'translation studies' or 'translation research' in the following, I am referring to research that understands translation as a sociocultural phenomenon.

its perspective to the complex socio-cultural conditions under which translation occurs, and in turn becomes socio-culturally relevant. Nevertheless, despite this general theoretical and methodological shift, translation research fails to address current empirical and socio-culturally highly relevant translational phenomena related to the spread and use of machine translation – not only in professional contexts but also and more importantly, in everyday life communicative situations. Instead of examining these changed empirical conditions and their possible impact on our understanding of translation, machine translation is usually treated as a technophile fantasy⁷ and even as an object of ridicule, whose "poor" performances reassure the translation scholar of the translator's ostensible superiority and indispensability (see, for instance, Greenall 2006).

All this, however, is not very surprising considering that the very idea of machine translation represents those epistemological and methodological premises that translation studies has rejected since its departure from a 'mere' linguistic approach and its integration into general constructivist and culturalist currents of thinking: a mechanistic and ahistorical understanding of translation and language; an unquestioned belief in equivalence and representation; an orientation towards the exact sciences, and above all, it does not allow for the concepts of *culture* and *agency*. From the perspective of an actor-oriented paradigm interested in power, ideology, and ethics, machine translation constitutes a mechanized and automated objectification of everything that has become suspicious about the linguistic past of translation studies. The following quote from Lefevere and Bassnett is a good example of the way the idea of machine translation clashes with the self-understanding of translation studies after the cultural turn:

History [...] is one of the things that happened to translation studies since the 1970s, and with history a sense of greater relativity and of the greater importance of concrete negotiations at certain times and in certain places, as opposed to abstract, general rules that would always be valid. In the post-war period, the agenda behind the analysis of translatability was that of the possible

⁷ Such fantasies of course exist. See Lehman-Wilzig (2000), who believes that synchronous automatic translation systems (SATS) will contribute to world-peace. This optimistic attitude shows what high hopes are vested in machine translation.

⁸ This idea can be illustrated by the following quote from the first edited volume on machine translation, which is understood as "the completely automatic substitution of a different language for the language of a given text, the ideas being kept unchanged" (Booth and Locke 1955:1). Also note that it was the same Warren Weaver as in the infamous sender-receiver model of communication (Shannon and Weaver 1949) who wrote the manifesto for machine translation research (Weaver 1949/1955). With a background in cryptography, it is no wonder then that translation was identified as a decoding-problem. For a translation theoretical critique of this model see Dizdar (2006:76-91).

development of machines that would make translations valid for all times and all places, and would do so at any time, in any place. Machines, and machines alone, were to be trusted to produce 'good' translations, always and everywhere. History has turned out to be the ghost in that machine, and the ghost has grown, the machine has crumbled. (1998: 1)

The picture drawn of machine translation in translation studies becomes clearer when we consider this critique as one that concerns the metaphysical and universalist premises behind the idea of machine translation and additionally take into account the way Prunč differentiates between human and machine translation: "Intentionality seems to make the essential difference between machine...and human translation Action, especially in the form of communicative action, is a deeply human category and left to humans as social beings" (2004:265, my translation). Against this epistemological and ontological background, it is understandable that machine translation does not appear on the radar of a research paradigm concerned with the intentional and "ethical agent of social change" (Tymoczko 2003:182) in specific historical and cultural settings.

This discursive situation, however, suggests that the concept of *culture*, which has become a central element in the inventory of translation studies, is problematic in two related ways: Firstly, it seems to fulfil a strategic rather than an explanatory function: As Koskinen notes, the concept of culture has permeated translation studies regardless of theoretical background and remains notoriously vague. It has become commonplace "to state that one does not translate across languages but across cultures" (2004:144). That is why the concept of culture seems rather to serve the emancipatory purpose of dissociating oneself from purely linguistic approaches, "than to dwell on painstaking definitions of the concept of culture ..." (2004: 150). Secondly, due to its emancipatory purpose of dissociating oneself from linguistic approaches and technical interpretations of translation - translation as an agentless "decodingprocess" – the concept of culture seems to be contaminated by a general attitude that Gehlen called the modern "uneasiness about technology" (1961/1986: 99, my translation), manifesting itself in sceptical representations of machine translation. The reasons for this "uneasiness" perhaps help explain the problematic status of machine translation in translation research; it is rooted in the detachability of "technical rationality" (1961/1986:100) and its mathematical language from all natural languages and in the detachability of technical systems from the cultural milieu from which they originated (1961/1986: 100-101). In other

words, modern technology and technical rationality represent the opposite of what translation is held to be, namely, indifference towards linguistic and cultural differences.⁹

The "uneasiness about technology" still seems to be at work even when a *critical* concept of culture is used to question the epistemological premises and political implications of a "naïve" understanding of translation, claiming to reveal them as semantic symptoms of concealed power relations (Venuti 2008). However justified such a critical concept of culture may be, because it pits itself against untenable essentialist assumptions and reminds us of the non-scientific conditions of any scientific endeavour, it contributes to the general tendency of allocating machine translation to an ideologically suspicious "instrumentalist" paradigm (Tymoczko 2010:4). However, such critical or sceptical attitudes are themselves ideologically charged, as they draw on a "demonizing" thought pattern, which can be understood as a typical reaction to the experience of powerlessness in the face of an increasingly changing and uncontrollable lifeworld. This normative handling of technological changes is nothing more than the attempt to come to terms with the feeling of uncertainty in a world which, although it was made by people, is experienced as having escaped our grip (Halfmann 1998:119). As orientating as such a normative attitude may be in everyday life, when taken as a vantage point for scientific reflection it leads to a misunderstanding of the relationship between technology and culture with theoretical and methodological consequences for translation research.¹⁰

Culture and Contingency

Machine translation is a topic which sparks ideologically charged discussions on epistemic (universalism vs. relativism; see Lefevere and Bassnett 1998:1) and ontological (human vs. machine; see Greenall 2006) problems which concern the self-understanding of translation studies and questions of object-constitution. For this reason, it seems useful to turn towards a perspective which can avoid becoming too entangled in these questions – not because they are unimportant, but because we want to arrive at a "cooled off" point of view, from where we can start to theorize machine translation in terms of its socio-cultural position. This point of

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⁹ See in this context Cronin (2003:19): "... although there are over 6,000 languages on the planet, there are only two systems of voltage, three railway gauges and one language for addressing air traffic control. Technology unites where culture separates."

¹⁰ Also see Cronin (2003:28) for a similar critique of dominant thought patterns in translation studies. As mentioned in footnote 2, he especially foregrounds the negative consequences of the traditional distinction between literary and non-literary translation for discussing the role of translation in human society as it leads to ignoring the fundamental *materiality* of translation and privileges idealist conceptualizations of language and culture.

view becomes possible, when we refrain from invoking a concept of culture against a linguistic paradigm and its concomitant technical interpretations of translation. Rather, it is important to take a step back and question the *function* of culture as such in order to understand the fundamental interrelatedness of culture and technology. To do so, it seems useful to draw on categories as they were developed by German philosopher and sociologist Arnold Gehlen (1904-1976) in the context of his *elementary anthropology* (Gehlen 1940/1986:14), which can be read as a systematic theory of culture (Rehberg 1990:276). I will now briefly outline its main points as they are relevant for the problem at hand.

Following Nietzsche, Gehlen determines humans as the "as yet undetermined animal". This expression carries a precise ambiguity in that humans as beings are neither identified nor "fixed" or "finished" (Gehlen 1940/1986:10). They are dependent on constructing an image of themselves and forming their open potentiality as they, in contrast to animals, do not have a species-specific environment in which they could orientate themselves with the help of a set of given instincts. The lack of a specific environment and instincts is the reason why Gehlen characterizes the constitution of humans as "world-open". This world-openness, which exposes them to an undeterminable and contingent plethora of experiential possibilities, is, however, an unbearable burden from which they have to unburden 11 themselves by constructing and maintaining artificial structures of order that reduce the world's complexity. In this view, culture represents nothing else than the attempt to give a world, otherwise experienced as contingent, a certain order which converts the biologically intrinsic worldopenness into the indubitableness of a "relative world-closedness" (Berger and Luckmann 1967:51) by developing systems of correlating pragmatic routines and habits of action (Gehlen 1956/1986:19). 12 In other words, culture unburdens humans from the experience of contingency and answers the question, how such a fragile and disorientated being as a human being can manage to continue to exist in the world.

¹¹ Together with 'world-openness' (*Weltoffenheit*), 'unburdening' (*Entlastung*) is one of the central categories of Gehlen's Philosophical Anthropology.

¹² A theory of culture which is based on the category of world-openness is also interesting for translation studies, as it is able to explain why different cultures can exist and why the experience of cultural difference can become a cultural problem. Moreover, it has the advantage of not presupposing an ethnic or regional concept of culture, thus being able to conceptually account for the fact that in our modern, functionally differentiated society (which is to be treated as *one* (world) society (Luhmann 1971/2006)) individuals belong to a variety of cultures (Renn 2007). Accordingly, the majority of our daily interactions can be considered 'intercultural' (Stichweh 2010b). However, if that is the case, translation research is obliged to consider the theoretical implications of such a concept of culture and specify what object is actually referred to when speaking of culture in translation theoretical terms.

Against this background, culture and technology appear as mutually dependent phenomena, which is why their relationship cannot be conceived antithetically. For the value of technology or tools lies not only – to paraphrase Hans Blumenberg (1981:38) – in the production of things and performances but in something that is seemingly non-producible: certainties of action without which no culture could exist (Gehlen 1956/1986:21). Every tool and every artefact becomes culturally relevant because it promises stability qua reliability; it can be used again and again and in the same way in different contexts, thereby decoupling the possibility of its usage from the contingencies of a specific situation (Grunwald 2008a:46).

'Background fulfilment' and 'Keeping-at-hand'

It is precisely this aspect of practical certainty that, in my view, is decisive for understanding the function and the promise of machine translation – in a world which, from a sociological perspective, is characterized by the omnipresence and therefore normality of cultural and linguistic unfamiliarity in everyday life (Stichweh 1992; 2010a). In this world, communication cannot readily assume that a common language secures what Gehlen calls the "basis of an unproblematic already-having-understood-each-other" situation (Gehlen 1956/1986:43, my translation). Rather, the experience of unfamiliarity becoming communicatively noticeable and problematic has become increasingly probable (Renn 2007). Communication, in order to continue, is therefore dependent on the certainty that an unproblematic basis can potentially be restored in the face of communicative problems that are ascribed to cultural and linguistic differences.¹⁴

In this respect, two further interrelated categories of Gehlen's approach become relevant: the categories of 'background fulfilment' (*Hintergrundserfüllung*) and 'keeping-at-hand' (*Beisichbehalten*). The former refers to a state in which certain human needs are permanently satisfied, ¹⁵ the latter to the invariance of this state in changing situations. Accordingly, it can

¹³ See Janich (2010) for an etymological explication of the intrinsic relationship between technology and culture: 'Culture', as derived from the Latin *colere*, refers to what we mean when speaking about technology or tools: the active reshaping of nature according to human needs. Also see Ropohl (1991), who considers the popular antithesis between technology and culture to be an expression of an "idealistic cultural chauvinism" (199, my translation). For a similar critique in translation studies see Cronin (2003:28). Anthropological fundamentals concerning the emergence of culture and the usage of tools can be found in Kapp (1877) and Gehlen (1956/1986;

¹⁴ To avoid misunderstandings: I do not assume that communication only becomes problematic when an unfamiliar language and culture are involved. It is much more necessary to say that all communication is fundamentally problematic and fallible, for the other's inner world is as inaccessible to us as ours is to the other (Ungeheuer 1987:307).

That way, the solution of problems can be taken for granted and new, more complex and improbable possibilities for experience and action are opened up. This state is central to human life as it is *unburdened* from

be argued that machine translation perpetuates the fulfilment of the need for "undisturbed" communication when confronted with linguistic and cultural differences, thus moving the pragmatic "need for translation" into the state of background fulfilment, whereby translation appears as a reliable and constantly-given option with which to deal with communication problems. Moreover, machine translation can be interpreted as the attempt to keeptranslation-at-hand. It is possible to keep translation, just like tools on a belt, with us and within reach. That way, we can be certain that translation is always 'at hand' in changing situations. 16 Put more abstractly, keeping-at-hand refers to the possibility of making oneself independent from the accidental arrival of the situation of fulfilment – in our case, the factual givenness of translations in communicative contexts – by decoupling this situation from the contingency of the given and perpetuating it (Gehlen 1956/1986:52). Translations, thus, are potentially available in any situation and no longer just accidentally encountered. It seems safe to assume that this potential availability of translations in all situations affects communicative behaviour, as attempts at communication are not as easily discouraged by linguistic differences as they would be otherwise. In a way, machine translation can be compared to electronic navigation devices. We proceed to unfamiliar places in the certainty that we can, in principle, rely on their orientation function, promising us familiarity even in the most unfamiliar of circumstances – without the necessity of any explicit theoretical knowledge concerning translatorial practice or the mechanics of machine translation systems. As Blumenberg describes it from a phenomenological perspective with reference to our lifeworld experience of modern technological artefacts, "the desired effect is, as it were, apparatively prepared for us, indeed it conceals itself from us in its conditionality and complicacy of realization, in order to present itself to us as the effortlessly available" (1981:35, my translation).

Up to this point, the concept of translation underlying my argument has been neither questioned nor explicated. Rather, it has simply been presupposed, because the main focus of interest was directed towards identifying and characterizing those thought patterns in

elementary problems and gives the feeling of certainty and stability in a complex and contingent world. For example, abundant food supply moves the need for nourishment into the state of background fulfilment. Moreover, knowing that the fulfilment of a certain need is perpetuated, keeps the need from becoming acute: hunger then is just hunger and does not necessarily refer to the possibility of starvation. In other words, the prospect of a problem being solvable makes the problem appear less problematic.

prospect of a problem being solvable makes the problem appear less problematic. ¹⁶ Considering the case of machine translation systems installed on mobile phones, this formulation can even be taken literally.

translation studies that are responsible for the lack of theoretical attention given to changes in its subject area which manifest most clearly in the increasing spread and use of machine translation. Admittedly, the introduction to Gehlen's anthropological perspective specified the concept of translation (and hence machine translation) in functional terms as a tool for solving communicative problems that arise in the face of linguistic and cultural differences. However, it is this very specification which may suggest that any attempt to understand translation within a framework based on Gehlen's conceptuality necessarily leads to an "instrumental" (see Venuti 2004: 6) or even "messianic" (see Cronin 2013: 65) theory of translation. That is, a theory which understands translation as an unproblematic transfer of meaning across linguistic and cultural boundaries – which is to say, as a phenomenon with no transformative or constructive properties of socio-cultural relevance. But it is Gehlen himself who offers a way out of this problem.

As was explained above, culture can be understood as an artificial structure of order which is functionally related to the problem of world-openness. In this sense, the existence of different cultures refers to the contingency of these artificial structures of order. In other words, cultures are contingent solutions to the problem of world-openness. However, cultures do not normally experience themselves as such. Rather, they experience their contingency as 'natural', as unquestioned and taken for granted. This taken-for-grantedness only becomes addressable as a taken-for-grantedness, once it is 'shattered', for instance in intercultural encounters. Familiar institutions, habits, routines and world-views are then no longer experienced as natural, as the only possibility, but as a contingent possibility among others (Gehlen 1961/1986: 80-81). If we now assume that translation is an essential condition for such 'shattering' intercultural encounters, we can get a rough idea of how translation participates in increasing the awareness of contingency. By enabling intercultural encounters, translation at the same time provides the necessary basis for identifying cultural differences as cultural differences, thus 'denaturalizing' what was perceived as natural before. At this point, we can only speculate about the consequences of keeping-translation-at-hand for intercultural dynamics and the perception of cultural differences, but it seems reasonable to keep in mind the denaturalizing effects of translation when trying to understand the consequences of installing translation into the background of our daily actions.

As pressing as these questions might appear for a proper understanding of the functional relationship between translation and (late) modern society, they have to be put aside here

because there is a fundamental problem which must first be addressed, as it concerns the hitherto unquestioned distinction between machine and human translation. In the following section, I will try to show that the concept of translation presupposed in this distinction leads to a methodological paradox which has to be resolved before a conceptually justified description of the relationship between translation and (late) modern society can be given. The argument will culminate in the introduction of the notion of 'accidental' translation in order to expose the methodological paradox in a sharper light.

Machine vs. human translation: a problematic distinction?

As discussed above, Prunč (2004: 265) draws on the concept of intentionality to differentiate the subject area of translation studies into phenomena that are closer to or further from the subject area's centre. By doing so, he gradually distinguishes between different levels of participation on the side of the translator in the production of translations, whereby each level is ascribed a corresponding degree of intentionality. Thus, the spectrum ranges from "full" intentionality, where no artefacts are used in the production of translations (i.e. interpreting), to almost "zero" intentionality in the case of machine translation. Consequently, according to Prunč, machine translation occupies a peripheral position in the subject area of translation studies, enjoying only the status of a helpful tool, such as dictionaries, for example.

It is now possible, *if* we accept Prunč's vantage point, to reconsider the relationship between these two intentionality poles from an anthropological perspective as a progressively externalization of translatorial functions into technological artefacts, each step being accompanied by the disclosure of new attentional resources as the translator's cognitive apparatus is unburdened from certain tasks. Cronin (2003), for example, takes a similar route and convincingly argues that translation technologies are not just a modern phenomenon but have occurred since the invention of writing, giving, as just one example, the consideration of the use of previous translations as 'tools' in the production of new translations as a kind of 'Translation Memory System'. Accordingly, the cultural history of the translator (and hence translation) necessarily ends with the advent of machine translation systems as a complete

conceptual analysis and critique with his position.

¹⁷ Prunč's position is quoted here to demonstrate the problems to which the distinction between machine and human translation can lead. Of course, Prunč's position cannot be taken as representative for the whole field of translation studies, but he is one of the few authors who explicitly addresses machine translation in the context of the problem of object-constitution in translation studies. Hence, it seems useful to begin the following

externalization of the translator, because the logic of the model does not allow for any further steps of development.

However, this model, conceptualized as it is along a continuum of intentionality, is problematic, insofar as the object relation of an actor-oriented research paradigm (which understands translation as an intentional act of a (professional) translator) is made dependent on technological – and this means *contingent* – developments. All we need to do to see the scope of this problem, is to imagine, if only for the sake of argument, the following scenario: supposing that at some point in the future, all translation was realized by technical artefacts, then the 'core' subject area of translation studies would be deserted and all actual translation occupy a peripheral position at best. The discrepancy between the field of vision of translation research and its empirical basis does not become noticeable as long as machine translation does not feature prominently in contexts of communication and action. But now that machine translation has permeated these contexts, this discrepancy has to be noted, questioned and corrected. The question of whether 'high-quality' machine translation will ever be possible is theoretically irrelevant: the *concept* of translation, as presupposed in this frame of reference, basically implies that, in our future scenario, translation studies has no proper research object anymore – although translations still circulate in a communicative space (and perhaps in an unprecedented quantity and speed).

This methodological problem is a consequence of a theoretical blind spot that arises from the implications of the unquestioned distinction between machine and human translation. This distinction is based on the assumption that translation is a phenomenon that can, in principal, be realized by both humans and machines. This assumption, in turn, only makes sense, if translation is conceptually identified with those operations that are traditionally known as (linguistic) decoding processes – representing precisely that kind of mechanistic understanding of translation that has been rejected since the cultural turn and, generally speaking, substituted with an emphatic notion of an intentional actor, foregrounding his or her subjectivity, active involvement and cultural embeddedness. However, this substitution actually only continues the problem it wanted to solve, as, in order to compare and propose a qualitative difference between machine and human translation, it too, just like machine translation research, has to draw on the premise that translation is ultimately an *inner* operation. Consequently, machine translation must be exclusively considered an object of machine translation research, as its operations can only be described in those terms. In other

words, as long as translation studies attempts to establish its core concept in explicit opposition to what is deemed to be a mechanistic understanding of translation, it can only make use of the implicit premise that translation is essentially a mental process. It is only by referring to such a common concept that the opposition between *machine* and *human* translation, between mechanical decoding and intentional interpretation, make any sense.

Translation studies, therefore, is not only unable to speak about certain forms of translation that we increasingly encounter in our everyday lives, but it is also confronted with a fundamental methodological dilemma: either its object, if realized by a machine, can only be described in technical or linguistic terms or, if realized by a human, it resides in the realm of the unobservable and inaccessible. ¹⁸ From such a vantage point, any statement about translation necessarily refers to processes believed to occur in the inner world of the translator, which either can or cannot be substituted by a machine, thus addressing everything *but* the communicative dimension of translation – that is, the dimension which makes translation a socio-cultural phenomenon and thus irreducible to mental (or mechanical) processes and intentional states.

'Accidental' translation

The consequences of the methodological dilemma resulting from the distinction between machine and human translation for the organisation of the relation between translation studies and its object can be illustrated by an extreme example which I want to call 'accidental' translation. Suppose that someone unintentionally hits the 'translate-button' on a machine translation system because of a nervous twitch. Suppose further that the 'accidental' translation goes unnoticed by the 'accidental' translator but not by others who then read the translation without knowing that it came into being unintentionally and maybe even use it as an element in further communications, which again are translated by accident, and so on: a whole chain of accidental translations of accidental translations. Leaving the objection aside that such cases are highly improbable, we have to ask ourselves: what conceptual framework do we have to grasp such phenomena in which the condition of intentionality is not met – at least not in the sense required by the continuum of intentionality discussed above – and yet produces translations that trigger communication? Such occurrences suggest that a translator,

¹⁸ And if it were accessible, translation would not be necessary, as the inaccessibility of other minds constitutes the fundamental condition for the possibility and necessity of communication (Ungeheuer 1987: 307) and by extension; translation.

professional or unprofessional, is *not* – again, at least not in the sense of the intentionality continuum – a necessary condition for the empirical realization of translation. Therefore, the relation between the basic concepts of translator and the concept of translation has to be at least reconsidered, if not newly reconfigured, by asking the questions: under which conditions is it justified to use the concept of the translator to describe phenomena that can be considered translational? What specific features does this concept (of the translator) need to have? And in what specific sense can we say, if at all, that a translator is 'involved' in translation, especially if translation is understood as a communicative and not just a cognitive phenomenon?

One way of coming to terms with the hypothetical possibility of 'accidental translation' is to draw on a concept of communication based on the premise that 'understanding' is the starting, rather than end-point and a necessary condition for communication processes.¹⁹ In this view, communication can be triggered or initiated by anything that is ascribed to intentionality, that is, by anything that, from the perspective of a hearer/reader/observer and for whatever reasons, suggests communicative intentions and meaning. This is so because humans let themselves be "fascinated" by the impression of intentionality, leading them to "psychomorphic" attributions of an inner world (Fuchs 1991:13). The use of language especially suggests the assumption of intentionality, which is why communication can be triggered by computers producing perceptible 'output' that reminds us of language use (Fuchs 1991:13-17). In this respect, the degree of technological perfection or imperfection in computers is theoretically irrelevant. What is relevant is that communication is initiated and maintained without necessarily presupposing another conscious being as the direct source of an utterance, and the same holds true, by extension, for translation – at least since the advent of machine translation. Whether and to what extent the 'defects' of machine-generated translations become a communicative problem is an empirical question and cannot be decided by theoreticians, ²⁰ for as long as no one "protests", we have no reason to assume that translation has failed (Vermeer 1978:101).

¹⁹ For a systematic elaboration of the translation theoretical consequences of such an approach, especially for the reconceptualization of 'translation process', see Heller (2013).

²⁰ That is why it is questionable whether the distinction between 'high-quality' and 'indicative' translation – the latter being a 'low-quality' translation "used only to get an indication of the content of the original text" (Melby 1997:29) – is useful within the theoretical and methodological framework adopted here. Rather, it seems more useful to treat 'indicative' translation as a form of translation proper and ask: What are – empirically speaking – the *minimal* conditions for (successful) translation and what are – theoretically speaking – the *minimal* conceptual conditions for understanding and analyzing translation?

If we accept these communication theoretical premises, the concept of machine translation has to be reformulated, in order to be of use to translation theoretical endeavours. This is because all the communication processes initiated by machine generated translations cannot be described solely in terms of the technical properties of the technologies involved. The term 'machine translation' can then only mean: communication processes that originate from intentionally or unintentionally machine generated *translations*. Hence, it is precisely the hypothetical case of accidental translation made possible by machine translation systems that makes a strong case in point for understanding translation as an open-ended and emergent phenomenon (Heller 2008:16).

Conclusion

If translation studies wants to account for the complex interrelation between translation and (late) modern society, it cannot limit the scope of translation related statements to an empirical basis (implicitly or explicitly) defined by concepts like 'professional translator', 'post-editor' and 'translation industry'. It is especially the increasing presence of machine translation in our everyday lives which points to the full extent to which translation permeates and conditions the structures of our socio-cultural lifeworld. In this sense, machine translation constitutes an ideal vantage point for addressing this permeation. However, before it can be thoroughly conceptualised, we need to reassure ourselves of the conceptual ground on which we are standing in translation studies when reflecting upon translation. That is why this paper was mainly concerned with the potential of machine translation to "irritate" – not falsify (Lindemann 2008) – certain basic assumptions that constitute the research object of translation studies. The explication of these assumptions *as* assumptions makes them accessible for critical revision and possible modification corresponding to an altered empirical situation.

With this goal in mind, the first part of the paper was dedicated to relating machine translation to the disciplinary and methodological self-understanding of translation since the cultural turn. The main argument was that the central notion of culture tends to function as a means of dissociating oneself from linguistic approaches rather than as an explanatory tool, which in turn leads to allocating machine translation to an ideologically suspicious "instrumental" paradigm to be overcome. For this reason, a sociological perspective based upon Gehlen's elementary anthropology was introduced in order to establish the necessary conceptual framework which allows thinking about machine translation in terms of its socio-cultural

function (the certainty of translations being available in every situation) and effects (increased awareness of contingency) in relation to the communicative needs of a modern, culturally and linguistically diversified society. The second part of the paper was concerned with the methodological problems arising from the distinction between machine and human translation. It has been argued that the concept of translation as presupposed by this distinction necessarily leads to giving up the object-relation of translation research interested in the socio-cultural functions and effects of translation because this concept identifies translation with the processes believed to occur in the 'black box' of machines or humans. The solution to this problem offered here draws on a concept of communication which assumes 'understanding' to be the starting point of any communication process.

Of course, the argument presented in this paper cannot claim to be a comprehensive analysis of the implications machine translation has for translation research. But it claims to posit reasons for attributing theoretical relevance to empirical changes in the subject area of translation studies. In this sense, the need for a 'reflexive turn' (Dizdar 2012) towards the ground on which we are already standing when reflecting upon translation does not only arise from the general doubt concerning the existence of an archimedical point of reflection. It also arises from the conceptual difficulties we have when attempting to describe and account for certain forms of translation and their complex relation to modern society. In other words, if we want to cope with this complex relation within translation studies from a theoretical point of view, we first need to reassure ourselves whether, and to what degree, the conceptual means at our disposal are able to withstand empirical stress.

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