



Translation as a Multimodal Negotiation Process

Sabine Hoffmann, Palermo

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The research presented in this paper aims to render more visible the negotiation process of beginners in German as a foreign language (level A1 and A2) at university, while they translate previously simplified texts from Italian into German using Google Translator. The study belongs in the field of classroom research focusing on the learner's use of online resources during translating activities. The approach used for the empirical analysis is a multimodal method which is exemplified by analysis of a video sequence. The paper then discusses and evaluates the value of Google Translator as a teaching aid in foreign language classes.

1. Translating in the foreign language classroom

Translating has played a fluctuating role in foreign language teaching. Once the noble path to foreign language learning in the Grammar Translation Method, subsequently dismissed by Communicative Methodologies, in recent years it has been receiving increasing attention (see Königs 2010a: 97f). This re-evaluation relies less on new arguments in favour of the utility and function of translation activities in foreign language teaching, but more on a fresh understanding of foreign language learning and the actual learner, in which the skill of translating as “a thing for the future” (Cook 2007) combines “natural” foreign language-learning behavior with current social requirements and technical innovations.

The *Common European Framework of Reference for Languages* (CEFR) also takes these changes into account when it refers to the “mediating activities and strategies” in spoken language: the simultaneous, consecutive and informal interpretation, and in the written part: exact and literary translation, summarizing within L2, or between L1 and L2, and paraphrasing (CEFR 2000: 87). Simultaneous and consecutive interpreting activities, or the translation of specialized texts, will rarely represent the task nor the goal in a foreign language lesson at school-level, nor the content in a seminar of a Bachelor- or Master-Degree-Program in Foreign Languages (Königs 2010b: 1045). Here mediating activities are more appropriate¹, because they give the opportunity for

¹ In the classroom, mediating activities are preferably content-oriented tasks where the learner applies translation skills in conjunction with other skills, e.g. specific information in the target language is made available orally or in writing to an addressee group (Königs 2010b: 1045, for the professional profile of the mediator in Italy see Diadori 2012: 92).

diverse co-operative tasks (see Rösler 2000), in which the students – often with the help of specific tools (translation software, dictionaries, other sources of information) – negotiate verbally and nonverbally with each other, the transfer of texts or work assignments in the target language.

Although we have extensive literature on theory and practical examples of mediating activities in pedagogical settings (e.g. Reimann & Rössler 2013, Wieland 2016; for Italy, for example: Curci 2008, Cinato Kather 2011), the field remains empirically unexplored. There are only a few studies that deal with learners translating or mediating as an exercise during their foreign language lesson at school or university (for example: see Schädlich & Ramisch 2013). In the following chapter we shall be examining studies regarding the learner's use of specific tools during the translating and mediating process in the L2 learning context, firstly those from the past and with a learning psychological approach, and then those from a more recent research perspective, based on microanalysis.

2. L2 Learner Use of Web-Based Machine Translation or electronic dictionaries

2.1 Review of the Research

Dictionaries represent an essential tool for mediation or translation in the foreign language lesson, but their use and application at school and university constitutes a relatively recent field of research; the first studies date from the 1970s (Harvey & Yuill 1997: 253).

Whereas research initially focused on identifying the reasons for utilizing this tool and the questions regarding its potential form, interest in subsequent years concentrated on how learners actually use dictionaries when they are translating in the classroom.² Intro- and retrospective methods, usually coupled with questionnaires, endeavour to understand not only what and why learners are looking for a given item in the dictionary, but also whether they consider this search as successful (Harvey & Yuill 1997: 255f).

² Parallel to this development the study of textual translation processes begins during the 1980s. Hitherto, the interest had been mainly in the products of textual translation, rather than the translation process (see e.g. Alves 2015: 123).

Furthermore, we also find log-file protocols and verbal interviews and, less frequently, video recordings (Engelbert & Lemnitzer 2009: 84/85).

Concurrently with the replacement of the printed dictionary by electronic dictionaries (ED) and along with the increasing use of smartphones and tablets over the last two decades, the use of ED, especially at Asian universities, has been increasing rapidly (Hauser 2014: 6). In the few empirical studies, the methods described above for printed dictionaries (e.g. questionnaires and/or intro- and retrospective interviews) are often used in experimental research projects. The results basically attest to the superiority of the ED over print media because of its speed and flexibility of handling, ease of transportation, allied to (mostly) free application (Nied Curcio 2015: 300). Nevertheless, despite these results, its use in the foreign language classroom remains highly controversial (Larson-Guenette 2013: 63) and – as researchers note – there is often a prevailing negative attitude towards their employment (Barrow 2009: 1, Correa 2014: 3, Williams 2006: 566; on the other hand, Nied Curcio 2015: 303 points to a growing open-mindedness in the curricula of German schools). Moreover, the CEFR does not do justice to its ubiquity in the everyday life of learners; the references to the use of dictionaries are partial and inaccurate (Nied Curcio 2015: 302), their function is made explicit only during the correction phase of written texts (CEFR 2000: 88), whereas their use could also be taken into consideration during the planning and execution phase (Nied Curcio 2015: 303).

Like the ED, web-based machine translation programs (WBMT) also belong to the online resources that are frequently used by L2 learners (Larson-Guenette 2013: 62). Garcia & Pena (2011: 472) stressed that, in this regard, a distinction should be made, because in ED learners search for individual words, expressions or spellings when creating or revising a text in the target language, whereas in WBMT they usually enter sections or whole passages in the L1. This implies not only a diverse access to the online resource but also a different use in the classroom. There has been no research into the different use of these tools, but some generalized data regarding access to WBMT. In a study by Larson-Guenette (2013: 65), with a small sample of German students ($n = 71$), 99% search for a single word, 56% one sentence, 13% entire sections and 6% whole texts, either in the ED or using an online translation site or program (the choice presumably depending on what they are looking for). In the survey by White &

Heidrich (2013: 233), adult second-year students of German reported normally using WBMT for an average of 27.7% of an assignment in the foreign language.

With regard to the use of ED, the studies are mostly carried out with advanced learners and refer to the post-editing phase in writing processes. The data is gathered by means of surveys examining motivation and attitudes to the program; these are often supplemented by interviews to help reveal learner-strategies (e.g. Larson-Guenette 2013, White & Heidrich 2013). Generally, the results confirm speed-of-search as one of the main reasons for their use. Another approach in this field takes the form of comparative analysis of error frequency by machine-translation-program, post-edited texts (Niño 2008) or written tasks (Garcia & Pena 2011). The findings mainly attest to the potential of WBMT for building up awareness (see also White & Heidrich 2013: 243, Williams 2006):

This suggests that raw MT output can be a meaningful source of errors to be corrected by advanced students of the target language in order to produce a comprehensible text. This practice triggers error awareness and provides opportunities for error correction through focus on form and negotiation of meaning, which are known to enhance grammatical and lexical accuracy. (Niño 2008: 44)

Furthermore, it seems that it is L2 beginners, especially (Garcia & Pena 2013: 485), and weaker learners that can benefit most from these programs (e.g. Jian et al. 2009). There is certainly a great need for further studies in the actual classroom, whilst avoiding negative feedback from teachers with regard to what students nevertheless continue doing:

For future research, we recommend that student use of WBMT tools be observed in the context of actual classroom assignments with diverse student populations. This would of course necessitate first removing the prohibition against WBMT. (White & Heidrich 2013: 243)

This aim is pursued by studies with microanalytical methods, which are presented below.

2.2 Microanalytical approaches in classroom research

Microanalytical approaches to the field have emerged in recent years as an alternative to the methods described above. The focus is on interaction between learners using ED or WBMT on computer, tablet or smartphone. Most of these studies are based on Conversation Analysis (CA), with utilization of this sociological (ethno-methodological) method (Sacks et al. 1974) for the foreign language classroom

beginning in the late 1990s (Fox et al. 2013: 727).³ The interaction is seen as an institutionalized discourse (Seedhouse 2004) constituted by conversational routines typical of foreign language learners (Gardner 2013: 607f). The analysis relies on transcripts from audio and/or video recordings that describe the sequential organization of the turns (e.g. Schwab 2009). In contrast to the approaches mentioned above, in which research implies taking a look inside, here the processes are understood from an external perspective and measured by output (see Kress et al. 2001: 28). In the late 1990s CA gradually included the multimodal dimension of communication that had recently emerged in CA (Mondada 2014) and in other academic contexts (see e.g. Jewitt 2009) as Discourse Analysis (Norris 2011: 2, 35ff) or Semiotics (Kress et al. 2001: 11, 43).

One of the first studies emerging from this last orientation was by Jack Barrow (2009), who used a video recording of an intensive English program for 20 novice students enrolled at a Japanese university. The aim of the research is defined as “an exploration of social practices”:

What this study is not focused on is vocabulary acquisition or communication strategies based on psycholinguistic constructs. Social practices of the look-up of words, their collaborative use in the talk, and the display of understanding are empirically described. Rather than a study of strategies used when encountering trouble with a word, this study is an exploration of the set of social practices in which collaborative “doing learning” of vocabulary occurs during talk in the foreign language. (Barrow 2009: 5)

Social practices refer not only to the verbal level of communication, but imply embodied actions, where pointing, gestures, use of materials objects, body movement are components in the turn construction (Barrow 2009: 37ff). His study reveals that “one characteristic of novice-novice behavior is the hybrid pairing of embodied actions with vocal acknowledgements to establish mutual understanding” (Barrow 2009: 190). It seems that for this weaker group of learners in particular, “gesturing can add to the opportunities for the sharing of word knowledge” (Barrow 2009: 202).

Hauser’s study (2014) also deals with discourses between Japanese English-learners from two universities in Tokyo using, in part, a bilingual ED. One of the research results shows the relevance of the ED as material object, its function in co-structuring the interaction:

³ Normally, the paper by Firth & Wagner (1997) is indicated as the starting point of the diffusion.

[...], physical manipulation of an ED, search as one way or another, can have interactional significance (e.g., attract another's gaze to the dictionary). Like other material artifacts (Cekaite, 2009), EDs can be used as a resource to organize their interaction. (Hauser 2014: 19)

Similar to this are the findings in the analysis by Greer (2016), which explores an almost two-hour, non-institutionalized conversation between a Japanese and an Indonesian student staying with their American host families. They both use smartphones to look up unknown words during the conversation. Research interest lies in the way in which they handle their resource, whilst looking at the screen, pointing to the screen, nodding, changing posture and the position of the smartphone itself. The non-verbal description includes textual and imaged-based material. Although this study emphasizes the physical presence of the material object (Greer 2016: 224), this does not represent the only instrument that the participants are using to overcome communication difficulties; for example, they are also employing photos as an aid to communication (Greer 2016: 218).

Finally, I would like to mention two studies by Levy & Gardner (2010, 2012), in which two high school students work together to create a homepage on the PC. The focus of the study is on how the various activities of the real world and the screen/virtual world are interconnected; this implies “interactions between the two students and the computer screen, keyboard, and mouse, and explores temporal synchrony and matching points between speaking and typing and speaking and moving within and between participants” (Gardner & Levy 2010: 2189). The study shows that the coordination of the various activities is carried out in different ways depending on the kind of task that has to be accomplished. In this regard Levy & Gardner distinguish between two forms of tasks, routine and complex:

What our analyses showed was that when these students performed multiple tasks, there was an evident threshold below which they could perform routine tasks without disruption to their talk, and above which they were not able to perform the more complex tasks without their talk exhibiting pauses, restarts, and other hitches or perturbations. These we have called ROUTINE ON-SCREEN ACTIVITY and COMPLEX ON-SCREEN ACTIVITY. (Levy & Gardner 2012: 564)

While “routine on-screen activity” allows talk at the same time as other actions, the “complex on-screen activity” implies momentary disruption of talk. The first is defined by Levy & Gardner as an action “requiring binary choices”, the other “required choices from more than two options” (Levy & Gardner 2012: 560). In the second case, in order to make a selection, you need to focus on certain on-screen activities, and this often

comes with instances of silence or disruption in the flow of verbal communication. The topic of “focusing” is also well known in Foreign Language Acquisition Research in the form of a distinction between activities demanding low energy and attention, and, therefore, allowing concurrent actions, and others that demand a higher level of attention and where other tasks cannot be carried out at the same time.

The study of the use of ED or WBMT on computer, tablet or smartphone, when considered in a complex learning environment such as a classroom, implies focusing more and more on understanding the ways in which the learners’ attention is directed to specific tasks. The multimodal (inter)action analysis by Sigrid Norris (2004, 2011), offers an interesting new contribution as regards this aspect.⁴ Firstly, for Norris, interaction happens in the material world, which shapes communicative behavior; though not directly involved in the communication act, yet providing a context, it could, for example, take the form of equipment in the school-classroom, the arrangement of the desks, the objects in the room, and so on. The objects are imbued with “frozen actions” because previous actions are “frozen” in objects in the real world. Embedded in this context we have the first level of action, the higher actions, or events that persons actively and often intentionally perform in their social life, i.e. a talk in the classroom about the last school trip or an oral exam at the university. This “higher level” is supplemented by a second level, the “lower level actions”, consisting of gestures, utterances, postural shift and so on.

In other words, a conversation [that is, a higher level action, SH] [...] is constructed through the many utterances, postural and gaze shifts, and gestures that the participants perform, but, at the same time, the participants perform the many chains of lower-level actions in order to converse. (Norris 2011: 39)

Lower-level actions consist in an interplay between communicative modes; these are not fixed and may change in the interaction process, which then depends on the goal of the higher-level action. Frozen, higher, and lower actions are interconnected and complement each other (Norris 2011: 42).

Secondly, in the chain of actions “momentary focal points” emerge, where a *Site of Engagement* arises (Norris 2011: 44ff); this “reflects the highest point of attention/awareness of the participants” (Norris 2011: 50). It is a matter of turning upside down the “background/foreground relations”: actions that were in the

⁴ For a more detailed description of this approach, see Hoffmann (2017).

background, now approach the foreground and receive the greatest attention. When attention decreases, the actions shift from the front into the middle- and background in a fluent transition (Norris 2011: 217ff). In accordance with this picture, the participants in a momentary focal point cannot pay close attention to several actions at the same time; only at a lower level can listeners, as well as speakers, deal with diverse, simultaneous actions (Norris 2004: 94ff).

This kind of analysis describes actions resulting from the constant flow of attention, offering categories of interpretation for the observable interplay of communicative modalities. Especially in the classroom, where attention is linked to learning, this approach seems to be appropriate and useful in the exploration of the interaction between learners and real and virtual space.

3. Empirical Study

In order to study how the translation processes are closely connected with the issue of attention and multimodality, in the past I carried out extensive research into classroom interaction, using video-recordings and micro-analysis.⁵ Here I want to give a short report of a study on how learners handle Google Translator, a program that they use in their everyday lives, and how, in a group, they negotiate the various solutions provided by the program regarding a simple lexical choice.

This negotiation process is understood as a chain of embodied actions which includes the arrangement of the material objects and participants' bodies. Furthermore, relying on the previously mentioned literature and applying multimodal analysis, I want to show how a shared attention of learners, through the interplay of different communicative modes, brings about understanding and eventually helps in the learning of German as a foreign language.

A few brief words on the research context. The study was conducted in the academic year 2013/2014 at the University of Calabria with a group of 16 students on the MA program in Tourism Management (beginners in German at A1+/A2 level). The project consisted in the creation of various web pages for the "Sila National Park" in Calabria. Firstly, the students created a simplified version of parts of the homepage and then translated these parts using Google Translator. The students cooperated in 4 groups of 4

⁵ For a first less fine-grained analysis of the sequence see Hoffmann & Fele 2014.

persons each, and they had 12 hours (4 hours for three days) at their disposal for the task. The four groups were distributed in two rooms in the Foreign Language Center. Two computers were available for each group. The ways in which the tasks were performed were recorded by two video cameras (frontal and rear) and one audio recorder. Moreover, in each case a student filmed the work of his/her own group. The recordings were transcribed according to the GAT II conventions (Selting et al. 2009).

The work of the pupils was organized in five steps (*Fig. 1*):

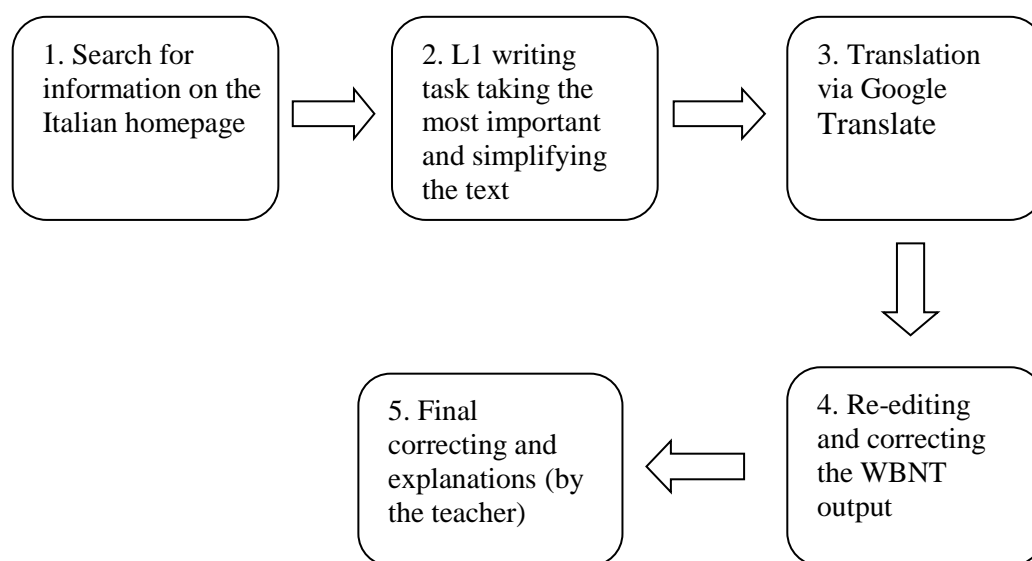


Fig. 1: Pupils' task in five steps

I was interested in studying how the learners perceived a problem and then negotiated a solution in a group. I focused particularly on the different communicative modalities that could be used for action.

I will focus on a single sequence (one minute long) using a single case analysis (Kratochwill 2015, Ledford & Gast 2018, Schegloff 1987). We find Giovanni, Alberta and Marta sitting in front of two computer screens.⁶ A pre-selection of the texts for the homepage has already been taken (step 1), these texts have just been simplified (step 2) and generated via Google translate (step 3). Now the students are working on step 4. The sequence is about the correct translation of the word “museum” from Italian to German. The main part of the interaction is in front of a computer screen.

⁶ The names have been changed.

I have divided the analysis into 5 moments. Each moment represents a cognitive task which is socially and collectively constructed and negotiated. It is through this construction and negotiation that a deeper understanding of the translation problem can be fully appreciated.

1. Individuating a translation problem

01 Gio museo si dice così in tedesco?

Is „museum“ written in this way in German?

02 ((Giovanni moves slightly forward and points with his finger to the word “Museum” in the middle part of the text on screen 1. Alberta looks very quickly at the screen where Giovanni has positioned his finger, *Fig. 2*))



Fig. 2 – Individuating a translation problem

Giovanni was checking the German text at the screen when he notes an inconsistency in the writing of a noun ("Museum", which appears in the middle of the screen and "Museen", which appears at the top of the screen). He manages to get the attention of his colleagues on the correct form of the simple word. He clearly identifies a translation problem and makes it a communal concern, trying to share with his colleagues his puzzlement (01, 02, Fig. 2).

Next we see what kind of reaction he gets from his colleagues and what kind of treatment his puzzlement receives.

2. Sharing the problem, getting the attention from the others

First of all, once a problem has been spotted, there is the additional problem of turning the attention of the others to the translation problem in order to share the same concern.

- 03 ((Alberta and Marta move on their seats))
 04 Alb m?
 05 ((Alberta turns his gaze to the screen. Marta is looking at a different screen))
 06 eh?
 07 Gio questo è tedesco?
is it German?
 08 ((Giovanni points again at the word *Museum* on screen 1 in the middle part of
 the text))
 09 Alb museum. ((Alberta reads the word shown by Giovanni))
 10 mah, non mi sembra proprio tedesco.
well, it doesn't seem really German to me.
 11 qua museen, là museum.
here museen, there museum.
 12 ((Alberta looks first up, then down, and up again at the screen))

The first interactional problem in addressing the translation issue seems to be that of making all the students in the group direct their collective attention to the issue. Once identified, the problem should be presented, making it available for the scrutiny of the others. By pointing to the screen, Giovanni is both highlighting the translation problem and getting the attention of his group partners.

Reconfiguring attention is not an easy task. Alberta addresses Giovanni's concern, but she cannot recognize at a glance where the problem might lie. Therefore, Alberta, with a minimal request for repetition, asks Giovanni to explicitly clarify his concern ("eh?", 06). Giovanni now has Alberta's attention and can restate the problem (that maybe *Museum* is not a German word, 07), pointing again to the screen with his finger (08). Alberta reads the word out aloud (09), pondering on the kind of translation problem individuated by Giovanni, and then giving her answer to Giovanni's question (agreeing that it doesn't seem that *Museum* is, in fact, a German word, 10), noticing the two different spellings with which the word *Museum* appears in the text (11).

We have seen that individuating a translation problem is not easy, and that pointing out the problem does not in itself make it evident. So, after obtaining the attention of the co-workers, the interactional problem involves shared awareness of the same issue. Achieving shared appreciation of the translation problem requires active engagement and concrete interpretive work. This engagement and interpretive work are better appreciated looking at the interactional construction of the problems, instead of focusing on single individual skills.

The translation problem is now no longer an individual puzzle but has been jointly recognized and shared. We will see in which ways it is dealt with, and what solutions are sought for it.

3. *How (apparently) to solve the puzzle*

Given an automatic translation issue, there could be many explanations for the problem. One of these explanations may take into account the possibility that a word could be automatically translated by Google to another language (one from Italian to German, the second from Italian to English). This is what Giovanni seems to be addressing; in the text, the Italian word *museo* seems to have been translated in two different ways because the automatic translation offers a translation into two different languages.



Fig. 3 – Apparently solving the puzzle

- 13 Gio questo mi sembra inglese, non so.
it looks like English, I don't know.
- 14 ((Giovanni puts his finger in the middle part of the screen and moves it upwards to where *Museen* is written. Alberta and Marta look at the screen following the movement of Giovanni's finger, Fig. 3))
- 15 Gio miusium. ((English pronunciation of *Museum*))
- 16 ((Alberta switches the screen to Google Translator and writes "museum" (singular) in German))
- 17 Alb qua è museum. ((on the screen the Italian translation gives *museo*))
here it's museum.
- 18 ((Giovanni points at the word on the screen, where the Google Translator page is open))
- 19 Gio prova con la "en"?
try with a "en"?

- 20 Alb aspetta, se noi cerchiamo, cerchiamo museo,
wait, if we have to look, we look for “museo” (singular, in Italian)
- 21 Mar allora direttamente, cerchiamo museo, e basta.
so, let’s look directly for “museo”, that’s all.
- 22 ((Alberta erases the previous German text, and now she writes *museo*))
- 23 Alb museum. ((Alberta reads the result of the German translation))
- 24 Mar museum, basta.
museum, that’s all.
- 25 ((Marta looks away and turns her body to the right))

As we can see in line 13, Giovanni offers his understanding of the apparent mistranslation of the Italian word *museo*. Both Alberta and Marta are not able to provide a conclusive explanation regarding the apparent translation problem (why the “same” word is translated in two different ways). The group proceeds to look for a solution. If Google is the source of the trouble, it is in Google that they should find the solution. The ways in which the automatic resource is explored are interesting: Alberta opens up the Google translator page and types “museum” – selecting German as a language source, and Italian as the translated language (16, Fig. 4). In this way the three members of the group have the first automatic answer to the translation problem: *museum* seems to be the correct German word for the Italian word *museo*. In this way, the first doubt from Giovanni (that it could be an English word) is resolved: “museum” seems to be a correct German word (17).

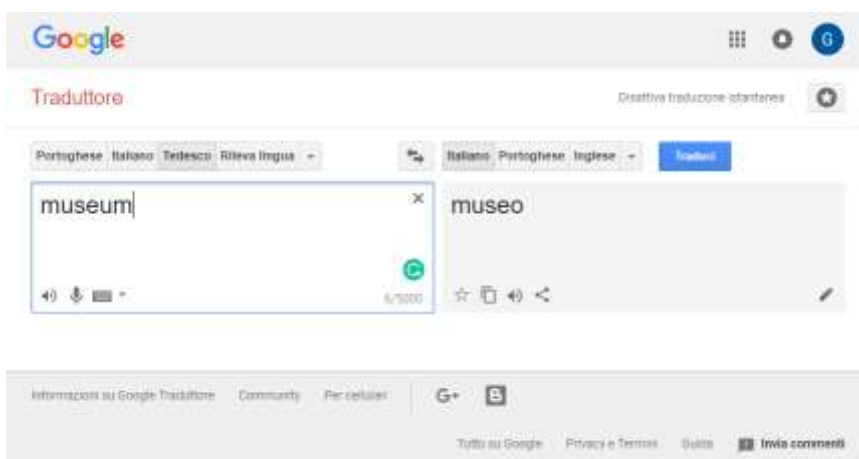


Fig. 4 – Typing “museum”

Giovanni asks Alberta to try exploring Google translator in a different way. Instead of writing the word “museum” so as to check whether it is a German word, he asks to write

the other, apparently odd term, “museen”, to see what might be the outcome (19). It would be a kind of test case, double-checking both words.

At this moment there is a brief negotiation among the members of the group regarding how to search in Google translator: instead of writing the translated German word first (*museum* or, as proposed by Giovanni, now *museen*) and obtaining the corresponding Italian translation, both Alberta (20) and Marta (21) decide on a different procedure: putting the Italian word *museo* first and looking for the German equivalent (Fig. 5). This is what they obtained:

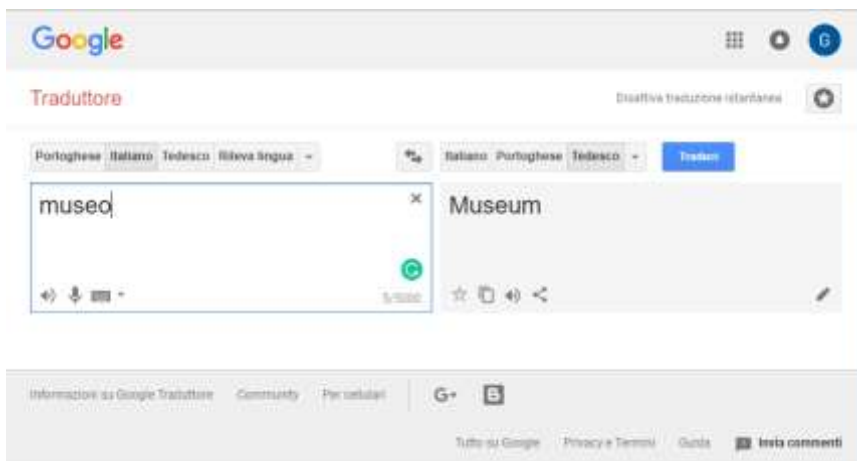


Fig. 5 – Typing “museo”

This is what resolves the apparent initial translation problem; Alberta and Marta are now confident that “museum” is the right German translation of the Italian word. They have settled the issue once for all (Marta “that’s all”, 24).

We have seen here one of the challenges posed by automatic translation programs. The practical way in which the template is used on the computer screen and the ways in which the program is explored are all issues which should be taken into consideration when we analyze translation solutions. The choice of the “right” word depends on the ability to concretely use and apply the material arrangement of the software. Here the procedure leading to the apparent solution of the translation problem has been collectively shared and the group decisions openly discussed, enabling us as researchers to see in real time what practical problems may have been envisaged, along with the problem-solving machine at work in a concrete situation of choice.

The problem has been apparently resolved, but, actually, there remains still a conundrum: why does *museen* appear upper left in the text? If *museum* is the right translation, why is there a different spelling?

4. How to deal with persistent problems

26 (.)

27 Gio e perché,
but why,

28 ((Giovanni points his finger at *museen* in the upper left screen. Marta again looks at the screen, Fig. 6))



Fig. 6 – Dealing with persistent problems

29 allora è sbagliato quello di prima=
so the first one is wrong=

30 ((Alberta returns to typing the page of on-screen text))

31 Alb =eh, è sbagliato,
eh, it's not correct

32 eh, non lo so, ma a me lo dà sempre diverso.
eh, I don't know, it always gives me another solution.

33 ((Giovanni points his finger at the word *Museen* in the upper part of screen))

34 ((Alberta shifts her legs nervously and for an instant looks sideways at Giovanni. Marta looks at the screen))

35 Alb non lo so.
I don't know

36 ((Alberta reads the text on the screen to herself in a low voice))

It seems that Giovanni, Alberta and Marta, even though they have used Google translator to check the translation and resolve their doubts, still remain perplexed. No

amount of checking has resolved the fact that in the upper left of the text there is this incomprehensible word “museen”. Faced with the objection by Giovanni (that the word “museen” must therefore be wrong, if the word “museum” is the right German translation – lines 27, 28, 29), Alberta’s answer explicitly addresses the fact that there is something inexplicable, suggesting that they might proceed without managing to resolve the problem.

It seems that, in order to deal with automatic translation software, users need an entire array of linguistic and practical competences, enabling them to ask the right question (typing in correctly in the right slot), to make sense of the results, and to navigate among different options. In the face of persistent difficulties, without this range of competences, users could be tempted to merely give up, without learning anything from the automatic translation.

The students in our situation did try another option.

5. *How finally the translation problem finds its solution*

37 ((Marta first moves her head closer to the screen. She then goes on to a different computer screen to Google Translator and types “museen”))



Fig. 7 – Solving the translation problem

38 Mar perché: è plurALE. ((looks at Giovanni, Fig. 7))
because it's plural.

39 ((Alberta looks at the screen from a distance))

40 Gio ah. ah, ho capito.
ah. ah, I understand.

41 Mar capito?
clear?

- 42 Gio musei. ah sì. (vedi un po')
Museums. Ah okay. (look at that)
- 43 ((Giovanni looks in the direction of screen 2 and opens his left hand, Alberta leans back in her chair and looks at the screen 1, Fig. 8))



Fig. 8 – Decreasing attention

- 44 Mar musei verdi.
green museums.
- 45 Alb ah sì. ((nodding))
Well.

After turning her gaze to the upper left part of the screen, as indicated by Giovanni, Marta turns to the computer screen in front of her and types the “strange” word in Google translator: “museen” (Fig. 9).

This is what she gets:

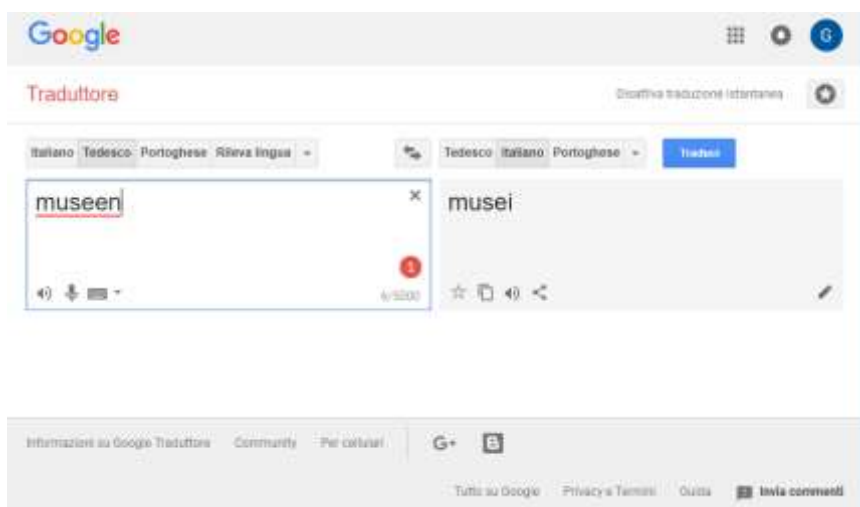


Fig. 9 – Typing “museen”

As soon as she gets the translation, Marta announces the results to her companions. This announcement solves all the previous problems: *museen* is the plural of the singular German noun “museum” (38, Fig. 7).

Giovanni begins to show signs of understanding (40 and 42), while Alberta directs her gaze towards her screen – reading the upper left part of the translated German text as a way of contextualizing the meaning of this plural noun, and attention dwindles (Fig. 8). It is now that Marta formulates a slightly wider context for the word, recalling the words in the original Italian text *musei verdi*, “green museums” (44), where the plural noun was used. At this point Alberta can also agree on the definitive solution to the translation problem (45).

We have seen that even a simple automatic translation of a single word can entail an array of interpretive procedures and skills needed to address a translation problem competently. In this particular, simple, case the solution was found in the broader context in which the single word appears. Instead of considering translation as a question of word-by-word rendering from one language to another, taking into consideration countable-noun-based flexion provides the context for distinguishing singular from plural.

4. Discussion

Through negotiation in a group of three pupils, we were in a position to observe process and negotiation, difficulties and tentative solutions, decision making and agreement, all in real time, in a real context, openly presented and overtly analyzed; from a purely cognitive perspective these processes and negotiation would be relegated to the inner processing of an individual mind.

We have seen how the simplest translation problem, concerning the translation of a single word from Italian to German using automatic translation software, was dealt with in a group. Multimodal actions were highly relevant for the negotiation processes leading to the solution of a translation problem. Through an array of multimodal resources (gazing; pointing; positioning in the space; handling objects like the mouse; shifting from one computer screen to another; shifting to one screen – the translated text – to another – the template of Google translator, etc.) it was possible to identify a focal point in the interaction and to share the same concern for the translation problem. We saw several actions bringing into the foreground something that was previously in the

background. Once the solution was found, actions shifted to the mid-ground and faded again into the background. The higher action is supported by a continuum of attention, but differently for every member of the group. Giovanni uses high modal complexity, interlinking different communicative modes. With his finger pointing at the screen, further supported by his forward posture, gaze and utterances, he expresses his full participation and his search for an answer to his question. The interplay of communicative modes signals high attention, which only diminishes when Marta has found the solution. The tension then dissolves. Alberta's participation primarily takes the form of the verbal mode and control of the computer screen through handling the mouse. Her utterances often finish with a lowering of the voice. The other modes, such as gaze, movement and change of posture reveal that her attention is not always high. Marta participates in the interaction a few lines later, when she looks at the screen after the pointing gesture by Giovanni. Prompted by the insistent behavior of Giovanni she looks at the text on the screen and then initiates another action; she tries to solve the problem herself (by typing the plural form of *Museum* into Google translate template). In emphatic fashion she communicates the solution to the translation problem and looks directly at Giovanni for confirmation that the problem has been solved. For her too, the verbal mode is prevalent but is supported by gaze and body posture.

5. Conclusion

Starting from a review of translation studies, and with particular reference to foreign language classes, with the use of electronic tools, we examined how a translation problem was identified, analyzed and then resolved, using a microanalytical and multimodal approach to study the relations within a group of learners, their bodily and physical positioning, the objects and tools used.

The study shows how the learners, through gestures, gaze, body movement and language, perceived a problem and then negotiated a solution in several attempts. Different modalities were used for this action, complementing each other and changing throughout the interaction. Particularly relevant in the sequence analyzed was the use of pointing gestures, which constituted the interaction in combination with other modalities:

Indeed, pointing gestures are not alone in directing another towards an object, but rather they form one part of a whole gamut of bodily activities - gaze, posture and so forth -

which both segments and is segmented by the emergent talk. (Hindmarsh & Heath 2000: 1875)

Pointing – together with gaze and turning the body towards the computer – generated an interaction focus that was condensed in the unclear word on the screen:

[] what is being indicated with a pointing gesture is not a simple place or space, but a complex semiotic object constituted through the mutual conjunction of multiple meaning-producing systems. (Goodwin 2003: 237)

As we have seen in the literature, dictionaries represent an important tool for translation. One of my concerns in this article has been to show how pupils concretely handle and utilize this resource in practice. Electronic dictionaries are now a wide-spread resource, but automatic translation offered by electronic dictionaries poses new challenges to users. Far from being a tool that can be used naively to get the right answer, these instruments require complex interpretive procedures and a certain degree of analytical skill. The ever-increasing presence of computers, smartphones, tablets, etc. in the classroom and an increase in their use in teaching programs, obliges us to examine the role of these electronic devices in the classroom and to study the ways in which they are actually used. This research shows that the computer is not only an important object but an integral part of face-to-face interaction in class (Nevile et al. 2014). In Giovanni's efforts to convince the other members to search for the solution to his problem, the computer is a fully-fledged partner, in an alliance with him and interconnected with the other communicative modes he uses (Gardner & Levy 2010: 2190). Knowing how to handle the electronic resource enables all the group members to share the problem, focus their attention and analyze different options, evaluate possible answers and, finally, find the solution. The study also makes it clear that integrating Google Translator and work on the computer in an interactive translation process, in a foreign language lesson (both verbal and embodied), enhances the communication level and the potential for learning in terms of negotiation processes; in particular, it can encourage the weaker learner or whoever has a lower ability in verbal expression. With a single case analysis, we were able to show mechanisms and processes that are specific to a certain occasion, but, at the same time, we managed to find important suggestions and directions, i.e. general observations, to pursue further research in different contexts and situations. This understanding of the nature of the social organization of translation processes as an emergent social phenomenon has a generic quality and can be applied to

the study of similar phenomena occurring in other areas related to foreign language acquisition.

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Kurzbiographie:

Sabine Hoffmann (Prof. Dr.) lehrt Deutsch als Fremdsprache, Deutsche Sprache und Übersetzung an der Universität Palermo. Nach dem Studium der Germanistik promovierte sie in DaF zum Thema Projektunterricht und habilitierte sich für Schulpädagogik mit dem Schwerpunkt Fremdsprachenforschung an der Philipps-Universität Marburg. Ihre Arbeitsschwerpunkte liegen im Bereich der Interaktions-, Motivations- sowie der videobasierten Unterrichtsforschung. In den letzten Jahren liegt ihr Interesse verstärkt auf mikroanalytischen Analyseverfahren. In diesem Rahmen steht auch der 2017 erschienene Sammelband: Götz Schwab, Sabine Hoffmann, Almut Schön (Hg.), *Interaktion im Fremdsprachenunterricht. Beiträge aus der empirischen Forschung*. LIT-Verlag.

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