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bilingualism and the analysis of talk at work: code-switching as a resource for the organization of action and interaction

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introduction

One major characteristic of bilingualism is the way that speakers deploy resources from what may be recognized as two different languages. The meanings of such code-switching, or the motivations of language alternation in bilingual talk, have been discussed within a variety of theoretical paradigms. Whereas the 'allocational' paradigm represented by Fishman's domain analysis sees social structure as determining language choices, the 'interactional' paradigm introduced by Gumperz sees these choices as a way of locally achieving a specific interactional order (Wei 2005: 376). Within the latter paradigm, conversation analysis (CA) takes a specific stance, stressing the importance of the situated moment-by-moment organization of interaction, of the intelligibility it has for the participants, and of the membership categories that are achieved and made relevant within the interaction itself. Within this framework, the sense of the plurilingual resources used by speakers can neither be mechanistically related to a set of predetermined factors, such as identities or social structures, nor associated to imputed intentions, strategies, goals of the participants. Instead, the questions asked (and answered through analyses of empirical data) are: how do participants orient to bilingual resources? which problems are solved by participants' procedures of exploiting bilingual resources? what intelligibility is given to these resources through the specific and local ways in which they are mobilized? what kind of 'procedural consequentiality' does the orientation have for the construction of identities, social categories or language diversity, i.e. what are the demonstrable consequences of this orientation and its manifestation in the specific sequential unfolding and organization of the interaction?

In this context, the sense of the difference produced by the use of plurilingual resources is dealt with as flexible and dynamic, depending on the interactional activities participants are engaged in. As Auer (2005: 405–6) suggests, this local perception and interpretation of code-switching can be either *discourse-related* (i.e. related to a functional differentiation and structuration of activities), or *participant-related* (i.e. oriented to the specific membership and competence of the co-participants and thus to issues such as identities and social relations; cf. Auer 1984 for the original formulation of this distinction). Even if it is difficult to disentangle these two aspects, code-switching need not be associated *a priori* with identity, ethnicity or social categories; it can achieve and display them in various ways under different circumstances and within different activities, but this has to be demonstrated by the analysis of the very way in which interaction gets organized. In this sense, what the conversational approach to bilingual talk produces is the embodied and situated sense of bilingual resources and practices produced by the participants (and not imposed by the researchers).

In what follows, we will adopt this analytic stance on bilingual talk-in-interaction in professional settings. We will show that bilingual resources can contribute to the specific shaping of an activity; this, in turn, can be seen as claiming/displaying particular ways of doing, and therefore as achieving or ascribing membership to locally relevant categories.

code-switching in professional talk-in-interaction

Code-switching in interaction has been widely studied in informal contexts, in ordinary conversations within families, peer groups or friends (see Auer 1998; Wei 2005). Although it has been studied in work contexts where minorities and immigrants were concerned (Day 1994; Heller et al. 1999), it has been much less considered in talk-in-interaction in institutional and professional contexts, for example where international experts are collaborating together. One reason seems to be that code-switching, and even more so, code-mixing, are thought to principally characterize informal contexts; on the contrary, formal contexts would tend to adopt, if any, more controlled forms of bilingualism (involving f.i. mediators such as bilingual chairmen, or (un)official interpreters). One consequence is that there is a very thin literature about the detailed analysis of bilingual interactional practices within expert work (with the exceptions of Firth 1990; Wagner 1998; Rasmussen and Wagner 2002; Skårup 2004; Mondada 2004a; Müller in prep.). The interest of studying the workplace in this perspective is that the issues involved in these interactions can be professional, institutional and organizational as well as ethnic or social: the relevance of each is a matter that is decided and displayed by the participants, thus showing us, as analysts, the range of issues code-switching can deal with.

At the same time, research on interaction in the workplace has emphasized the importance of multimodal resources for professional practice (see Luff, Hindmarsh and Heath 2000), looking at the way in which teams are coordinated, decisions are collectively taken, artefacts are jointly looked at, etc. But it has not studied the plurilingual resources which are involved as these workplaces become more and more decentralized, distributed among distant places, and involve the mobility of international professionals. In this context, the study of plurilingual practices at the workplace can reveal crucial resources related to the efficient management of professional activities. Thus, this chapter aims at observing the mobilization of bilingual resources in the workplace, viewing code-switching as a resource among others by which participants make accountable, recognizable and interpretable what they are doing in a complex work situation. A particular empirical case will be used as the base for our analysis: code-switching practices in talk at work during a surgical operation where the chief surgeon is simultaneously addressing his team, an international audience connected through videoconference from an amphitheatre, and a small group of experts providing advice and comments.

In this kind of complex interactional setting, code-switching is a resource *endogenously* defined and oriented to by the participants (versus its *exogenous* definition by the researchers), used by them to organize multiple activities and their participation frameworks in distinct, albeit embedded, and orderly ways. More generally, the observation of such a specific setting can shed some light on the contribution of code-switching practices to the organization and accomplishment of both interactional and institutional order. One issue addressed here will be the mutual embeddedness of these two orders, the interactional and the institutional: how does the former contribute to achieve the latter? how is the latter consequential for the organization of the former? how are they reflexively elaborated in the shape given to plurilingual interaction by the participants?

The perspective adopted here is an ethnomethodologically inspired conversation analytic stance (cf. Sacks 1984; Schegloff 1972, 1999) on code-switching (cf. Auer 1984; Cromdal 2001; Wei 2002): it articulates *sequential analysis* (see Drew 2003 and Heritage 1995 for brief introductions), which deals with the turn-by-turn organization of code-switching (Auer 1995), with *membership categorization analysis* (Sacks 1972; see Watson 1994 and Silverman 1998 for presentations), which deals with the categories made recognizably relevant by the speakers in their use of plurilingual resources and in the course of their actions. Key issues in conversation analysis to which this chapter will return include the local accomplishment of the orderliness of talk, of action and of social relations, and the participants' orientations to the detailed organization accomplishing that orderliness. This focus on the locally emergent order of interactions is based on the following insights:

- Talk, as action, is *temporally* organized. Taking time into account means taking into account the step-by-step way in which turns and actions progressively *emerge* within talk-in-interaction, as well as the contingencies that can appear at any moment of the unfolding of talk. Talk is shaped in an indexical, i.e. context-related way, progressively incorporating contextual elements made locally relevant by the participants.
- Talk as it unfolds in real time is organized through finely tuned pluri-linguistic and multimodal details (such as verbal cues, but also gestures, facial expressions, glances, body movements...) which cannot be *imagined* but only *observed* in naturally occurring social interactions.
- This detailed sequential order is constituted through the coordination of participants' practices and embodied interpretations, and therefore has to be considered from within the members' perspectives (and not by projecting on them an omniscient exogenous analyst's vision, external to the observed action).

The data we will analyse here show that participants orient toward the temporal and contingent character of their practices and toward the embeddedness of talk and embodied performance, and that this orientation is materialized in the very way in which they produce the order of these practices.

This conception of how interaction works entails a particular perspective on code-switching, showing how it works as a resource for the organization of bilingual talk-in-interaction:

- Code-switching is understood as an endogenous resource, i.e. a resource defined and shaped by the participants, that produces a specific order of interaction.
- This resource is mobilized by participants in temporally and sequentially relevant ways: the appropriateness of code-switching is adjusted to the contingent and emergent construction of the turn and of the sequence.
- Choosing code-switching instead of another possible resource for organizing a given practice confers a specific accountability or intelligibility to the activity and to its actors, and produces specific interactional and social positionings of the participants.
- Participants orient to this specific intelligibility of bilingual interaction produced by code-switching and reflexively adjust to it in the production of their next turns.

a specific context for the study of systematic practices

The data on which we will base our analysis were videotaped in the surgical department of a major French hospital. They document a complex activity

going on in the operating room: the chief surgeon and a team are operating on a patient, using a minimally intrusive technique consisting in inserting into the body, without opening it, an endoscopic camera and the necessary instruments. The endoscopic image is displayed on the monitors in the operating room and looked at by the surgeons while they operate; it is transmitted by a videoconferencing device to an amphitheatre where an audience of advanced trainees is witnessing the operation projected on a big screen. In the same amphitheatre, a group of experts is also following the operation, both advising the surgeon about possible alternatives to the procedure and making comments for the audience. Thus, the event analysed here is a complex one, articulating various types of activities (such as operating, demonstrating the operation, advising, teaching) and involving interactions among members of the team, including interactions between the surgeon and the trainees (who can ask questions through a microphone set on each of their tables), and between the surgeon and the experts (see Mondada 2003, 2004a, 2004b).

In such a situation, participants face a practical problem: how to distinguish and to articulate various juxtaposed courses of action and the participation frameworks related to them? While this problem could be solved by mobilizing different linguistic (prosodic, syntactic, lexical) resources, code-switching is one which sets up a recognizable contrast between segments of action, situating and categorizing them in various ways. As we will see, this resource organizes not only action, but also participation, and thus also the distinction among different participant statuses as well as among categories, membership and social relations.

The code-switching practices studied here involve two sets of linguistic resources, oriented to and identified by the participants as 'French' and 'English'; the latter is characterized by some speakers as an 'English lingua franca spoken with a French accent', as this excerpt shows:

(1) (tc27028V/K1/15'22)

1	MAU	donc: je vais essayer de: d'abord ()
		so: I will try to: first ()
2		(.) d'abord merci à charles
		(.) first thanks to charles
3	LEL	maurac, maurac, maurac,
4	MAU	oui,
		yes,
5	LEL	it's better if you sp[ea:k euh (1.0) <u>your</u>
6	MAU	[yes
7	LEL	international english [please,
8	aud	[(laugh[ter))
9	MAU	[okay
10	LEL	<u>very goo::d</u> english [(.) <okay, ((laughing))>
11	MAU	[(laughs))
12	MAU	thank you vo- for your invitation charles
13	LEL	hh hhh

14 MAU and euh: (.) i performed this morning (.) euh extraperitoneal
 15 approach (.) of (.) adrenalectomy, ((continues))

Lines 1–2 constitute Maurac's first videotransmitted turn at the beginning of his operation. His opening turn, in French, thanks the coordinator of the event, Charles Lelac, and projects more to come. However, Lelac, in a rush-through (Schegloff 1982: 76), produces a summons (3) (cf. Schegloff 1972), answered to by the recipient (4), and introduces a request repairing the linguistic choice Maurac has just made (5, 7). French is not nominated as such, but English is categorized in an expanded sequence, first formulated as 'your international english' (5–7) where 'English' is modified by the adjective 'international', itself prefaced by a possessive pronoun, indicating the particularity of that variety. This first formulation is received with some laughter; Lelac joins them in his turn's continuation, done with an ironic assessment ('very good english' 10). Thus, participants orient to the fact that the event is going on in this kind of non-native English (and to which I will refer henceforth with the simplified gloss 'English'). French is not presented in a symmetric way as an available resource; this asymmetry shows an orientation of the participants to an 'official' stream of action, defined by English. As we will see, this does not exclude other streams of action and does not predefine the way in which activities in English will empirically and indexically be accomplished as such. As a result of this sequence, Maurac repairs his first turn, thanking Charles Lelac again and continuing in English.

However, English is not the only resource used, as the following excerpt shows, taken from another operation:

(2) (tc28038/k1d1/9')

1 BER .h what is surprising, (0.5) is that (0.4) this part (0.5)
 2 was not infiltrated, (1.0) by local anaesthetics.
 3 (10.0)
 4 BER prends, lache ça. ça sert à rien. .h prends ça.
take, let this. this is not helping for anything. .h take this.
 5 (0.7)
 6 BER ouais.
 7 yeah.
 7 (1.8)
 8 WIL are there any questions from budapest?
 9 (1.3)
 10 AUD eh ya we have eh one questions. (.) .h how can you
 11 deci:de (.) eh: (0.6) that you perform that laparoscopically,
 12 or this technique,
 13 (1.4)
 14 BER tsk .h (0.6) yes (1.0) yes. .hhh i no longer use
 15 laparoscopy for hernia. (1.0) because i prefer local
 16 anaesthesia in (.) all the cases. (0.9) °une kellie, ()°
 °a retractor ()°
 17 pat °()°
 18 BER ça va, vous n'avez pas mal?
is that okay, aren't you feeling bad?

19 pat non ()
no

20 BER qu'est-ce qu'i dit?
what is he saying?

21 ass qu'est-ce que vous dites monsieur marouani?
what are you saying mister marouani?

22 pat ()

23 ass ah mais ça c'est le tensiomètre là, on vous prend la [tension
oh but that's the tensiometer there, we are taking your [pressure

24 BER [ah oui.
[oh yes.

25 (0.5)

26 BER °okay°. .hh eh i use eh local anaesthesia in all the cases,
27 (0.7) and, according to the type of hernia, (0.5) i choose a
28 technique. (0.8) in about (.) eh e:ighty percent cases (0.7)
29 it's a plug, (0.9) and in other cases, c'est pas bien là.
it's not good there.

30 (1.6)

31 it's eh: . Lichtenstein procedure,

The participation and activity frameworks of the broadcasted explanation and of the team's work are observably distinguished in the recorded event; they are *made hearable* in their differences. This distinction can be changed in the course of the action and is not just signalled or indexed, but indeed *accomplished* by the organization of participants' talk, in which code-switching, among other resources, is mobilized. Thus, it achieves a constant re-elaboration of the context by the participants themselves, in what Peter Auer calls 'discourse-related' code-switching, defined as a contextualization cue indicating a shift in any feature of the context such as footing, activity type, or topic, and indicating the way in which complex turns are structured (see Auer 1984, 1995). In our data, code-switching is used to contextualize different streams of action addressed to different recipients.

In excerpt (2), above, multiple participants and activities are intertwined: the chief surgeon, Dr Bertin, is both dissecting and explaining what he is doing in English (1–2), but he is also giving instructions to his assistant in French and in a lower voice (4–6). The expert, Dr Wilson, works as a chairman offering a distant audience from Budapest the chance to ask questions (8), an opening which is indeed taken up by a trainee (10–12). The question gets an answer (14–16), which ends with a request for an instrument to the assistant (16), followed by a side sequence with the patient (17–24) in French. The answer to the question is continued with a partial repetition in line 26, and the explanations goes on, with other possible insertions of instructions and evaluations (29) to the team.

Thus, this situation is characterized by:

- Multiple streams of action ('multi-activity'), either successive or simultaneous. These courses of action have to be organized by participants in a recognizable way; they also have to be organized in

an adequately timed way, so that the temporality of the operation is correctly embedded in the temporality of the talk-in-interaction.

- A complex sequential organization, where multiple inserted sequences are often intertwined. Code-switching contributes to the recognizable delimitation of sequences (such as first and second parts of adjacency pairs, side sequences and other insertions) and to the recognizability of specific units or chunks within the turn (such as the instructions to the team, which are often embedded in it without being separated by any pause, although they can be prosodically marked by lower and faster voices). Turn constructional units (TCUs, cf. Selting 2000), which compose the turn, are dealt with both retrospectively and prospectively, within a constant orientation toward the accountability of what has been done, and the projection of the next action, which can either be a step in the surgical procedure or a next turn or unit in talk-in-interaction.
- Multiple linguistic resources, which are relevantly placed within the sequential unfolding of turns-at-talk, in a methodical and systematic way. Code-switching is managed by participants in order to constantly answer (members') questions: 'why that now?' and 'what's next?' (Schegloff and Sacks 1973).
- Multimodal and visual resources, such as the organization of the operating field, the organization of the video perspective on it, the use of the instruments, constituting, through participants' actions, changing 'contextual configurations' (Goodwin 2000: 1490), i.e. a range of semiotic fields shaped by the participants' mobilization, through gestures, of various medias, artefacts, material objects.

the surgeon's delimitation of participation framework

If we look a little more in detail at the systematic ways in which French code-switched elements are inserted in English explanations, we see three different possibilities: we will present a short *set* of examples for each of them, that is a set of occurrences characterized by the same sequential environment. They show that the discontinuity represented by the insertion of a code-switched element can be dealt with either as not affecting the ongoing talk or as more or less seriously perturbing it. This in turn reveals the ways in which bilingual resources can be used in order to structure activity.

A **first set of cases** shows a minimization of the discontinuity expressed by the code-switching:

(3) (TC27028K1d1/36'30/montreAgauche/e10TO)

- | | | |
|---|-----|--|
| 1 | LEL | we cut here (0.8) the: (.) superior pellicule, |
| 2 | WIL | °beautiful° |
| 3 | LEL | here too (0.6) and euh (.) when that |

4 is done, (0.4) after that we know that
 5 montre à gauche (.) on the: ri*ght side,*
 show to the right
 ass *CAMERA MOVES TO LEFT*
 6 LEL we have no problem, and the dissection
 7 will be very very easy,

(4) (TC27028K1d1/35'26/mDiaphr/e9TO)

1 LEL and we have dissected (0.5)
 2 montre-moi *mieux. non, plus *là-bas,
 show me *better. no, more there,
 ass *CAM IS ADJUSTED-----*ZOOM-->
 3 *the (0.6) superior* artery,
 ass ---->*

Here, code-switching signals transitions in the activity and in the participation framework. These changes are organized not by an *a priori* association between activities and codes, but by the constraints and projections of each stretch of talk and element of action.

More particularly, in all these cases:

- the explanation is going on in English; it is suspended, often *not* at a turn constructional unit (TCU) boundary;
- a segment in French is inserted by the same speaker;
- after the insertion, the previous ongoing talk is continued from the point at which it was suspended.

In some cases, there is a pause before and/or after the insertion, but in others no gap is observable. We can notice that the temporal unfolding of the explanation is shaped by the activity of operating (as it is observable in excerpt 3, lines 1–4; after this first stretch, there are fewer pauses, since the operation is suspended and the explanation is the only activity going on). In all the cases, the insertion is done at a point of the ongoing turn where more is projected to come, either syntactically or prosodically. This next projected element is provided after the insertion, as a continuation of the previous segment, without any hitches, hesitations or repetitions. Thus, a minimization of the discontinuity represented by the insertion is displayed.

Although the insertion is done in a way that allows it to recognizably initiate another action and to be addressed to another participant than the previous talk, what it accomplishes is an action that makes possible the very next step of the ongoing explanation. The insertion is an instruction given to the team in order to accomplish a necessary condition for the next action. It is answered as such by an action of the assistant (who for example adjusts the endoscopic camera to make an anatomical detail visible; this movement can even be repaired, as in excerpt 4): the insertion represents a sequence of paired actions (instruction / instructed action). In this sense, French insertions

turn (as 'so' at the beginning of line 1, excerpt 8), which is no longer relevant. By this repetition, the speaker displays an orientation to the insertion as a discontinuity possibly making problematic the retrospective relation with the beginning of the segment.

We can note that the insertion is not always limited to a request, as in the previous cases, but can concern longer sequences, as in excerpt (2) above: in that case, the insertion initially concerns a request submitted to the team. But immediately after, another insertion is accomplished, with a question to the patient, whose answer is not heard by the surgeon: thus he initiates a repair of his understanding in the next turn. This produces another adjacency pair – another question/answer (lines 21–22) – between the assistant repeating the question and the patient answering with another question, answered in turn by the assistant. The surgeon displays an understanding of the exchange, and the second insertion is therefore closed by a return to the initial suspended segment.

Insertions are therefore dealt with as possibly perturbing (or not) the sequential continuity of the ongoing action. Their perturbing potential is displayed by the turn format adopted by the speaker, namely by the way in which the turn is continued after the French code-switch.

In a third set of cases, the most extreme one, the insertion is followed by its own topical development, in which a retrospective account describing what just happened is provided, and *not* by the continuation of the previous suspended talk, which is abandoned.

(9) (k2d1/28'10/prblFat/e14TO)

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1  aud  do you use euh (.) coagulation or section, or
2      aren't you afraid ehm to use monopolar coagulation.
3  REV  °°(non c'est pas ça)°°
4  ass  °°t'as entendu,°°
5  REV  no we have the habit to: .h to use euh .hh a monopolar
6      coagulation, (0.4) for this kind of dissection, (0.6)
7      but in f- in fact i thin- <attend(ez) attends
           <wait wait
8      y a tout bouge, ((faster))> y a tout qui bouge,
           there is all moving ((faster)) there is all moving,
9  ass  °c'est la graisse qui revient°
           °that's the fat which comes back°
10 REV  ouais. (.) c'est la graisse qui revient. .h so you see the
           yeah, (.) °that's the fat which comes back.
11      problem, euh:: sometimes we have to: (.) to (er)begin, (.)
12      the dispo(d)ition (.) in order to have a good vision, hh (.)
13      and so it's not very easy. (0.4) SO:, (0.3) .h no problem,
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In this case, a question from the audience receives an answer after a brief insertion (3), the placement of which, just after a first pair part (the question), is noticed by the assistant orienting to the relevance of a second pair part

(the answer) in this position (4). This answer is progressively abandoned, first perturbed and delayed, and then replaced by a switch to French dealing with an unexpected sudden event, the drastic modification of the anatomical space by the incursion of fat (which had been kept aside by a plier) into the surgical theatre, which renders the operation impossible.

In this case, the unexpected event is first dealt with by an insertion in French by Daccard. Second, this insertion is expanded by an adjacency pair initiated by the assistant and responded to by the surgeon (lines 9–10). Third, a retrospective comment in English describes and theorizes what just happened, and in a way normalizes it (going from ‘you see the problem’ to ‘no problem’). Here, the segment in English does not continue the previous explanatory talk but is tied to what has been managed in French: the communication internal to the team is dealt with as publicly displayed, as manifesting a possible problematic moment, which has to be renormalized for the audience. In this sense, what happens in French and in English are two activities which reflexively configure each other’s intelligibility. The explanation in English retrospectively elaborates and reshapes not only what has been said in French, but also what happened in the body.

In the three sets discussed so far, the surgeon deals with the situation by separating two types of activities (explaining or describing his action and instructing or requesting something), as well as two types of recipients (the audience and his team). By code-switching, he organizes his engagement in different streams of action, differentiating them in a clear and parsimonious way. However, these courses of action are permeable in various respects: the team’s actions accomplish prospectively the condition for the next surgical or explicative step, and are therefore sequentially related; in addition, their actions are available for public scrutiny thanks to the video transmission, and in certain cases are further re-elaborated by a retrospective account.

the expert’s reconfiguration of the operating space

The differentiation of the team and the audience is not only a matter of participation framework; it is also a matter of geographical space, strengthening the spatial division between the operating room and the amphitheatre. It is a way of making intelligible the articulation between two social and material spaces, one dedicated to the operation and the other one dedicated to teaching. For instance, audience members’ questions are never asked in French. This distinction, however, is relativized by two considerations: first, it is constantly locally (re)accomplished, maintained by subsequent code-switches in specific sequential positions; second, it is contingent upon the way in which participants organize their action, and not determined by the geography of the setting.

It is interesting to look at the way in which the expert enters in this configuration: the very category of ‘expert’ is itself a phenomenon constituted

through the organization of the activity that has to be reconstructed on the basis of the participants' orientations. In fact, the expert is himself a 'surgeon', and therefore a potential 'colleague' of the operating surgeon; he is also often someone who has done an operation just before and who has subsequently joined the expert's panel in the amphitheatre. These multiple possible categories show that, although separated geographically from the operating room, the colleague could be considered as part of it. Therefore, from the perspective of a Membership Categorization Analysis (as introduced by Sacks 1972), the question concerns the methods by which one of these categories is made relevant, as well as the way in which the expert makes his action understandable and recognizable as the action of an 'expert', a 'surgeon', a 'colleague' or even a 'member of the surgical team'.

If we consider self-selections by the expert and actions initiated by him, we see that they mobilize very different turn formats. Due to space constraints, we will mention only a few of them, relevant for the code-switching issues which concern us here.

A first format is shown by the following cases:

(10) (k2d1/30'30/liverRetractor)

1 REV °zoom avant°
°zoom forth°
2 SED yves,
3 REV yes,
4 SED don't you think the liver retractor could be (.)
5 a little more to the left, so that it can help you,
6 REV yes, yes, yes (.) [maybe]

(11) (k2d1/34'25/space)

1 (1)
2 SED yves,
3 REV yes
4 SED you open the spain- euh the space between spleen and
5 left cro[ss right,
6 REV [yes, i have not so lot of choice,

(12) (30'27balloon)

1 (14)
2 SED euh pierre-alexan:d[re,
3 DAC [yes,
4 SED is the balloon deflated now,
5 DAC yes
6 SED okay.
7 (15)

This set of brief excerpts shows a method used by the expert to re-engage within the course of action: a summons-answer adjacency pair (Schegloff 1972) followed by a first pair part initiated by the expert, generally a question.

The summons–answer pair was first described by Schegloff (1972) as taking place at the very beginning of telephone conversations (corresponding the former to the ring and the latter to the ‘hello?’) in order to check the mutual availability of participants. Here the summons–answer occurs in the middle of the operation, securing the re-engagement of a distant participant after a lapse during which he was not the primary addressee of the surgeon (cf. Mondada in press). In this case, both the summons–answer sequence and the question are in English. In asking his question, the expert is both ‘doing being the expert’ and engaging in didactic questions for the audience.

A very different format can be adopted by the expert, as in the following case. The surgeon, Daccard, has just accepted, after some discussion, to change his instrument and to adopt a bipolar hook he generally does not use. The excerpt begins as Daccard shows in a visible way, both in the visual field and with the initial announcement (1), that he is going to use it.

(13) (TC11068/K1D1/40’11bip)

- 1 DAC okay (.) euh: i- i use the bipolar,
2 (3.2)
- 3 SED i think it is the first time i see
4 *you* using this instrument,
5 DER (([laughs]))
- 6 DAC [yes,
7 (2.7)
- 8 DAC °() (quand même) ()°
(*nevertheless*)
9 (1.9)
- 10 LEL ah i faut serrer *très* peu avec la nôtre là
oh you have to clasp very little with our one there
- 11 pierre-alain hein,
pierre-alain haven't you
12 (0.4)
- 13 LEL ouais. il faut un petit espace,
yeah. you need a small space,
14 (1.1)
- 15 DAC j'ai un petit espace
i have a small space
- 16 LEL parfait.
perfect.
17 (1.2)
- 18 DAC mais euh j'ai rien quand même
but ehm i don't get anything anyway
- 19 LEL ah mais i faut l'courant aussi,
oh but you need some juice too,
- 20 SED he he he[he he °he° (.) .hhh
21 LEL [.hh
22 (4.0)
- 23 DAC vous êtes d'accord avec ce que j'fais là?
do you agree with what I'm doing here?
- 24 SED c'est *beau*,
it's great,
- 25 LEL? .hh hh h

26 (12.1)
 27 DAC i i i think it is interesting to:
 28 (2.1)
 29 DAC °() (de plus en plus ça) (.) doucement°
 °() (more and more this) (.) slowly°
 30 (1.8)
 31 SED you see pierre-alain. it WORKs,
 32 DAC yes it works.
 33 (0.8)
 34 DAC no no i think it's it's very interesting
 35 because euh (.) in fact you can see here what you
 36 have to euh do euh, (.) euh when you have a local
 37 haemorrhage, and ((continues))

After Daccard's announcement (1), the first expert, Sedaine, makes an assessment (3–4) dealing with his manipulation of the instrument as exceptional. This assessment is received with some laughter by Daccard's assistant, and with a 'yes' by himself (6). But, after a pause, a unintelligible comment in French follows: the switch and the lower voice signal the emergence of a problem to be addressed in the team's space of action. After a short pause, the other expert, Lelac, gives a first suggestion (10–11) stating a condition which is positively embodied in Daccard's modified action during the short pause (12); this is further expanded by Lelac in the next turn (13), and confirmed again by Daccard (15) and his adjusted action. Again an assessment is produced closing the sequence (16). Nevertheless, the problem persists (18) provoking another suggestion (19), which is accompanied by laughter from both experts (20–21). This time the instrument is successfully used by Daccard who closes the sequence by checking the agreement of both experts. This is responded to by Sedaine's assessment (24) and Lelac's laughter. The sequence being closed in French, Daccard switches into English to initiate an evaluation of the procedure (27). This is suspended, by a type of inserted instruction in French we analysed above (29), and by an inserted sequence in English (31–32), but it is then restarted.

Various observations can be made here:

- Both experts self-select in order to give suggestions to the surgeon at a difficult moment: they do that in French and by engaging immediately in the (inter)action without any summons–answer sequence.
- Lelac's instructions to the operating surgeon are followed by him in a visible way, step by step, and evaluated as such.
- In this context, Lelac displays not only his expertise but also a familiarity with the instrument used (referred to with the possessive pronoun 'la nôtre' / 'ours' 10). In this way, he situates himself as a 'co-member of the team', even as the 'authority of the team', more than as an 'external expert'.

- Laughter and hyperbolic assessments (24) display an ironic responsiveness to Daccard's invitation to agree with him, and contributes to the familiarity and informality of this insert in French.

This expanded insertion in French is closed by the participants returning to English and by Daccard continuing his demonstration and providing a retrospective summary (this refers back to a problem preceding the inserted sequence, which is not commented upon and, in this way, ignored from the perspective of the official course of action in English). Code-switching is used here as a resource contributing to structuring the various activities and their hierarchical embeddedness, in which the experts are engaging as team members more than as audience members.

In other cases, as in the last excerpt, this order can be blurred by an emergency or a persistent difficulty disrupting the course of the demonstration, which is abandoned (cf. above, excerpt 9). In this case, the expert can differentiate his interventions, which can recognizably be produced as a 'colleague's' suggestion aligning with the emerging difficulty or as an 'expert's' didactic question (at the end):

(14) (TC11068k3/20'02difficulty/e18TO)

- 1 DAC °j'crois qu'y a un problème là.°
°i think there's a problem here.°
- 2 (5.1)
- 3 DAC attends y a quelqu'chose qui va pas. (0.4) pousse-la,
wait there's something wrong. (0.4) push it,
- 4 (0.6)
- 5 DAC .hhh euh re- re repoussez un petit peu le: l:- l'anneau,
.hhh euh push the th- the ring a little bit ag- again
- 6 (0.6)
- 7 DAC push: push the nasogastric tube please.
- 8 (1.2)
- 9 slowly,
- 10 (2.4)
- 11 okay, (.) push,
- 12 (2.5)
- 13 DAC ça va pas? (1.3) vous n'y arrivez pas?
doesn't it work? (1.3) don't you succeed?
- 14 (5.3)
- 15 SED euh pierre-alain,
- 16 DAC yes,
- 17 SED could you comment on the difficulty you have now?
- 18 DAC YES eh (.) <oké oké, c'est bon, c'est bon, ((faster))> (0.4)
<oké oké, it's right, it's righ, ((faster))>
- 19 .h main- maintenant vous commencez à tirer s-
.h no- now begin to pull on-
- 20 (1.2)
- 21 DAC ouih (.) doucement
yeahh (.) slowly
- 22 (0.6)

23 DAC voilà, oké. you see here the bulge, (0.8) i can't see
here it is, okay.
 24 the bulge until now.
 25 (1.3)
 26 DAC continuez,
go on,
 27 (2.2)
 28 continuez, tirez encore, (0.5) tirez encore,
go on, pull again, (0.5) pull again,
 29 (6.3)
 30 DAC ouais mais vous n'passez pas l'anneau. (0.4) my problem is that-
yeah but you don't pass the ring. (0.4)
 31 (1.4)
 32 SED tu dois ouvrir l'anneau complètement hein
you have to open the ring completely don't you
 33 (2.0)
 34 DAC non i passe pas. (2.1) on passe pas, il est trop-
no it doesn't go through. (2.1) it doesn't go through, it is too-
 35 (1.7)
 36 voilà (.) tirez bien, (0.5) tirez, (0.3) o:ké. (.) ça y est.
here we are (.) pull well, (0.5) pull, (0.3) o:kay. (.) that's it.
 37 SED you see how he is obliged to stretch (0.3) the stomach
 38 to: to put the banding.
 39 (13)

This fragment is extracted from a decisive phase of the operation, in which a ring has to be put around the stomach in order to reduce its volume. The operating surgeon, Daccard, notices a problem (1) and solves it (36). The way in which this is interactionally managed constitutes its accountability as a 'difficulty': (a) this category is *explicitly named* (Daccard speaks of 'problème' 1, and the expert, Sedaine, of 'difficulty' 17), and (b) these categories are *displayed* by the disrupted coordination of the multi-activities at hand. Although the problem is initially noticed and dealt with in French with the team, instructions in English are given just afterwards (7, 9, 11), dissolving the distinction between doing the operation and demonstrating it. Moreover, explanations are initiated in English but not continued or suspended (as in lines 18 or 30).

In this sequence, the expert self-selects for accomplishing very different actions:

- The first time (15), he re-engages in English with a summons–answer pair, followed by a request for an explanation. This request is acknowledged by Daccard, but not realized, the temporality and organization of the operation taking precedence over the demonstration.
- The second time (32), Sedaine self-selects in French, without any pre-*sequence*, and gives a suggestion to Daccard, who has just abandoned a fragment of explanation.

- At the end of the excerpt (37), Sedaine self-selects again in English and addresses the audience: he doesn't speak *to* Daccard anymore, but speaks *about* him (with a third person pronoun).

In this way, Sedaine methodically adopts different positions within the activity, oriented to different recipients. In a very local way, he switches from one participation space to another, performing different kinds of actions: as chairman securing the continuity of the demonstration, as colleague and co-member of the team, and as teacher providing comments on what happens in the absence of the surgeon's explanation.

shaping the flexible interactional and institutional orders

The empirical data examined here show a specific *and* systematic use of code-switching as an organizational resource in a complex work setting. Even though English as a lingua franca is presented and dealt with as the official language of the event being broadcasted, French is another resource contributing to the intelligibility of the organization of talk and action in a context of multi-activity. We tried to show that the distribution of these plurilingual resources is not mechanical (not determined by fixed *a priori* factors) but methodical (in the sense of Garfinkel 1967: accomplished by systematic members' procedures). Participants orient to the relevant use of code-switching and reflexively constitute its relevance by choosing specific sequential positions and by shaping specific regimes of accountability of what is going on. This opens up the possibility of reconfigurations of participation frameworks, category-bounded activities and delimitations of recognizable groups. In this sense, local and contingent uses of code-switching accomplish a flexible geography of action and of social relations.

More specifically, code-switching has configuring effects on various levels:

- It contributes to the recognizability of the organization of turns and sequences, especially in environments where frequent insertions and expansions are observable. In this sense, code-switching makes observable the way in which participants orient to the questions 'why that now?' and 'what's next?' in the production and interpretation of their ongoing practice, thereby contributing to fundamental features of turn and sequence construction.
- It contributes to the recognizability of multi-activities, distinguishing between various streams of action: more particularly, activities such as operating have an order which does not necessarily converge with the order of talk-in-interaction. The latter is nevertheless intertwined with the organization of the former, incorporating its contingencies and constraints as configuring dimensions producing the intelligibility of the ongoing talk.

- It contributes to multiple recognizable orientations to recipients and to participation frameworks. It achieves the way in which participants themselves shape, distribute and reconfigure relevant categorization devices, by orienting to the speakers in terms of paired categories, such as 'evaluating expert' / 'operating surgeon' or 'colleague' / 'colleague', 'chief surgeon' / 'assistant', 'expert' / 'trainee'). Moreover, these orientations build groups, alliances, hierarchical positions and (a)symmetries through the ways in which either they align, assemble and unify the participants so categorized or oppose, distance and rank them. Being dynamic, these orientations, embedded into the organization of talk, of action and of interaction, provide resources for drawing or displacing boundaries, for reinforcing straightforward categorizations or for reconfiguring them.
- It contributes to making visible and intelligible the institutional order in which the action is going on, by defining its public dimension, by categorizing events as 'officially broadcast', 'submitted to public scrutiny' or 'concerning restricted areas and persons'.

In this sense, code-switching contributes to our understanding of the active and creative use of local resources for the organization of action. The interactional approach of code-switching and bilingual talk emphasizes the embodied and situated sense of plurilingual resources and practices as they are dynamically shaped by the participants themselves in the course of their interactions.

In this chapter, we emphasized a perspective dealing with code-switching as an endogenous flexible resource for constituting the interactional order. This perspective shows that code-switching is not the manifestation of bilingual identities neither in an *a priori*, generic nor a mechanical way: code-switching exhibits efficient situated and contingent capabilities of simultaneously organizing action, configuring context, and doing categorial positionings of participants. In the workplace, this shows that code-switching can be a powerful resource for building the order of work activities; this order is achieved by specific ways of doing, that are locally anchored in the participants' identities and at the same time elaborate them.

transcript conventions

Data were transcribed according to conventions developed by Gail Jefferson and commonly used in Conversation Analysis.

[overlapping talk
=	latching
(.)	micro pause
(0.6)	timed pause
:	extension of the sound or the syllable it follows

.	stopping fall in tone
,	continuing intonation
?	rising inflection
<u>mine</u>	emphasis
°uh°	quieter fragment than its surrounding talk
.h	aspiration
h	out breath
((sniff))	described phenomena
< >	delimitation of described phenomena
()	string of talk for which no hearing could be achieved

An indicative translation is provided line per line (in italics), in order to help reading the original.

Descriptions of gestures and actions are transcribed according to the following conventions (cf. Mondada 2003):

* *	a gesture is delimited between two symbols and synchronized with corresponding stretches of talk
cam	the participant making the movement is identified in the margin if (s)he is not the same person as the actual speaker
ZOOM	gestures and movements are described in small capitals
-----	the gesture is held until the next closing boundary symbol
---->	the gesture is held until the next symbol, situated on the following line
....	gesture preparation
,,,,,	gesture retraction

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