Infrastructures and Translation as Relational Entities

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ARTICLE INFO	ABSTRACT
	This paper, interdisciplinary in nature, revolves around the notion of infrastructure and that of translation. These two concepts are more similar than it might appear to the layman. Indeed, they show complementary traits and striking similarities, the most noteworthy of which is their being relational entities. Because of this basic yet essential likeness, the features characterizing infrastructures can be applied to translation, and vice versa. In particular, sociologist Susan Leigh Star's detailed list of nine features typical of infrastructures works well also in relation to translation, while the four stages of George Steiner's hermeneutic motion perfectly suit the conception, design, and implementation stages of infrastructures. Moreover, within the framework of reference provided by Régis Debray's definition of transmission as the mechanism required for something to spread – not only across space but through time as well – these notions come together, both playing key roles in the creation and perpetuation of culture, of society, and of their organizational structures.

> *What can be studied*
> *is always a relationship*
> *or an infinite regress*
> *of relationships.*
> *Never a "thing"*
> *(Bateson)*

INTRODUCTION

Gregory Bateson's statement quoted in the epigraph (1978, p. 249) brilliantly summarizes in a few words what for centuries has been the object of study for theologians and thinkers at least since the Middle Ages, when the "metaphysics of relation" was widely discussed by philosophers such as Augustine of Hippo, Thomas Aquinas, or John Duns Scoto. Bateson's statement is certainly not new, but it very well represents the epitome of a paramount issue that even nowadays has not lost any of its cogency.
Infrastructures too, just as is suggested by Bateson, are made of relations. Defining them as "the systems that enable circulation of goods, knowledge, meaning, people, and power" (Lockrem and Lugo), certainly provides a truthful description of what they are and what they do. Yet, at a deeper level, there is more to them, and a true understanding of what infrastructures are necessarily implies a view of them as relational entities. The same applies to translation. Indeed, translation is *the* relational entity *par excellence*: translation bridges the gap of otherness by connecting not only texts, but cultures and societies too.

In what follows, the meaning of infrastructure and that of translation will be analysed, taking also into consideration the common traits in their etymology. Similarities and differences will be compared in order to show how it is possible to apply infrastructure's features to translation and *vice versa*. Finally, it will be shown how Regis Debray's definition of the notion of *transmission* sets infrastructure and translation within the same framework, where both become part of a greater dynamic that ensures the creation, perpetuation and survival of society: its culture, its values, its symbols, its mechanisms, and – last but not least – its organizational structures.

TWO MULTI-FACETED WORDS

Infrastructure is an umbrella term covering wide areas of meanings: from a rather wide perspective, it can be considered a scaffolding, at once supporting society and being determined by it. At its most essential, the Oxford Dictionary of English (2005) defines infrastructure as "the basic physical and organizational structures and facilities (for example, buildings, roads, power supplies) needed for the operation of a society or enterprise". Etymologically, it derives from the Latin prefix *infra-*, "below", and the late Middle English word *structure*, denoting the process of building. In fact, the Old French or Latin *structura* stems from the verb *struere*, "to build"(Oxford Dictionary). Therefore it refers to something that is below a building, that remains unnoticed, possibly hidden, lying underneath, underlying.

grasp the wide range of meanings of this key word, is that between hard infrastructures and soft infrastructures. The former refers to physical systems (networks or assets), while the latter refers to the organizational structures (institutions) needed to manage such systems. Infrastructures are so deeply intertwined with life in all its forms that, in a recent paper by two Bristol University Civil Engineering scholars it is suggested that infrastructures can actually be considered as extensions of natural systems (Beigi and Taylor, 2015). The broad extension of the word's meanings is such that it runs the risk of losing its specificity, so much so that, in discussing infrastructure investments, the CEO of a London-based investment consulting firm, expresses concern that the word "has just become a buzzword, a convenient catch-all" (qtd. in Fraser).
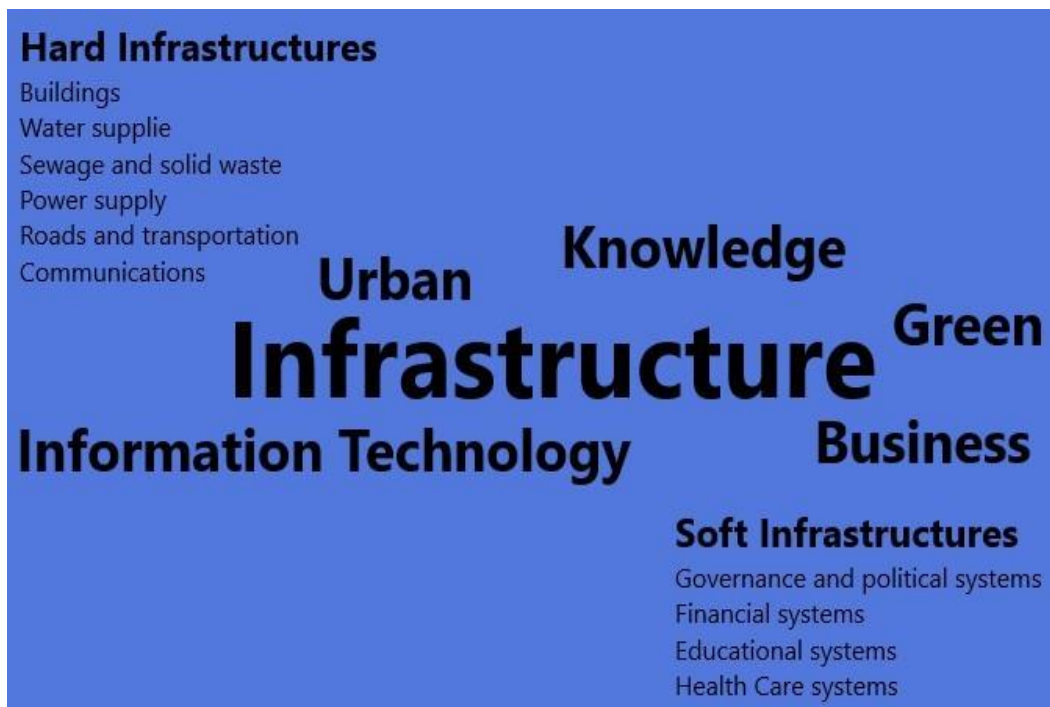

Figure 1: Types of infrastructure

The term is used in the most diverse fields of human (and non-human) affairs. It belongs in a number of realms, among which can be mentioned: civil engineering (urban infrastructures, green infrastructures), IT engineering, economics, and, in a more metaphorical sense, knowledge infrastructure. Broadly speaking, a crucial differentiation, useful to

Translation too applies to a wide range of meanings. Like infrastructure, the word comes from Latin, but whereas the suffix *infra-* means "below", *trans-* means "across". *Latum* instead is the supine of the verb *fero*, to carry. To translate means "to carry across". Not that coincidentally, it is etymologically identical to the word metaphor, only the latter comes

from Ancient Greek instead of Latin: μετά "across", and φέρειν, "to carry". Translation can be a metaphor for any transportation, transformation or transfiguration. Also, it can be used as an explanatory synonym for the word "interpretation" itself. It follows quite naturally that the notion of translation can easily be applied to a wide array of dynamics. It very much depends on whether the term is indeed used metaphorically and the extent to which the metaphor applies.

Notwithstanding the extensive range of meaningful possibilities, neither word loses its specificity, and this so by virtue of their core meanings, ascribable to their etymological origin. However, figures 1 and 2 exemplify the complexity of the word "infrastructure" and "translation" respectively, the latter with specific reference to the linguist Roman Jakobson's tripartite definition ([1959] 2000, pp. 113-118).

comprises non-verbal signs (for example, from music into drama or from a novel into a movie). To be noticed, in Jakobson's tripartite classification, the use of the word "interpretation" as defining translation in all its forms. Indeed, translation is interpretation.

Setting translation (mainly in the sense of *translation proper*, following Jakobson's terminology) and infrastructure side by side is not something obvious. There are certainly noteworthy differences, and the disciplines studying them are traditionally independent one from the other. Besides, from a certain perspective, the conceptual distance between the two is narrower than it might initially appear. For example, it can be held that, whereas infrastructures work in networks (roads, cables, water supply, and so on), translation is linear (source text to target text).
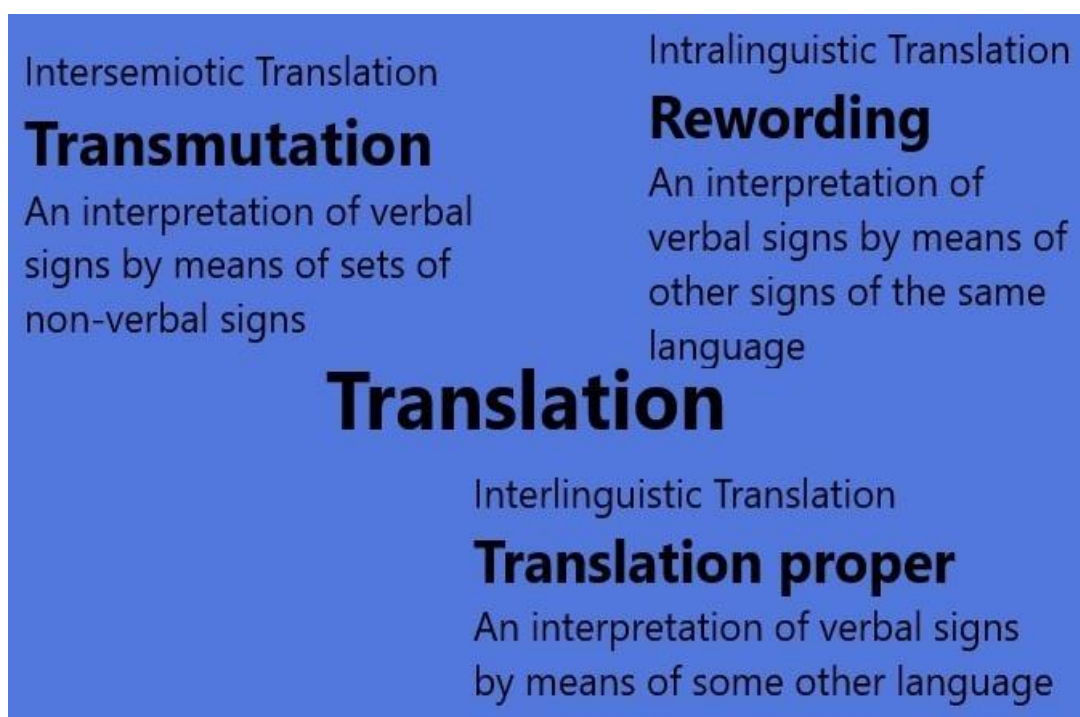

Figure 2: Types of translation

Jakobson's classic view on translation considers it as translation proper or interlingual translation, taking place between two languages (source language and target language), rewording or intralingual translation, occurring within the same language (that is, expressing the same thing with a different set of linguistic symbols), and transmutation or intersemiotic translation, where the translation

This might be evidence of a substantial difference, but it is more complicated than that.

As a matter of fact, if the claim that infrastructures work in networks is self evident, translation is virtually always caught in networks, that is the nets of intertextuality, whereby any text, any sentence, any word can only gather its full meaning by its linguistic co-text (its surrounding linguistic material) as well as

by its socio-cultural and situational context. This is exemplified by online texts, where hyperlinks bring to the surface the inner intertextual nature of words and their related concepts. Thus, if the source-text-to-target-text dynamic can indeed be considered linear, the objects of translation (that is, texts), are always non-linear and can only work as hypertexts, namely in (intertextual) networks, precisely as infrastructures do.

That translation is not a mere one-way procedure is also the conclusion reached by Itamar Even-Zohar's Polysystem Theory[1], which considers literary and cultural conventions as key elements in determining the outcome of a translation, thus denying the over-simplified view of translation as a unidirectional (possibly mechanical) equivalence process:

> Translation disciples [...] tended to look at one-to-one relationships and functional notions of equivalence; they believed in the subjective ability of the translator to derive an equivalent text that in turn influenced the literary and cultural conventions in a particular society. Polysystem theorists presume the opposite: that the social norms and literary conventions in the receiving culture ("target" system) govern the aesthetic presuppositions of the translator and thus influence ensuing translation decisions. (Gentzler, 2001, p. 108)

Polysystem theory refers to the entire network of correlated systems within society in an attempt to explain the function of all kinds of writing – translated or not. These concepts are borrowed from Russian formalist Jurij Tynjanov, who posited the existence of systems where elements do not exist in isolation but are always interrelated with other elements of other systems (1978, pp. 66-78). The notion of an interrelatedness of systems applies to the whole literary and extra-literary world, and also includes translated texts, which take on specific roles and distinguishing features within a given target system: such roles and distinguishing features tend to

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[1] Itamar Even-Zohar first introduced the term Polysystem in a series of papers written between 1970 and 1977. These essays were collected and published as *Papers in Historical Poetics*, 1978. His pioneering work "The Position of Translated Literature within the Literary Polysystem" was also published that same year in Holmes et. al.

differ from those at play in their system of origin (Gentzler, 2001, p. 112).

The notion of "system", used here with reference to translation, should not be overlooked, since it is exceptionally similar to that of "structure" (as in *infra*-structure), to the point that they can be considered as interchangeable synonyms. More precisely, "system" is a synecdoche for "structure", which is defined as "a complex system considered from the point of view of the whole rather than of any single part" (Dictionary.com). In other words, "system" is the *pars pro toto* and "structure" the *totum pro pars*: translation and infrastructure are not that far away after all and their similarities reach even further – as will be shown in the next paragraph.

CHARACTERISTICS OF INFRASTRUCTURES AS APPLIED TO TRANSLATION

In her paper "The Ethnography of Infrastructure", sociologist Susan Leigh Star sets out to question the impact infrastructures – more specifically IT infrastructures – have on ethnographic studies. Her assumption is that "the ecology of the distributed high-tech workplace, home, or school is profoundly impacted by the relatively unstudied infrastructure that permeates all its functions. Study a city and neglect its sewers and power supplies [...], and you miss essential aspects of distributional justice and planning power" (1996, p. 379). Being a sociologist, Star aims at understanding how infrastructures affect (and are affected by) human organizations, because – as she forcefully points out – "whether in science or in the arts, we see and name things differently under different infrastructural regimes" (1996, p. 380), which are therefore an important, if neglected, element in the way human organizations work at every level. She shares the view that infrastructure is a fundamentally relational concept: "analytically, infrastructure appears only as a relational property, not as a thing stripped of use" (1996, p. 113).

Star continues her outline of infrastructure by providing a list of nine features. According to her, what characterize infrastructure are, first and foremost, embeddedness and transparency. Embeddedness, because "infrastructure is sunk into and inside of other structures, social arrangements, and technologies"; transparency, because infrastructure is "transparent to use, in the sense that it does not have to be reinvented each time or assembled for each task, but invisible supports those tasks". The spatial and temporal reach or scope of

infrastructures is also relevant to the extent that it "has reach beyond a single event or one-site practice". Furthermore, infrastructure is "learned as part of membership", meaning that artefacts and organizational arrangements constituting infrastructures are well-known to the members in a community of practice, whereas outsiders would need to learn about it. Similarly, infrastructures are linked with conventions of practice, in the sense that they both shape and are shaped by the conventions of a community of practice.

Indeed, infrastructures embody standards by adapting to conventions and pre-existing networks and tools. Since they do not grow *de novo*, they wrestle with the inertia of the installed base on which they are built, thus inheriting strengths and limitations from that base. Another characteristic of infrastructures is that they only become visible upon breakdown: that is, when its normal invisibility or transparency fails, the underlying infrastructure emerges to the surface and becomes noticeable. Finally, an infrastructure is "fixed in modular increments, not all at once or globally", which means that, "because it is big, layered and complex, and because it means different things locally, it is never changed from above. Changes take time and negotiation, and adjustment with other aspects of the systems are involved. Nobody is really in charge of infrastructure" (1996, pp. 381-2).

As a whole, these features support Star's idea that infrastructures are relational concepts, precisely like translations. This being relational entities is the most fundamental common trait shared by translation and infrastructure and the one making them so similar, one shedding light upon the other and *vice versa*.

If, in the previous paragraph, it has been emphasized how both concepts rely on systems and networks, this is so only because and to the extent that they are and need to be put in relation with their systems of reference. What is striking is that, notwithstanding Bateson's words which claim that what can be studied is always a relationship and never a thing, when it comes to translation, the relation (that is the object of study) *is* the thing. Translations are nothing but the embodiment of the relations existing between source text and target text and, at higher levels, between source language and target language, between source culture and target culture (and the other way round). As Gideon Toury pointed out in *In Search of a Theory of Translation*, translation implies a *tertium comparationis* between source text and target text. Such *tertium comparationis* incorporates nothing but a relational entity.

Keeping such perspective in mind and considering the striking similarity of the two notions at stake, it appears justifiable – if not natural – to apply Star's features to translation. Indeed, what follows is a reading of translation through the eyepiece of Star's list:

- Embeddedness. Translation does not exist in a vacuum but only takes place within other systems, which vary greatly. For specialized translation, it may be the financial system, the medical system, the scientific system, or the literary system in the case of literary translation.
- Transparency. Translation is transparent to use, in the sense that translation's consumers are not aware of it. In an unproblematic and well executed translation, readers will only realize that the text is indeed a translation by reading its translator's name, or the original title of the text.
- Reach or Scope. Translation reaches far beyond its immediate production and consumption and can have far-reaching (either disastrous or excellent) consequences. Take for example the case of the mistranslation of a legal document, of the handling instructions for some hazardous material or the user's manual to build some dangerous equipment. Even in less extreme cases, the scope of a translation may have a certain impact, affecting the fortune of a foreign author in the target text cultural landscape, depending on the quality of the translation.
- Learned as part of membership. Translation is one of those things that the layman considers to be effortless, almost automatic, certainly unproblematic for bilingual people. The truth is that that is not the case at all and, in order to become a good translator, one needs specialized training providing proper skills and expertise.
- Links with convention of practice. The is no "right" way or "wrong" way to translate. Translations are strictly dependent on the conventions of the time and culture (or sub-culture) in which they are made. Translation can be, for example: domesticating, foreignizing[2], with an ethical bias or a political agenda. The outcome will be strongly influenced – if not determined by – a certain convention of practice. It all

[2] For the difference between domesticating and foreignizing translation, see Venuti, 2008.

depends on the who, what, why, where, and when of the translation.

- Embodiment of standards. This is becoming increasingly common due to the aid of software programs supporting the practice of translation which, inevitably, embody the software's standards (for example, a software comprising a database of fixed expressions will influence translators to translate those expressions as found in the software's database).

- Built on an installed base. Just like in any other field, translation norms[3] tend to vary: by installed base is to be meant the tradition and customs prevalent at the time and whereabouts of the translation production and delivery.

- Becomes visible upon breakdown. As a rule of thumb, a good translation goes unnoticed. It is only when there is a disruption of the textual flow that the reader gains an insight into the underlying translational work.

- Is fixed in modular increments, not all at once or globally. Translators tend to follow norms but the notion of translation itself can and does change gradually, with the changing cultural infrastructures of the place where it is produced and/or commissioned. Such changes, though, tend to be gradual or modular rather than global and simultaneous.

Star's features really work well when applied to translation. To these should be added another quality characterizing good infrastructure: resilience[4]. Translation lends the original text a quality of resilience, which allows it not to die, not to be forgotten. If ancient texts, as well as foreign texts, continue to exist in time and across space, this is due to the powerful practice of translation, which keeps them alive – therefore resilient to oblivion.

AN ALL-ENCOMPASSING NOTION OF TRANSLATION: STEINER'S HERMENEUTIC MOTION AS APPLIED TO INFRASTRUCTURE

There is one more view which can be taken into account to shed light on the close – if complex –

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[3] See Gideon Toury's classic work on translation norms, *In Search of a Theory of Translation*, 1980.

[4] Beigi and Taylor's article on infrastructures as natural systems provides an insightful view on the importance of resilience.

relationship existing between translation and infrastructure. George Steiner's description of the dynamics at play in translation complements Jakobson's mainly linguistic tripartite view and extends its scope. In order to see the poignancy of George Steiner's definition of translation is here necessary to briefly re-discuss its features, thus providing the theoretical basis necessary to subsequently apply it to infrastructure.

Steiner's articulated definition is possibly the one with further-reaching implications. He identifies translation with the hermeneutic motion, that is with "the act of elicitation and appropriative transfer of meaning"([1975] 1998, p. 312). More in particular, translation is taken to be a demonstrative statement of understanding: I state my understanding of something by rephrasing it, whether such rephrasing be in the same language, in another language, or in another set of symbols (Jakobson's intralingual, interlingual and intersemiotic translation respectively).

The hermeneutic motion is fourfold in that it has four stages: initiative trust, aggression, incorporation, and, finally, restitution. The *conditio sine qua non* of every act of understanding is trust: any individual intent on interpreting or understanding something believes that there is indeed something out there to be interpreted or understood. In Steiner's words:

> initiative trust [is] an investment of belief, underwritten by previous experience but epistemologically exposed and psychologically hazardous, in the meaningfulness, in the 'seriousness' of the facing or, strictly speaking, adverse text. We venture a leap: we grant *ab initio* that there is 'something there' to be understood, that the transfer will not be void. (Steiner, [1975] 1998, p. 312)

Words always mean something, indeed they can mean anything because there is always a Derridean *écart* between words and meanings, signifier and signified, and such *différance* allows or rather demands for translation (Derrida, 1985, pp. 165-207): this is why Steiner's initiative trust is usually not disappointing. He also mentions a Kabbalistic speculation about a time when words "will shake off the burden of having to mean and will be only themselves, blank and replete as stone" (Steiner, [1975] 1998, p. 313). This scenario, doubtfully desirable, is for now far from the reality of human

communication, finding some sort of actualization mostly (and exclusively) in IT computer protocols.

The second stage is aggression, an incursive and extractive move in which a 'code' is literally broken. Although Steiner makes reference to the philosophy of Hegel and Heidegger, it is in Saint Jerome's words that this aggression stage is better exemplified: in translation, meaning is aggressively "brought home captive by the translator" (Steiner, [1975] 1998, p. 314).

Thirdly, there is incorporation, or embodiment. Of meaning, of course. Any object of interpretation becomes naturalized into the target text language and culture, where "the native semantic field is already extant and crowded" ([1975] 1998, p. 314). In other words, the meaning becomes domesticated, assuming different shadings while losing others: "whatever the degree of 'naturalization,' the act of importation can potentially dislocate or relocate the whole of the native structure" ([1975] 1998, p. 315). After all, according to Even-Zohar, "culture is the highest organized human structure" (Gentzler, 2001, p. 120). As such, once a translation is incorporated in the target culture, it can become a threat. In Steiner's words: "acts of translation add to our means; we come to incarnate alternative energies and resources of feeling. But we may be mastered and made lame by what we have imported" ([1975] 1998, p. 315) – which is to say that the hermeneutic motion is dangerously incomplete unless the fourth stage takes place: restitution.

Restitution – the fourth stage in the hermeneutic motion – can be seen as a piston-stroke completing the cycle. As a matter of fact, at the beginning of the hermeneutic motion, with the movement of trust, one is put off-balance because of the necessary act of trust towards the source text:

> We "lean towards" the confronting text (every translator has experienced this palpable ending towards and launching at his target). We encircle and invade cognitively. We come home laden, thus again off-balance, having caused disequilibrium throughout the system by taking away from "the other" and by adding, though possibly with ambiguous consequence, to our own. The system is now off-tilt. The hermeneutic act must compensate. If it is to be authentic, it must mediate into exchange and restored parity. (Steiner, [1975] 1998, p. 316)

Restitution is therefore an act of reciprocity to be enacted in order to restore balance.

The answer to the question as to whether Steiner's hermeneutic motion is applicable to infrastructure is certainly positive. And the reasons appear rather straightforward: the moment the idea of designing an infrastructure is conceived, there must be trust, initiative trust, that that idea will make a contribution to the development of some organized system. No engineer would ever set out to even think about a project unless there be reason to believe that the implementation of such project will turn out to be worthwhile.

Then, there is the second motion: fieldwork and all preparatory work correspond to the aggressive stage, where the greater system in which the infrastructure will be implemented is carefully studied in all details, modified where necessary, and other, pre-existing infrastructures are brought to the surface in order to check and test their compatibility with the new project. The third stage of incorporation requires the infrastructure design to embody and adapt to the system that will comprise the infrastructure itself. Finally, restitution is nothing but the outcome of the hermeneutic-infrastructural motion, where roads, power supplies, IT networks, sewage systems or whatever was the object of the implementation becomes one with the pre-existing organizational structures and a new – hopefully improved – version of the system is available to the community of users.

INFRASTRUCTURES AND TRANSLATION AS MEANS OF TRANSMISSION

In the previous part of this paper, the intertwining of infrastructures and translation has been brought to the surface. There is one further, deep-rooted characteristic that brings them closely together, and that is the notion of *transmission* (Debray, 1997).

Régis Debray's insightful study on transmission stems from his interest in the means by which humanity perpetuates its beliefs, value systems, and doctrines from age to age. According to him, there must be some hidden mechanisms determining the success or failure of a certain idea whereby it becomes a "force matérielle" as opposed to others that do not, and just fall into oblivion. Certain people, certain words, certain expressions at a certain time in history become ground-breaking: a philosopher such as Karl Marx, for example, became extremely influential throughout the twentieth century, much more than, say, Pierre Proudhon, August Comte or others whose names did not even make it into history books. Debray is concerned with the ways of

transmission, which are the mechanisms required for an idea to spread – not only across space but through time as well. He attempts at inferring general laws about the power of thoughts and the transforming dynamism of ideas – namely, the transmission of culture.

Although both infrastructures and translation may concern communication, it is not so much communication that is paramount in Debray's analysis. The semantics of transmission is, as opposed to that of communication – the latter being rather associated with words, language and the immaterial. The former, instead, is associated with the material, the political, and the immanent. Such differentiation may seem elusive, but Debray also provides a framework of reference clarifying his subtle distinctions.

First of all, the range of significance of the notion of transmission is triple: material, diachronic, and political. Material transmission refers to both goods and ideas. It is a force, not only a form: in mechanics, transmission refers to the power and movement of an engine. There can be transmission of movement, of people, of passwords, of fixed expressions, of vehicles, or of rituals: it is a mixture of the most diverse things, where ideas and ideologies are transmitted by means of material things. The evangelic message, for example, is transmitted by celebrations, songs, churches, sanctuaries, etc.: those are the things that make it real, more than the sacred texts themselves. Material transmission is, however, kaleidoscopic: there is no movement of ideas without human beings moving across places of significance: merchants, for example, travel and, in so doing, they carry with them not only their goods but also their traditions, their culture, their values. For such movement to take place, infrastructures are necessary. Transmission thus involves both a spiritual and a material aspect.

Whereas communication is essentially a transportation across space, transmission takes place across time as well. It connects the dead and the living, so to speak, often without the physical existence of the emitter. Whereas communication excels at abridging distances (via telephone or the Internet), transmission excels at extending, at prolonging. Religion, art and ideology share the same intent of eluding the ephemeral and extending their existence, their power, their influence: they are not only built to last, but to last long: "Nous transmettons pour que ce que nous vivons, croyons et pensons ne meure pas avec nous" (Debray, 1997, p. 18). Transmission does take place in space:

geographically, it takes the shape of a trajectory. Its ultimate goal, though, is to last in time, that is to make history.

Usually, human beings communicate, they do not transmit. "Tout est message, si l'on veut – des stimuli naturels aux stimuli sociaux ou des signaux aux signes, mais tout ne fait pas héritage" (1997, p. 20). There is a superimposition of the social universe onto the physical one, and a fight for survival in a cultural system of rival forces that tend to eliminate each other by phagocytosis. In the social sphere, the communicative act is natural. Transmission belongs in the political sphere, where communities are organized entities. Transmission is indeed the antidote to human disorder and aggressiveness because it safeguards the identity of the group: it is embodied by and works by means of organizational structures (family, education, religion, medicine, etc.). Infrastructures that guarantee the transmission of certain values and know-hows become strictly associated with the identity of that group.

The ethical stance of infrastructures is a field of research that is gaining more and more momentum as human peoples are faced with the challenges posed by social, economic, and environmental sustainability[5]. Langdon Winner's notorious 1988 paper "Do Artefacts Have Politics?" vividly addresses the issue, coming to the conclusion that artefacts, as well as infrastructures, do have politics. The reference he makes to, among others, the case of twentieth century city planner Robert Moses is quite telling: the overpasses Moses designed for Long Island (New York), in the twentieth century, were so low that only automobile-owning upper classes could freely move around the area: lower classes and racial minorities instead had no access whatsoever to posh Long Island towns, because public transport buses were too high for the overpasses (Winner, 1988, pp. 19-39). In this case, infrastructures' racial bias is strikingly powerful.

Debray makes very clear that there is a neat distinction between the act of communicating and that of transmitting (p. 15). Translation belongs in the domain of transmission. And infrastructures (for example, power or information network infrastructures) allow communication to take place, but they themselves belong in the realm of transmission in as much as they embody heritage. Transmission *is* culture and belongs to the political sphere to the extent that it transforms what is undifferentiated into an organized whole. Power

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[5] For an insightful discussion on these issues, see Epting, 2016.

infrastructures, for example, determine where and how the energy present in nature is delivered. Similarly, information network infrastructures determine where and how long-distance communication can take place. The political implications of this are self-evident. Transmission guarantees the survival of a culture, its symbols, its values, its ideas. Contrary to communication, which is ephemeral and takes place by means of infrastructures, transmission is *embodied* by infrastructures. It *is* the infrastructure. The difference is similar to that between hardware and software. There is no latter without the former, and the former determines the systemic characteristics of the latter.

Infrastructures are thus part and parcel of the transmission process, sharing its values, ideologies and biases too. But transmission of what, exactly? The word itself applies to many things: AIDS virus, an inheritance, a title or privilege, facial features, goods and services, and more. Debray is interested in reproduction, not in the biological sense but as transmission of a cultural or symbolic capital (which is similar but not identifiable with social reproduction). In particular, the reproduction of explicit symbolic systems: religions, ideologies, doctrines and art. The question is not so much how society reproduces its social structures (the family, the State, propriety, or the social classes) nor does it concern the agents of such reproduction (teachers, priests, workers, bureaucrats, etc.), but rather: what are the (infrastructural) routes followed by thought, along which an original idea develops and transforms itself? By dealing with high level social structures (art, religion, ideologies) and their relationship with socio-technical structures of transmission, the main concern remains the effectiveness of the symbolic sphere.

Since transmission implies organizing, it is strictly related to the territory: to solidify a group, to trace boundaries, to defend, to expel. The territory, of course, was already there. What is peculiar to transmission is the organization of the territory, its division and sub-division into a network of different areas (States, regions, towns, churches, routes, open fields, etc.) devoted to different tasks, as well as the infrastructures defining such territory. But there are no Empires without routes, and there are no routes without Empire. Infrastructures are therefore absolutely necessary, yet they are not sufficient for transmission to take place, because the driving force creating the Empire (its routes included) is human. The Roman routes outlive the Empire, but it is our memory of the Empire that lends meaning to those routes (similarly, Marx's texts outlive Marx, but it is political/educational institutions that lend meaning to them). And here is where translation comes into play.

Our memory of the Roman Empire is nothing but an act of translation in its widest sense: interlingual (from Latin into whatever the target language may be), intralingual (in the various rewritings of history), and intersemiotic (from texts, routes, buildings, remains, to documentaries, reports, movies, or theatre performances). And this applies, of course, to any fact, historical interpretation, ideology, or religion defining the symbolic sphere of a society.

It is therefore no coincidence that successful transmission takes place only when it remains unnoticed: "une transmission réussie est une transmission qui se fait oublier" (Debray, 1997, p. 33), exactly as good translations or efficient infrastructures are supposed to be.

Transformation is always inevitable and implies the death of the original: that is the mechanisms at stake when translation takes place. In Maeterlinck evocative words: "La nature veut que l'on meure dans le moment où l'on transmet la vie" (qtd. in Debray, 1997, p. 48): seeds cease to be seeds so that the tree can grow, and the tree is totally different from the seed that originated it. More generally, the outcome of a transmission process does not share the same characteristics of the initial message: for an idea to spread, it must be rephrased, distorted, changed. Transportation therefore transforms: what is transported gets remodelled, metaphorized, metabolized by its transit (the addressee receives a message other than the letter written by the addresser). From this point of view, transmission and translation become indistinguishable. *Traduttore, traditore.* Transmission is not a simple transposition from one place to another but a reformulation, a re- invention, an alteration. In other words, a translation, where the information transmitted (read: translated) is dependent on its medium of transmission, namely infrastructures.

CONCLUSION

Both translation and infrastructure share the same fundamental characteristics of bridging gaps, embodying culture, and – more generally – creating relations. It has indeed been shown how similar these notions become when specifically considered as relational entities. Because of this, on the one hand, it is possible to apply the defining features of infrastructure to translation.

On the other hand, the hermeneutic motion – originally meant as a theory of translation – can provide a neat representation of the dynamics at stake with infrastructure, from conception to implementation. Moreover, transmission, as defined by Régis Debray, sets the two notions in the same

theoretical framework, where it becomes clear how translation can only take place if there exist infrastructures, which will also affect the quality and type of translation itself. Also, translation – with the unavoidable transformation it implies – heavily imbibes transmission as well as infrastructure and, in several ways, it is indistinguishable from them.

There is further aspect which has been addressed here only briefly, but which would require additional investigation, and that is the ethical dimension of both infrastructure and translation. In common these two have an apparent neutrality in terms of ethics. History has proven that such neutrality is non- existent. On the contrary, the ethical bias of both can be and often is quite strong – and this is why further studies on this topic would certainly be revealing.

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