Cognition and Poliphony in the Translation of Documentaries

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ABSTRACT

Poliphony is used as an innovative tool in television documentaries to convey scientific information to an audience, with the effect that there is no journalistic mediation between the source (scientists, those affected by the issue introduced in the program, etc.) and the viewers. This trend increases the need for the translator to act as a cultural mediator.

1. INTRODUCTION

The aim of this article is to analyze some of the elements that have not always been considered when trying to explain the difficulties encountered in the process of translating programs related to the popularization of science. Those who have ever translated documentaries will immediately think of the long hours dedicated to finding the exact equivalent for the terminology. In general, we tend to associate the translation of texts connected with science with the struggle to find the most accurate equivalent terminology. This is certainly a bother when having to find the equivalent terms for plants or animals which do not exist in the target language, and for which a term has not been yet established. In addition, as we will see, verbal behavior and actions present in the documentary, which are common for the original audience, are not always easy to transfer to a different language. At the same time, as in other instances of audiovisual translation, image plays a main role and the sentence order may need to be rearranged in the target text accordingly.

To help us to track the aspects which need to be considered during the translation process and in order to highlight those instances where mediation will be required, I have divided this article into three sections. In the first one, I will define the concept popularization of science and I will show how information is presented in documentaries; in the second section I will describe the cognitive processes activated by the audience when trying to grasp the information present in these programs; and in the

last section I will illustrate how poliphony helps to introduce science through television.

2. THE CONCEPT OF POPULARIZATION OF SCIENCE IN THE MEDIA

I will now present a definition of the concept "popularization of science," since this notion has acquired different patterns in different societies, even when we look only into the mass media, mainly because producers are compelled to fulfill the aims and functions sometimes set out by them or by the television channel where the program will be shown:

> *La divulgación de las ciencias se puede interpretar de forma general como el proceso por el cual se hace llegar a un público no especializado y amplio el saber producido por especialistes en una disciplina científica.* (Casalmiglia 1997: 9)

According to this author, knowledge might be conveyed through two different channels: the education system and the media. In both cases, scientific communication is now linked to the demands related to the democratization processes (Casalmiglia 1997: 9), since modern societies view scientific knowledge as a right of their citizens and consider that science and research are nonsensical if they are not interwoven with the population's' everyday lives. In this context, Moirand (2006) stresses that "*como la ciencia no está en condiciones de poder explicar las causas y las consecuencias científicas de estos hechos o de estos acontecimientos (scientifc facts), el discurso mediático se desliza hacia otro tipo de explicación, aquella de las respercusiones de este tipo de funcionamiento en la sociedad.*"

Accordingly, and due to the importance of all the elements present in authentic messages, and which as stated by Jakobson, are the context, code, message, channel, sender and receiver, there are some distinct differences when the scientific knowledge is introduced by the education system or by the media. In this article, though, only the characteristics to be found in documentaries will be examined. Terminology problems will also be discarded, since they have been copiously debated in the literature, and because in documentaries its presence is relatively small in comparison with its use in other instances of scientific and technical texts.

As other authors have pointed out (Moirand 2006, or Salvador 2002), terminological density in scientific documentaries is relatively low, because television transforms the source discourse into secondary discourses. In television, instead of encountering a discourse between peers (Maingueneau 1992), where both participants act as sender and receiver, we find open discourses among three participants, and which are tightly connected with social representations shared by the public and its previous knowledge. The viewers form a very heterogeneous group, since their

previous knowledge can be either almost nonexistent, vague, or expert. As a consequence, if the usual terminology density to be found in texts used by experts was to be found in documentaries, this terminology would discourage a lot of viewers who will then decide to watch a different program, since they will not be able to understand the information in the program. Thus, in television, the popularization of science makes use of its own discourse practices, often far removed from those used by specialized language, *strictu senso*.

To successfully investigate this genre of the popularization of science, documentaries must classified as storytelling instances, and not as discourses:

> *Para poder determinar con mayor precisión la magnitud del fenómeno de la narratividad en este ámbito resulta necesario diferenciar con claridad las nociones de **discurso** y **relato**: si todo conjunto coherente de enunciados constituye un discurso, no todo discurso posee un nivel narrativo de organización de sus elementos.* (González Requena 1989: 57)

According to this same author (González Requena 1989: 24), the narration structure of the programs classified within this genre is the following:

1. a given initial situation for a given individual,
2. a given event where this individual is an active or passive participant,
3. a given final situation for this individual, different from the initial one and created by the event.

This structure, which is not very different from that to be encountered in classical theater, was found in the programs studied for this research. The tendency is to divulge knowledge related with subjects found in the news, important for the target audience considered as a social group, an aim which will be met through social applicability (for instance, how drug abuse, foot-and-mouth disease or the need to find a global measurement system can affect viewers and their families). The mirroring effect produced is not exempt from ideology. As a consequence, the fact that a program is created within a given culture summons the use of certain strategies, which in turn are able to set a certain social representation.

The examples to be shown in this article belong to a program broadcast by the BBC, *How long is a piece of string?* on November 17th, 2009, on Quantum Physics. This program can clearly be classified as an example of popularization of science, and presents the measurement units and tools used nowadays. The following is to be found in this episode:

> I knew this wouldn't be as simple as it first appeared but things were going well at this point. As far as I was concerned, thirty-two centimetres was close enough. But Marcus wanted to take me somewhere very special, a place that's dedicated to just one thing: measurement. And that's why we're going to the National Physics Laboratory. Fissular bodies were first used as a form of measurement so the Egyptians for example, they had something called a cubit and a 'cubit' is the distance from your elbow to the tip of your middle finger.

From the previous excerpt, I would like to underline two different facts. On the one hand, problematization is a recurrent element in this kind of programs. In the program analyzed, a perspective of conflict or confrontation is presented: the need to set up a homogenous metric system, accepted throughout the world and which can become as global as possible. On the other hand, we can identify an ideological message: our group, i.e. *we,* has met the objective to settle a universal measurement system, contrary to what happened during the Ancient Egypt period, and the solution has been possible thanks to a British Institution, the National Phisycs Laboratory.

This presentation of the *we* can be found in different instances throughout the episode, probably as a strategy to seek the affective implication and empathy of the viewers. Quite a number of approaches can be identified, but the most recurrent is the choice of the well-known scenery of the English coast. Let us look at some other excerpts of the program:

> So we travelled 132.4 miles to the west because Marcus says that my string is actually a famous mathematical conundrum and he seems to think that the way to solve it lies in measuring Cornwall.

> Studying Britain's crinkly coastline has actually resulted in a whole new field of mathematics.

> With a ruler, from Blackhead to Looe is forty-two centimetres.

Some problems occur when these statements must be transfered to another language and another culture. The empathy that we have previously described disappears, now the *we* are the viewers of the translated text and *they* are society where the original program was created. This is a clear example of symbolic violence, drawn by the translation of a program that introduces a group of values and attitudes which can only be forwarded with difficulties into the target culture.

Clearly, the essential mission of television is not education, but entertainment, together with other sorts of products which have been recently developed, thanks to the new technologies (the Internet, videogames, etc.). And this is a mission documentaries must also fulfill.

Therefore, television has created hybrid programs, as in the case of documentaries, which share some characteristics typical of the news, but which also contain elements to be found in entertainment programs. This aim is accomplished through different means, as for example through editing. As we have been able to observe in ther research (Bassols, Rico, Santamaria & Torrent, in press), non-standard editing (with quick changes of shots, and a wide range of combinations between the video and the audio, for instance) may help to capture teenagers' attention, a group which prefers programs where the information is presented through a high variety of stimulation).[1]

Another mecanism to introduce the necessary amount of entertainment is through the program's presenter. As we will see in the last section, the presence of well-known persons in this kind of programs (in the program we are here describing the presenter is known to the audience due to his previous participation in entertainment programs) helps to communicate the entertainment role which the program seeks to convey.

3.   POPULARIZATION OF SCIENCE AND COGNITION

The popularization of science will only be possible when the knowledge the program wants to convey can be added to a certain previous knowledge held by the public. In this way, its background will help the individuals to increase their general knowledge. It has to be taken into account that audiences are not constituted by groups of passive individuals. On the contrary, their perceptions depend on their own attitude towards the information and the stories offered to them (Soukup & Soukup 1997).

According to Heit (1997: 10), when we learn something new, we try to make use of previous knowledge structures, while when the new knowledge we come up with is too new or different from the one kept in our knowledge structures, it will undoubtedly be more difficult to process. At the same time, previous knowledge acts restrictively on knowledge acquisition, i.e., it leads to certain observations and restricts our capacity to draw hypotheses.

The real life presented in documentaries can also be shared by the speakers of the original and the target text, as in the following example, where the presenter of the program introduces the Physics specialist who will help him to disclose certain scientific facts to the television audience:

Professor Marcus de Sotoy is a maths genius but also rather foolish.

In this case, where the dialogue had to be translated from English into Catalan, it did not cause any unsolvable problem. The stereotype of a

bright, but eccentric, scientist, with great knowledge in his field is shared by both cultures.

On the other hand, the translation of the following dialogue could imply more problems and need a more active participation from the translator as a cultural mediator:

OK, you want the one minute version? Or the sixty minute version?

The previous questions may only refer to whether the scientist should provide a shorter or a longer answer, but one can also see a reference to the program *60 minutes* produced by the North-American channel CBS. Therefore, only if the target audience is familiar with this program will the reference be understood.

As we have explained before, the media does not only have a mission to present information, but also entertainment. The hybridization of the genre affects, as we can see in the following example, the customary relationship of the participants in this sort of programs:

OK, tiger. Can I just – hold on there

The previous statement is addressed to the presenter of the program, a character I will analyze in the following section, by the specialist of the scientific area presented in the episode. This is an instance that may require the translator's mediation, if he considers that the target audience will not understand the relation between the specialist and the presenter presented in the program. In fact, if the statement does not follow the usual pattern of the conversational norms used by speakers of the target language, the empathy of the viewer for the program may be threatened and consequently the audience might even have doubts about the quality of the information given, since previous knowledge, as we have already explained, conditions the capacity to learn new knowledge.

It should be analyzed whether audiences can be understood as groups of individuals with the same the cognitive resources or whether personal abilities should be taken into account. At the same time that cognitive processes have a personal component (Codol 1984), a social component can not be denied, in the sense that speakers acquire knowledge and attitudes, not always consciously, while sharing social representations. Otherwise social communication would not be possible. We can define, then, the knowledge belonging to the social conscience, and shared among the members of a same group, and which allows a social distribution of knowledge (Berger & Luckman 1988).

Therefore, we can establish, as we have already seen in the last section, interaction between messages and the audience (Soukup & Soukup 1997: 104):

- media messages and media audiences interact;
- audience members' communities position them to construct a certain meaning over another, within the range of possible meanings of the text;
- media messages are constructed to define a range of meanings;
- audience members also respond to their own needs and goals;
- technology aids audience understanding by extending the audience's world and helping to shape the world.

This quotation throws light on the importance to bear in mind the target public when producing programs. And this is the reason why mediation will be needed when the conversational patterns in the original do not coincide with those used in the target language. The reason is simple. Participants' roles in a communication act conform to the learned patterns of action that we have acquired as speakers and which are reproduced according to the habitus (Bourdieu 1991).

It must be emphasized that audiovisual productions must also accommodate to the requirements posed by specific ideological domains. When the documentary deals with the living conditions in a certain region, these are explained through the concepts and knowledge shared by the audience of the original text. We could say that these explanations are built according to the established ideological bias, and not according to the values shared in the region depicted.

Translation norms applied during the transformation process must not be disregarded, since they will establish the distance allowed between the originals and their translations. These norms will allow or prevent the communication of some of the social representations the original wants to communicate. In any case, we should remember that the media is able to disseminate dominant social representations of the original culture with a high degree of efficiency. The media becomes especially relevant, due to its favorable opportunities to propagate opinions, attitudes, and stereotypes, as all three of these concepts are related to social representations. Thus, we can also pinpoint instances of symbolic violence in the translated television documentaries.

4.   POLIPHONY IN TELEVISION DOCUMENTARY DISCOURSES

The need to innovate has also applies to documentaries. The usual structure of having a single presenter interviewing a specialist is rapidly disappearing. The number of voices has increased, giving the viewer the belief of having direct access to the source. Poliphony has meant giving voice to specialists and those affected by the issue.

This multiplication of voices in the programs fulfills the democratizing aim we described in the first section. The viewer believes that they have access to the information, not only through the scientific mediator, the presenter, but also to the source itself through specialists and

the people affected, presenting the events explained in the program. Information reaches the audience through these voices, which conform to a polyphonic discourse, a network adjusted the established cannon, with the objective to recreate the environment necessary to fulfill its mission.

The discourse fits in a highly regulated cannon. According to Charaudeau (2008), the discourse strategies used in documentaries are legitimation, credibility and captation, based on the classic categories of rhetoric: *ethos, logos* and *pathos*. The experts, the affected by the issue, and the mediators appearing in these programs need to be legitimized and be able to project a credible image of themselves to the viewer. And, in consequence, they gain authority with their audience. Also, according to Charaudeau, the discourse of experts, witnesses and those affected is focused on the other, *logos*, and on the values and the ideas, *ethos*. The media also needs to captivate audiences and therefore, discourse and discursive strategies focus on the other, *pathos*.

These strategies can be found in the script, but the sound and the image also fulfill a clearly strategic function in the construction of the participants' identification. Accordingly, the dramatic setting (a laboratory for instance) will recreate the necessary authenticity; the camera will emphasize the relationship between the sender and the audience (close shots allow, for instance, to observe the surgeon's skills or a traveling shot may include the presenter and those affected to recreate an image of intimacy, etc.). At the same time, the discourse of the expert is never to be disturbed by any noise, while the manipulated "authentic" real soundtrack may increase the emotional message of those affected.

In all these programs, there is a process of spectacularization and dramatization, since television "*escenifica en imágenes, un acontencimiento y exagera su importancia, su gravedad, así como su carácter dramático trágico*" (Bourdieu 1997: 25). On this account, the program I have analyzed for the research in this article deals with the difficulty to measure without errors, a problem which could easily be found banal by the audience. Nevertheless the necessary captation strategies are used to attract the viewer's attention. The image plays a main role in this context, but also the presentation of the subject as a conflict (Charadeau 2008; González Requena 1989). Another classic means is the narrative tension achieved in the discourse through anticipation ("What's needed is some science"). In the same program, other strategies with an important role in the process of captation can be found: contextualizations ("This is a place filled with priceless treasures carefully locked away"); definitions and repetitions ("They are the country's measurement standards, objects that define the units we use to measure every day"); or synonymy ("We need something which is going to be the same for everybody. You don't really want it depending on whether people are tall or small, or how big things are. You want something which is going to be standard").

The presenter's behavior becomes part of the spectacle when he says: "I feel like Q in James Bond. Don't touch it, Bond" or refers to himself as a bad student: "This is exactly what I was afraid of, being locked in a dark room with a physics teacher. Any minute now she'll ask me for my homework." To have chosen such a presenter for the program becomes a new element of spectacularization, since Alan Davis is an actor, humorist and writer, probably best known by the British audience for his participation in the mystery series *Jonathan Creek* produced by the BBC between 1997 and 2004 and his participation in *QI*, a game show seasoned with humor with well-known participants broadcast by the BBC since 2003.

In this case, the presenter's identity is familiar to the English public with a legitimate and credible pattern. On the other hand, his behavior might appear strange to the target audience because of the discourse strategies he uses (we can only remember the lines presented before: "OK, tiger. Can I just – hold on there" and "I feel like Q in James Bond. Don't touch it, Bond").

When the protagonists in the documentaries are people who can be easily recognized by the audience, the differences between the enunciator and the discursive figure are mitigated. According to González Requena (1989: 34):

> *[...] enunciador y enunciatario son figuras producidas por el discurso a través de todas las elecciones que se hallan presentes en sus diversos niveles de organización – desde su estructuración narrativa a su configuración rítmica, desde la composición de sus imágenes hasta la articulación de sus estructuras semánticas. O en otros términos: el enunciador no es quien realmente habla un discurso, sino la figura, deducible exclusivamente a partir de su propio discurso, de quien dice hablarlo.*

In this case, as in similar instances, the presenter's identity has been established outside the program and confers a new meaning to the discourse. In our program, the message could be: science can also be fun. In other programs, when the media discloses the presenter's identity and underlines the fact that he is a scientist, the character is constructed beyond the boundaries of the program.

All these identities are altered through the process of conveying them to another language by means of translation, since enunciators become flat characters with an identity that can only be understood within the program itself. In terms of Charadeau (2008: 13), the contract of communication between the subjects of enunciation is broken, because:

> *une partie du sens est construite avant que l'on entre dans l'spécificité d'un texte, et c'est le contrat de communication qui la met en place, sur-déterminant en partie les acteurs de l'échange.*

The decision to use dubbing, subtitling or voiceover to translate the program can also alter the characters of the protagonists in a documentaries. Although the translation patterns used are not the same in all countries and by all the channels, some general rules can be established, according to a recent study carried out by SMDG/EU (2007) on the practices in the European Audiovisual Industry:

> Documentaries are a special case: very often, non-national documentary films are screened with voiceover, or a mixture of voiceover and subtitling. (SMDG/EU 2007: 5)

This means that the translators must know the translation norms to be applied in each situation. Voice-over is usually used for the narrator and the presenters, and subtitling is used for well-known characters, as long as they do not interact with the presenter in the same sequence.

The fact that different modalities of translation may be used according to the identity of the characters reveals a series of patterns behind the informative function, which is interpreted to be the main objective in science programs.

5.   CONCLUSIONS

In this article the difficulties to translate programs related to the popularization of science have been analyzed. To achieve this objective, we have examined the structure of such programs and the function they fulfill. The search for the exact terminological equivalents has been considered a minor worry, because the main misunderstandings the translation can create are due to other factors.

Thus, the difficulties posed to translators are mostly due to the sociocultural distance between the original and the translation. Since previous knowledge of the audiences might be different, both because the original and the target audience may have different information on the subject of the program and on the actors, generating a polyphonic discourse.

In this context, the usual practice of using different translation modalities within the same program underlines the different roles assigned to the subjects who appear in the programs.

NOTE

1. About knowledge acquisition, Smith and Samuelson (1997: 171) assert that "they (cognitive processes) are temporally extended with real rise time and decay time such that activity at that moment depends on and emerges out of preceding activity."

REFERENCES

Bassols, M., Rico, A., Santamaria, L. & Torrent, A. M. (in press). *El uso del discurso cinematográfico y de la red en los programas televisivos de divulgación del conocimiento.*

Berger, P. & Luckmann, L. 1988. *La construcció social de la realitat. Un tractat de sociologia del coneixement*. Barcelona: Herder.

Bourdieu, P. 1991. *Language and Symbolic Power*. Cambridge: Polity Press.

——. 1997. *Sobre la televisión*. Barcelona: Anagrama.

Casalmiglia, H. 1997. Divulgar: itinerarios discursivos del saber, *Quark,* 7, 9-18.

Charadeau, P. 2008. *La médiatisation de la science. Clonage, OGM, manipulations génétiques*, Collection Medias Recherches. París: De Boeck.

Codol, J. P. 1984. On the system of representations in an artificial social situation. In R. M. Farr & S. Moscovici (Eds.), *Social Representations* (pp. 239-253). Cambridge and Paris: Cambridge University Press and Editions de la Maison des Sciences de l'Homme.

Dubbing and subtitling needs and practices in the European audiovisual industry. Internet resource. 2007. *Society and Media DG of the European Commission (SMDG/EU)*. Available online: <http://www.mediacg.tv/modules/smartsection/ item.php?itemid=46&sel_lang=english>.

González Requena, J. 1989. *El espectáculo informativo o la amenaza de lo real*. Madrid: Cátedra.

Heit, E. 1997. Knowledge and concept learning. In K. Lamberts & D. Shanks (Eds). *Knowledge, Concepts and Categories* (pp. 7-41). Cambridge (MA): MIT Press.

Maingueneau, D. 1992. Le tour ethnolinguistique de l'analyse du discours. *Langages*, 105, 114-125.

Moirand, S. 2006. La divulgación de la ciencia y la técnica: Nuevos. modelos para nuevos objetos de estudio? *Revista Signos. Estudios de Lingüística*, 39/61, 231-258.

Salvador, V. 2002. Discurso periodístico y gestión social de los conocimientos: algunas observaciones sobre didacticidad, *Anàlisi*, 28, 107-120.

Smith L. B. & Samuelson L.K. 1997. Perceiving and remembering: Category, stability, variability and development. In K. Lamberts & D. Shanks (Eds.), *Knowledge, Concepts and Categories* (pp. 161-194). Cambridge, MA: MIT Press.

Soukup, P. & Soukup, S. J. 1997. Understanding audience understanding. In R. Hogdson, A. Paul & S. J. Soukup (Eds.), *From One Medium to Another* (pp. 91-107). New York: American Bible Society.

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