Becoming a co-operating pair: Blind trainees learning to interact with their guide-dogs

# Becoming a cooperating pair: blind trainees learning to interact with their guide-dogs

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## Abstract

### Background

There is a lack of studies investigating how visually impaired members are trained in interacting with their guide-dogs during urban mobility. This is a perspicuous setting for the investigation of the praxeological organization of visual impairment in everyday activities.

### Method

This study analyses videorecorded training sessions in French in which trainers accompany blind people and their newly assigned guide-dogs in urban mobility exercises. The study adopts multimodal conversation analysis to investigate the organization of teaching/learning how to use vocal and non-vocal resources to interact with guide-dogs in specific ways for the practical purposes of prompting them to provide navigation assistance, rewarding them for doing a previous task correctly, and correcting them when not responding appropriately.

### Results

Multimodal resources are differentially employed to implement distinct social actions: verbal cues are favored to get the dog to provide navigation assistance; touching is employed in combination with vocal resources to either reward the dog or correct his/her conduct. Two instructional configurations are identified: (1) the trainer instructs the trainee about *what to tell the dog to do next* by incorporating a verbal cue to be addressed to the dog; (2) the trainer instructs the trainee about *what to do next to/with the dog*.

### Discussion/Conclusion

The pedagogical importance given to using vocal and embodied resources in specific ways for interacting with the guide-dog configures the latter as a participant to, and recipient of, social actions entailing both practical and affective aspects rather than as a mere aid to mobility.

Keywords: guide-dogs; instructions; animal participation; mobility; multimodal resources; embodied action; conversation analysis

## 1 Introduction

Many blind persons rely on a guide-dog for daily mobility. Guide-dogs are service dogs specifically trained to provide mobility assistance, and their blind prospective owners are also trained to interact with them safely and efficiently. This article addresses the theme of the special issue "The practical and interactional accomplishment of living with visual impairment" by exploring the instructional practices through which blind members become skilled in addressing and interacting with their guide-dogs.

Within EMCA, interspecies interactions involving guide-dogs and blind persons are receiving increasing attention (Due, 2021; Due & Lange, 2018; Mondémé, 2019; 2024). Studies in this area have proposed to consider guide-dogs as *semiotic agents* capable of *distributed perception* (Due, 2021) within *zootechnical agencements* (Doré & Michalon, 2016) that include the blind person and tools (i.e., harness and leash). The constitution of a "shared intelligibility" between the guide-dog and its guardian have been investigated (Mondémé, 2014; 2024), as well as the instructional role played by tactile contacts in interspecies communication (Mondémé, 2020). However, the interactional practices employed by blind people to address their guide-dogs have not been scrutinized systematically, i.e., with reference to their recurrent sequential and practical contexts. This study explores the 'constitution' of the blind-dog pair in a pedagogical setting focused on learning how to address the guide-dog using verbal and embodied resources appropriately.

The study analyses videorecorded data from training sessions in French in which specialized trainers accompany blind trainees during outdoor and indoor mobility with their newly assigned guide-dogs. Besides documenting how blind participants navigate urban spaces with their guide-dogs, these data show participants engaged in the institutional and pedagogical business of learning to interact with a new non-human partner. This entails learning when (i.e., sequentially) and how (i.e., using what resources) to instruct, reward, and correct the guide-dog. These three activities are crucial for daily mobility, and overall, for future cooperation between the blind participants and their newly assigned guide-dogs. Our analysis focuses on sequences in which the trainer instructs the blind trainee on how to accomplish each of these activities and the trainee addresses their guide-dog with the relevant action. Two instructional configurations are identified: one in which the blind trainee is prompted to address the dog with a verbal cue; the other, in which the trainee is also prompted to interact with the dog with an embodied action.

The results of the analysis show that vocal and tactile resources are used to deliver rather different actions to the guide-dog. Vocal resources are primarily employed to get the dog accomplish a subsequent navigation-assistance task such as crossing a street and heading for a door or a sidewalk; tactile resources are employed, in combination with vocal resources, to reward the dog (e.g., by stroking its head) and to correct their conduct (e.g., by pulling the leash or harness). In the discussion, it is proposed that such differentiation of resources, namely the preference for eliciting the guide-dog's cooperation vocally rather than by resorting to physical contact when instructing

navigation-assistance tasks, configures the guide-dog as a participant to, and recipient of, social actions that entail both practical and affective aspects.

## 2 Background

Recent years have witnessed an increasing interest in exploring the practices employed by visually impaired members to navigate built spaces that are designed assuming seeing persons as default users. For instance, previous studies have explored how visually impaired pedestrians navigate urban spaces using the white cane (Relieu, 1994) or with a guide-dog (Due & Lange, 2018; Mondémé, 2014**);** experience museum exhibitions through tactile and vocal guidance (Kreplak & Mondémé, 2014; Ticca & Ursi, 2019); and perform paraclimbing with the assistance of a sight-guide (Simone & Galatolo, 2021, 2022, 2023 a, b). However, only a few studies have addressed the issue of how visually impaired members become skilled in using navigational and mobility assistance available to them (Minami et al., 2023). The aim of this article is to reconstruct practices through which blind trainees are instructed to interact with their future guide-dogs.

The analysis draws on an EMCA-informed understanding of instructed social activities as being organized from the pair *instruction* and *instructed action* (Garfinkel, 2002). In CA literature, instructions are treated in the same way as requests and directives, that is, as actions "designed to get someone else *to do something*" (M.H. Goodwin, 1990:67; emphasis added). As such, instructions occur routinely as 'first' pair-parts in a sequence where the expected 'second' pair-part is the complying action. Both actions can be accomplished by participants using a variety of resources that include talk and embodied action (Mondada, 2014; Stukenbrock, 2014; Deppermann, 2018). The multimodality of instruction sequences has been explored with reference to a variety of teaching and training settings and especially with reference to instructed mobile activities, which is also the case with blind pedestrians training with guide-dogs. In these settings, following the instructions is typically implemented through embodied actions. For instance, in car driving lessons, while trainers mostly use vocal resources to produce and deliver instructions to the trainees, the latter are seen to follow the instructions by operating car controls to achieve the expected outcomes (e.g., slow down, turn at an intersection, etc.) (De Stefani & Gazin, 2014).

The data analyzed in the present article show a different *participation framework* (Goffman, 1981), in which to the trainer-trainee dyad an animal participant (the guide-dog) is added, who is instructed in turn. As a result, the distributed accomplishment of navigational tasks entails a different sequential organization than in learning to drive a car or to use a white cane. Whereas in the latter cases, trainees are expected to learn how to accomplish navigational tasks by using tools in relevant ways, in the case of learning to walk with a guide-dog, trainees are required to engage with an animal, which results in incorporating the dog in the organization and sequential unfolding of instruction-instructed actions.

While the study of social interaction has hitherto been confined primarily to inter-human interactions, interest in social interactions involving animals has been growing in recent years. This *animal turn* across the social sciences and humanities has spread to geography, sociology, and anthropology (Kulick, 2017), but also to linguistics (de Malsche & Cornips, 2021; Mondémé, 2022a, 2022b). By showing how the animal's behaviors are recaptured as meaningful actions, these studies contribute to the empirical re-specification of animal agentivity and participation. Of all the studies that are flourishing, some have focused specifically on the human-dog dyad, particularly in the context of assistance with guide-dogs for visually impaired persons (Due & Lange, 2018; Mondémé, 2019). As explored in the analyses below, the presence of this third-party animal has essential consequences regarding the distribution of participation: he/she is addressed, given verbal instructions, and his/her actions have decisive consequences on the accomplishment of the activity.

Some studies have proposed to consider animal participation as forms of 'utterances' that can be subject to syntactic, semantic or even pragmatic analysis (de Malsche & Cornips, 2021). More specifically, in the field of EM/CA, recent work has focused on the relevance of treating animal contributions as turns – not in the sense that they would be equivalent to verbal turns-at-talk, but as they constitute relevant embodied contributions, retrospectively and prospectively oriented to the other participants' sequential actions (Mondémé, 2022a, 2023). This body of work has also emphasized the necessity of treating animal displays or vocalizations as significant actions (Harjunpaa, 2022), not only from an ethical point of view but, above all, from an analytical one (Mondémé, 2019). As we shall see, this also significantly impacts the transcription layout (Mondada, 2018), as it involves having dogs feature in the transcript in the same way as human participants.

## 3 Data and methods

Data for this study were videorecorded by Chloé Mondémé in a school for guide-dogs in France between 2008-2009. The school was responsible for breeding and training puppies for about 2 years, after which the dogs were trained as guide-dogs, i.e., they were trained to provide mobility assistance and respond to an inventory of verbal cues. Still at the school, trained guide-dogs were paired with blind applicants. The newly formed blind-dog pair went through a two-week 'adaptation phase' focused on building a good and efficient relationship. During the two weeks (one spent at the school and one at the blind person's place of residence) the blind trainee and their guide-dogs were able to experiment and train together.

Data for this study are selected from 3 training sessions within the adaptation phase. During these sessions, blind trainees and their newly assigned guide-dogs are trained in both indoor and outdoor mobility and are accompanied by the dogs' former trainers who monitored their interaction and helped the blind persons to develop the communicative skills needed to interact with their guide-dogs (for a similar context, see Mondémé, 2024). In this context, the trainers' goal is not the training of the guide-dogs, which was now completed, but of

their new blind handlers. Participants are 2 blind trainees, 2 trainers and 2 guide-dogs, grouped into 2 different trios. Data were videorecorded after obtaining the participants' consent and were transcribed according to the conventions elaborated in CA for talk (Jefferson, 2004) and multimodality (Mondada, 2019).

# 4 Results

## 4.1 Instructing the blind trainee to prompt the dog to provide navigation assistance

As their name suggests, the main task of guide-dogs is to guide the blind handler while navigating both open and enclosed urban spaces. Navigation-assistance tasks of a guide-dog includes taking and maintaining a specific direction of locomotion, identifying pedestrian walkways, signaling unevenness (e.g., steps) and avoiding obstacles, heading to entrances/exits of enclosed places, and spotting crosswalks. Guide-dogs are trained to respond to vocal cues that are specific for each of the above-listed navigational tasks, so it is important that blind handlers master such cues and use them at the appropriate time to prompt their guide-dog to provide navigation assistance. This is reflected in the organization of the first instructional configuration identified in the data which takes the form of a sequence where the 'first' instruction, produced by the trainer and addressing the trainee, is followed by a 'second' instruction, which is in turn produced by the trainee and addressed to the guide-dog. The first (trainee to trainer) instruction formulates *what to tell the dog to do* next by providing the verbal cue the dog is trained to recognize and respond to. The second (trainee to dog) instruction is routinely achieved by reusing the verbal cue from the first instruction and addressing it to the dog.

In Extract 1, the trainer explicitly requests the trainee to (re)say the verbal cue *traverse* / "cross" and address it to the dog.

Extract 1: Extended instruction + Repetition

BEN = Benoite(trainee)
STE = Stéphane (trainer)
COO = Cookie (guide-dog)

```
1    BEN:   c'est: bien\  * (0.4) t'es un grand garçon\
            good                  you're a great boy
            >>strokes head*
2           (3.9)
3  ->STE:   dis lui traver/se
            say cross to him
4           ¤(0.3)¤ (0.2) ¤
     COO:   ¤.....¤gets up¤
5  ->BEN:   ¤traverse
             cross
     COO:   ¤walks--->>
```

When the Extract starts, the participants are standing at the edge of a sidewalk and BEN is praising and rewarding COO for having stopped and sat before the crossing, which is precisely how guide-dogs are expected to behave when it comes to crossing a road (Cf. Extract 5). At line 3, STE progresses the navigational activity by producing an instruction concerning the next task (crossing the road). STE's instruction exhibits a compositional structure composed of (1) the request to (re)say (*dis lui* / "say to him") and (2) the verbal cue to be delivered to the dog subsequently (*traverse* / "cross"). Hence, rather than simply requesting BEN to instruct the dog to cross (e.g., "*ask* him to cross"), STE's instruction requests BEN to 'say' the word *traverse* and address it to the dog, which she does at line 5.

Noticeably, COO gets up preparing to start the crossing (l. 4) already following STE's instruction and before BEN delivers the cue to him[1]. In the context of the 'first' instruction (l. 3), the cue *traverse* is clearly addressed to BEN rather than to COO, yet the dog's early response displays the saliency of the cue.

In the data, instructions like the one just analyzed with reference to Extract 1 (l. 3) including a fully articulated request to (re)say the cue are not very frequent; in fact, in most cases trainers only provide the cue which the trainees are expected to subsequently reuse and address to the dogs, as in the following Extract.

Extract 2: Cue + repetition

CAT = Catherine (trainee)
MAR = Martin (trainer)
CHE = Cheyenne (guide-dog)

```
1 ->MAR:   >tout droit< la porte
           straight through the door
2 ->CAT:   *tout droit la porte
            straight through the door
    cat:   *walks-->
3          ¤(1.0)    ¤      (0.6)          ¤
    che:   ¤two steps¤points twd door handle¤
4            *     (0.2)      *
    cat:   ->*arm towards door*
```

In this Extract, the participants are navigating an indoor space at the school for guide-dogs. When the Extract starts, the participants are in a corridor leading to an exit. At line 1, MAR produces the 'first' instruction (*tout droit la porte* / "straight through the door"). The instruction is delivered quickly and particularly the first two words (*tout droit*) with a quick speaking rate. CAT's subsequent repetition (l. 2) consists of the very same words as the prior instruction. This displays CAT's understanding of the prior instruction as providing the verbal cue to be reused and addressed to CHE.

[1] Recall that these data are drawn from the 'adaptation phase', during which the dog is adapting to his new human handler (Cf. "Data and Method"). In this context, it is not surprising that the dog sometimes displays sensitivity to his previous trainer's voice.

Compared to MAR's instruction (l. 1), CAT's (l. 2) is delivered at a slower pace and is heard more clearly and punctuated. Such differences in the delivery of the instructions contribute to selecting specific recipients for the 'first' and the 'second' instruction. MAR's delivery of the instruction at line 1 seems oriented towards selecting CAT as its recipient while 'neutralizing' the potential that it is perceived as a direct instruction to (and by) CHE (Cf. Extract 1). Conversely, CAT's delivery of the instruction at line 2 selects CHE as its recipient, which seems to be confirmed by the timing of CAT's and CHE's subsequent mobile actions. While CAT starts walking towards the door immediately after receiving the instruction from MAR (line 2), observably treating it as an instruction addressed to herself; CHE starts walking ahead only after CAT repeats the verbal cue, which displays her responsiveness not just to the cue, but also to her future owner's voice. At line 3, it is also noteworthy that the dog's implementation of the instruction develops into two subsequent actions: (1) leading CAT to the door, and (2) showing where the handle is by pointing her nose towards it.

Overall, Extracts 1 and 2 show that (re)using specific verbal cues to address instructions to the guide-dog is a relevant pedagogical task for prospective guide-dog owners. Also, in both extracts, verbal cues are configured as primary resources for instructing the dog to accomplish navigational tasks during both outdoor and indoor mobility.

## 4.2 Instructing the trainee to reward the dog

In our data, guide-dogs are routinely rewarded upon successfully accomplishing a navigation-assistance task. The recurrence of rewarding in this sequential environment reflects the importance commonly placed in guide-dog schools on *positive reinforcement* (Skinner, 1951) to increase dog learning.

The second instructional configuration identified in this article occurs following the completion of a previous navigational task and consists of a sequence where the trainer produces a verbal instruction requesting the trainee to reward the dog. The trainee implements the reward by combining embodied and verbal resources, such as stroking and praising the dog, as in the following extract.

Extract 3: Instructing to reward the dog

CAT = Catherine (trainee)
MAR = Martin (trainer)
CHE = Cheyenne (guide-dog)

```
1   CAT:   en a¤vant//#
           walk ahead/forward
    che:       ¤few steps -->
    Fig.              #Fig. 1
```

**Figure 1**

2 **(2.0)¤ ¤(0.6)**
che: -->¤ ¤sits--->
3 MAR: **impec¤cable (.) *un gros gros calin=***
*impeccable a big big cuddle*
che: -->¤ *.....*
4 CAT: ***=c'est bien ma belle*#***
*well done my sweetheart*
cat: ***strokes CHEY's head ***
Fig. #Fig. 2

**Figure 2**

5 MAR: **gro:s gros calin**
*big big cuddle*
6 CAT: ***c'est bien ma belle\ (.) t'es belle\ c'est bien***
well done *my sweetheart you are beautiful well done*
cat: ***strokes cheeks and neck -->***
7 **(1.1)**
8 CAT: **belle fifille ça*#**
*beautiful little girl*
cat: -->*
Fig. #Fig. 3

**Figure 3**

9 MAR: **voilà ça c'est bon\ (.) c- c'est vraiment l'exercice**
*here it is it's good this is really the exercise*
10 **qu'on doit faire à chaque fois.**
*we have to do every time*

At the beginning of the Extract, CAT asks CHE to proceed straight (line 1: *en avant* / "walk ahead"). The dog complies with the instruction and the pair reaches a crosswalk. Here CHE stops and sits (line 2), despite not being

instructed to do so[2]. By stopping before the road crossing, the dog ensures the blind handler's safety, reason why MAR subsequently assesses CHE's conduct very positively (line 3: *impeccable*) and then instructs CAT to reward the dog with "a big big cuddle" (line 3: *un gros gros calin*). This instruction explains how to implement the rewarding by emphasizing the use of tactile resources. CAT delivers the reward by simultaneously stroking CHE's head and praising her (line 4: *c'est bien ma belle*).

This sequence is then repeated as MAR repeats the instruction *un gros gros calin/* a big big cuddle (line 5) and CAT again strokes CHE's head and increments her previous praise by repeating *c'est bien ma belle/* "well done that's good my sweetheart" (line 6:) and adding compliments (line 6: *t'es belle* / "you are beautiful"; line 7: *belle fifille ça* / "beautiful little girl this one") followed by a third repeat of *c'est bien* / "well done" (line 6).

The analysis of Extract 3 has shown how rewarding the dog is accomplished by combining verbal and embodied resources. Also, Extract 3 provides a clear illustration that, in the setting under investigation, guide-dogs, rather than being mere executors of commands, are configured as participants capable of interpreting the previously received instructions (i.e., to go forward) in the light of the evolving contingencies of the road (i.e., reaching the end of the sidewalk), and of adopting a conduct (i.e., stop before crossing) that is appropriate to their role as assistants to the mobility and safety of the blind pedestrian they are accompanying. At the end of the Extract (lines 8-9), the trainer proposes that the whole exercise, which includes the rewarding, is repeated, presumably to consolidate this practice in the blind-dog pair.

The following extracts show that the pedagogical relevance of rewarding the dog when he/she has performed a task correctly is incorporated into the blind-dog interaction as a result of repeated training. Indeed, in Extracts 4 and 5 below, the trainee initiates the reward earlier than the trainer's instruction.

Extract 4: Anticipating the instruction to reward the dog

CAT = Catherine (trainee)
MAR = Martin (trainer)

```
1   CAT:   *c'est bien:*#[*c'est bien ma belle\] c'est très
            well done     well done sweetheart  it's very
    cat:   *strokes head* *strokes cheeks and neck -->
    Fig.                #Fig.4
```

[2] The dog has not been verbally instructed to sit, but she is expected to (has been trained to) do so. From the point of view of the trainer, this scene is a set-up to test if the dog will stop in any case in front of a crossroad (even if being given a contradictory cue by the trainee).

**Figure 4**

2 MAR: **[gros gros calin ]**
*big big cuddle*

3 CAT: **bien # ma belle**
*well done sweetheart*

Fig. #Fig.5

**Figure 5**

4 MAR: **hein bon elle a bien fait son vira/ge***
*well she made her turn well*

cat: -->*

The dog has accomplished a series of complex actions just before Extract 4 begins, and she stopped before a crosswalk to signal it to the blind trainee like in Extract 3. In this case, CAT starts rewarding the dog with strokes and praises (line 1) before she is instructed to do so by MAR (line 2). CAT adjusts to MAR's overlapping instruction (line 2) in an emergent way as she upgrades her initial praise (lines 1-2: *c'est bien ma belle* "well done my sweetheart" becomes *c'est trés bien ma belle* "very well done my sweetheart") incorporating MAR's suggestion to address the dog with a *gros gros calin* / "a big big cuddle" (l. 2). The incremented reward is also achieved through incremental use of tactile resources: CAT goes from stroking the dog's head (beginning of line 1) to stroking more 'intimate' parts of the dog's upper body such as her cheeks and neck (lines 1-4).

As in Extract 3, also in this extract, while the trainer's instruction only mentions tactile rewarding (*calin* / "cuddle"), the trainer implements the reward by combining tactile and vocal resources. Overall, by anticipating the trainer's instruction, the trainee displays (a) her understanding of the dog's conduct as an action specifically aimed at securing a safe road crossing, which is worthy of recognition, and (b) her mastery of the routine practices for rewarding the dog in relevant circumstances. This latter aspect is particularly evident in the following extract.

In Extract 5, likewise in Extract 4, the trainee starts rewarding the dog earlier with respect to the trainer's instruction. Additionally, she rewards the dog using both vocal and tactile resources despite the trainer producing a generic request to "congratulate" the dog.

Extract 5: Anticipating the instruction to reward the dog

CAT = Catherine (trainee)
MAR = Martin (trainer)
CHE = Cheyenne (guide-dog)

```
1     MAR:   *là\ (0.3)   *là          *vous [pouvez la ¤fé¤lici]ter
                there          there          you can congratulate her
      cat:   *hand on head*foot on sdw*strokes-->4
      che:                                              ¤..¤walks-->>
2     CAT:                                  [c'est bien/       ]
                                             well done
3 -> MAR:    et [en avant tout droit ]
             and forward  straight
4     CAT:   [c'est bien\ ma belle]*
              well done sweetheart
      cat:                        -->*
5            (0.7)
6 -> CAT:    c'est bien:\ tout droit/
             well done    straight
```

At line 1, when MAR starts delivering the instruction (*là vous pouvez la féliciter* / "there you can congratulate her"), CAT is already placing her hand on top of the dog's head, which is seen as initiating the rewarding. Hence, both MAR and CAT are simultaneously oriented to that moment as constituting a transition between CHE's fulfilment of the previous task (not shown in the transcript) and the next phase of the overall exercise, i.e. rewarding. While MAR's instruction does not specify how to "congratulate" CHE, CAT implements the reward in the routine way observed with reference to Extracts 3 and 4, that is, by stroking the dog's head (lines 1-4) and praising the dog verbally (line 2: *c'est bien* / "well done"; line 4: *c'est bien ma belle* / "well done sweetheart").

The analysis so far has shown that instructions to reward the dog highlight the pedagogical character of the exercise: the blind-dog pair is still in training, and it is important to keep the dog's motivation intact. In both Extracts 4 and 5, by anticipating the trainer's instruction, the trainee displays that they have routinized rewarding as an integral part of the exercise and as a crucial pedagogical resource for consolidating the partnership with their guide-dog.

Overall, the analysis of Extracts 1 - 5 has illustrated that there is a distribution of vocal and tactile resources according to the type of action that is to be addressed to the guide-dog. While getting the dog to accomplish a subsequent navigational task is achieved by exclusively relying on verbal cues, rewarding the dog once he/she has successfully completed such task entails a combination of tactile and vocal components. The following section proposes the analysis of an additional activity, namely correcting the dog's conduct, which is preferably implemented using embodied rather than verbal resources.

### 4.3 Instructing to correct the dog's conduct

The previous section has shown how rewarding the guide-dog after he/she has completed a task is achieved through verbal instructing actions and multimodal (tactile and verbal) instructed actions. However, the dog's conduct sometimes needs to be corrected, particularly when he/she failed to accomplish a previously instructed action. In this case as well, the trainer produces instructions to show the trainee how to prompt a correction in the dog's conduct, and the trainee implements the instructed actions, as in the following extract.

Extract 6: Prompting a correction

CAT = Catherine (trainee)
MAR = Martin (trainer)
CHE = Cheyenne (guide-dog)

1 MAR: **mettez la assis:**
*have her sit down*
2 **(1.3)**
3 CAT: **AssIs**
*sit down*
4 **(1.3)**
5 CAT: **cheyENNE A(.)ssis#**
*cheyenne sit down*
Fig. #Fig.6

**Figure 6**

6 **+ (2.8) +**
che: +snifs the ground+
7 CAT: **che*yenne// # AS*SIS**
*cheyenne sit down*
cat: ***pulls the leash***
Fig. #Fig.7

**Figure 7**

8 **(0.7)**
9 MAR: **allez faites claquer la voix (.) et la laisse**
*come on make the voice and the leash slam*
10 CAT: ***ASSIS # ***
*sit down*

```
        *sharp pull on the leash*
Fig.          #Fig.8
```

**Figure 8**

```
11  MAR:  +AH: bien\+ alors celui-ci+ #il était bien (0.7) celui-ci l`ptit
          oh well done   so this one was good          this one the little
    che:  +.........+sits down      +
    Fig.                              #Fig.9
```

**Figure 9**

```
12  MAR:  coup qu`vous nous avez mis avec la laisse là/ (.) vous me le
          snapping you did with the leash                  you shall
13        refaites tout le temps comme ça hein/
          do it all the time like this
14        (1.2)
15  MAR:  vous avez vu en plus c'est efficace\
          you see and it works
```

The excerpt begins as the pair has reached a bench: MAR has previously instructed them to sit down for a while (not shown in the transcript). CAT sits down, but CHE is apparently reluctant, so MAR formulates the verbal command *mettez la assis* / "have her sit down" (line 1). CAT repeats the verbal cue with slight insistence (line 3: *AssIs* / "sit down") but CHE does not sit accordingly. Following a pause (1.3 s), MAR repeats her command, this time adding the address name "cheyenne" (line 5: c*heyenne Assis* / "cheyenne, sit down"). Since CHE is sniffing the ground, resisting the verbal cue, CAT repeats the cue again with an even louder voice (line 7), and supplements it with a sharp pull on the leash (Fig. 6). Confronted with the noticeable absence of response from CHE (Fig. 7) despite these repeated orders, MAR recommends acting: at line 9, he instructs to "make the voice and the leash slam". This instruction solicits CAT to enhance her previous attempts to correct CHE's conduct by adjusting (strengthening) both her use of voice and of the leash to prompt the dog to sit. Both modulating the voice loudness and the strength with which CAT pulls the leash are configured here as relevant embodied components for accomplishing a corrective action. On the fourth occurrence of the verbal cue, this time delivered very loudly (line 10: *ASSIS* / "sit down"), CAT makes a sharp pull on the leash (Fig. 8). CHE immediately sits down (Fig. 9) and MAR comments upon this last embodied correction (line 11: *celui-ci il était bien* / "this one

was a good one"), referring to the fact that pulling on the leash should be reserved to correcting a faulty behavior as here – and should be realized very firmly.

Compared to the instructions given to reward the dog analyzed in the previous section, which simply mentions the expected action (i.e. "vous pouvez la feliciter"), in this case the instruction consists in a detailed description of the embodied behavior the trainee must assume to get the dog accomplishing the task. Unlike what has been shown with reference to instructions to reward the dog (§ 4.2), in case of correction the type of actions to be taken are precisely described and the instruction is prescriptive as to the resources to be used.

## 4.4 Discussion

This article has explored how visually impaired participants are trained to address, and interact with, their guide dogs in relevant ways. The knowledge of the vocabulary, particularly the use of standardized verbal cues, but also aspects pertaining to the vocal delivery of such cues to the dog appear crucial. However, blind participants also learn when *not* to rely solely on vocal resources: when dogs should be rewarded with stroking and other haptic conducts or, on the contrary, and more rarely, when they should be corrected.

The fact that dogs are generally *told* what to do next suggests that vocal and verbal forms of communication are favored practices. This is also the case with corrections, that are primarily prompted verbally (i.e., by repeating a verbal cue several times) and are implemented physically (i.e., by sharply pulling the leash) only in case the dog is reluctant to comply (see § 4.3). Touching and direct contact are not preferred as a way of giving instructions to dogs, contrary to the use of sticks as communicational devices, for instance with donkeys or elephants in specific historic-cultural contexts (Karippal, 2023). Mediated form of communication through vocal and verbal means is privileged to perform navigational and assistance tasks. This rests on the idea that the highest degree of education presupposes to be able to manage the other's body from a distance, and to avoid physical force. Such a distance involves the mediation of symbolic language. The avoidance of physical coercion hints to the fact that the pinnacle of training is to be able to accomplish complex tasks with minimum apparent constraints. It is, in that respect, close to what the blind psychologist Bruce Johnston has called *Harnessing Thought* (1995).

Our data show more than just couples walking through urban space. They show participants engaged in an institutional and pedagogical activity, that of learning to interact with a new non-human partner. The participants are first and foremost engaged in an activity of 'learning to learn' (learning to do; learning how, when and what to tell; learning to praise; learning to prompt corrections), and not only in a navigational activity of the kind they will have to carry out on their own later on.

Such activities make rewards and sanctions expectable: the prototypical instances of reinforcement, as systematized by Edward Thorndike (1911). Indeed, animal training, and dog training in particular, is greatly influenced by behaviorism (see Crist and Lynch, 1990 [2022]; Hearne, 1986; Goode, 2007 for stimulating

discussions), and modern forms of training tend to favor positive reinforcement. Rewards are treated as fundamental instruments in this process: they allow dogs to identify the expected behavior, and this contributes to keeping them motivated.

The point we would like to make now is that the distribution of resources, with the use of embodied resources being limited to certain situations, reveals some underlying conceptions of animal training and interspecies communication.

The literature on training tends to oppose behaviorist and mentalist conceptions, but what the analysis of our data shows is that even when the process is based on an apparent behaviorism (vocal command operating as a stimulus, followed by a response in the form of embodied realization of the command), this process is actually based on expectations that presuppose a high degree of mentalization and "skillful minds" (Johnston, 1995) on the part of the animal, so that this distinction is actually more complex than it may appear (see Mondémé, 2020 for further developments).

This tension between behaviouristic presuppositions on the one hand and the life-world of ordinary practices on the other, already noted by phenomenologists and ethnomethodologists in different contexts (Wieder, 1980, in chimpanzee research; Crist & Lynch, 2022 [1990] in dog training) is representative of the different, co-existing yet paradoxical, conceptions of the dog as an instrument of assistance as well as as a participant endowed with complex forms of reasoning and agentivity (Koski & Bäcklund, 2015). Our data show that the way participants' (trainer and trainee) address the dogs may reflect either a mentalistic or a behaviouristic approach, according to emerging practical and sequential circumstances: on the one hand, dogs are in the first place requested – and expected – to follow verbal instructions and to adjust to local contingencies (e.g., stopping before a pedestrian crossing), which is seen as implementing a mentalistic approach (i.e., one in which dogs are considered as having skillful minds); on the other, the stress placed on rewarding the dogs upon successful completion of a previously instructed task is illustrative of a behaviouristic conception, as is the use of more straightforward means, such as raising their voice and pulling the leash, to 'force' the dog to comply with a previous unfulfilled request.

## 4.5 Conclusion

Drawing on videorecorded data from training sessions in French in which trainers accompany blind trainees during the accomplishment of navigational tasks, this article has investigated how blind participants are trained to use vocal and embodied resources to interact with their guide-dogs.

The results show that vocal and tactile resources are used to deliver rather different actions to the guide-dog. Vocal resources are primarily employed to get the dog accomplish a subsequent mobility assistance task such as crossing a street and heading for a door or a sidewalk; tactile resources are employed to reward the dog (e.g., stroking his/her head) and to correct their conduct (e.g., pulling the leash or harness). Such differentiation of resources (i.e.,

verbal resources are preferred to get navigational tasks accomplished and tactile resources are limited to reward the dog, or to correct his/her behavior once verbal instruction failed), demonstrates that the guide-dog is treated not only as an aid to mobility (as is the white cane), but as a participant to, and recipient of, social actions entailing both practical and affective aspects.

## References

Crist, E. & Lynch, M. (2022). L'analysabilité de l'interaction entre humains et animaux: Le cas de l'éducation canine. *Langage et société*, *176*, 25-41. https://doi.org/10.3917/ls.176.0027

De Malsche, F., & Cornips, L. (2021). Examining interspecies interactions in light of discourse analytic theory: A case study on the genre of human-goat communication at a petting farm. *Language & Communication*, *79*, 53-70. https://doi.org/10.1016/j.langcom.2021.03.003

De Stefani, E. & Gazin, A.D. (2014). Instructional sequences in driving lessons: mobile participants and the temporal and sequential organization of actions. *Journal of Pragmatics, 65*, 63-79. https://doi.org/10.1016/j.pragma.2013.08.020

Deppermann, A. (2018). Instructions in driving lessons. *International Journal of Applied Linguistics*, *28*(2), 221-225. http://dx.doi.org/10.1111/ijal.12206

Doré A. & Michalon, J. (2016). What makes human–animal relations 'organizational'? The De-Scription of anthrozootechnical agencements. *Organization*, *24*(6), 761–780. https://doi.org/10.1177/1350508416670249

Due, B. & Lange, S. (2018). Semiotic resources for navigation: A video ethnographic study of blind people's uses of the white cane and a guide dog for navigating in urban areas. *Semiotica*, *222*, 287-312. https://doi.org/10.1515/sem-2016-0196

Garfinkel, H. (2002). Instructions and instructed actions. In: Warfield Rawls, A. (Ed.), *Ethnomethodology's Program. Working out Durkheim's Aphorism* (pp. 197-218). Rowman & Littlefield.

Goffman, E. (1981). *Forms of talk*. Blackwell.

Goode D. (2007). *Playing with my dog Katie. An ethnomethodological study of dog-human interaction*. Purdue University Press.

Goodwin M. H. (1990). *He-Said-She-Said. Talk as social organization among black children.* Indiana University Press.

Harjunpää, K. (2022). Repetition and prosodic matching in responding to pets' vocalizations. *Langage & société*, *176*(2), 69-102. https://doi.org/10.3917/ls.176.0071

Hearne V. (1986). *Adam's task: Calling animals by name*. Vintage Books.

Jefferson, G. (2004). Glossary of transcript symbols with an introduction. In G. H. Lerner (Ed.), *Conversation analysis. Studies from the first generation* (pp. 13–31). John Benjamins Publishing Company.

Johnston B. (1995). *Harnessing thought. The guide dog, a thinking animal with a skillfull mind*, Lennard Publishing.

Karippal A. (2023). *Back then it was culture, now it is animal torture. Moral phenomenological milieu of human-elephant entanglements in Kerala*. Geneva, Graduate Institute Publications.

Koski, L. & Bäcklund, P. (2015). On the fringe: The positions of dogs in Finnish dog training culture. *Society & Animals*, *23*(1), 24-44. https://doi.org/10.1163/15685306-12341342

Kreplak, Y., & Mondémé, C. (2014). Artworks as touchable objects. In: M. Nevile, P. Haddington, T. Heinemann & M. Rauniomaa (eds.) *Interacting with objects: Language, materiality, and social activity* (pp. 289-311), John Benjamins.

Minami, Y., Nisisawa, H. Y., Okada, M., & Sakaida, R. (2023). Two types of demonstration through guided touch with cane: Instruction sequences in orientation and mobility training for a person with visual impairments. *Human Studies*, *46*(4), 723-756. https://doi.org/10.1007/s10746-023-09690-6

Mondada, L. (2014). Instructions in the operating room: How the surgeon directs their assistant's hands. *Discourse Studies*, *16*(2), 131-161. https://doi.org/10.1177/1461445613515325

Mondada, L. (2018). Multiple temporalities of language and body in interaction: Challenges for transcribing multimodality. *Research on language and social interaction*, *51*(1), 85-106. https://doi.org/10.1080/08351813.2018.1413878

Mondada, L. (2019). Conventions for multimodal transcription (initial version: 2001; current version: 5.0.1, Nov. 2019), available at: https://www.lorenzamondada.net/multimodal-transcription (last access: 07/04/2024).

Mondémé, C. (2014). 'Y'a un obstacle' : Partage perceptif et construction des savoirs pratiques. In: L. Mondada (ed.), *Corps en interaction : Participation, spatialité, mobilité* (pp. 191-225). Lyon: Ens Editions.

Mondémé, C. (2019). *La socialité interspécifique : une analyse multimodale des interactions homme - chien*, Limoges, LL, Lambert-Lucas.

Mondémé, C. (2020). Touching and petting: Exploring "haptic sociality" in interspecies interaction. In: A. Cekaite & L. Mondada (eds.), *Touch in social interaction: touch, language and body* (pp. 171-196), Routledge.

Mondémé, C. (2022a). Quand les animaux participent à l'interaction sociale : nouveaux regards sur l'analyse séquentielle, *Langage et société*, *176*, 9-24. https://doi.org/10.3917/ls.176.0011

Mondémé, C., (2022b). Why study turn-taking sequences in interspecies interactions?, *Journal for the theory of social behaviour*, *52*(1), 67-85. https://doi.org/10.1111/jtsb.12295

Mondémé, C. (2023). Sequence organization in human–animal interaction: an exploration of two canonical sequences, *Journal of pragmatics*, *214*, 73-88. https://doi.org/10.1016/j.pragma.2023.06.006

Mondémé, C. (2024). Shared intelligibility in interactions between visually impaired people and guide dogs. In: B. L. Due (ed.), *The practical accomplishment of everyday activities without sight* (pp. 49-68), Routledge.

Relieu, M. (1994). Les catégories dans l'action. L'apprentissage des traversées de rue par des non-voyants. *Raisons Pratiques, 5*, 185–218.

Simone, M., & Galatolo, R. (2020). Climbing as a pair: Instructions and instructed body movements in indoor climbing with visually impaired athletes. *Journal of Pragmatics*, *155*, 286-302. https://doi.org/10.1016/j.pragma.2019.09.008

Simone, M., & Galatolo, R. (2021). Timing and prosody of lexical repetition: How repeated instructions assist visually impaired athletes' navigation in sport climbing. *Research on Language and Social Interaction*, *54*(4), 397-419. https://doi.org/10.1080/08351813.2021.1974742

Simone, M., & Galatolo, R. (2023). Du «faire agir autrui» au «faire ensemble»: les instructions comme moyen de soutien du mouvement corporel lors d'entraînements d'escalade avec des athlètes malvoyant. es. *Langage & Société*, *2*, 141-165. https://doi.org/10.3917/ls.179.0140

Simone, M., & Galatolo, R. (2023). The situated deployment of the Italian presentative (e) hai...,'(and) you have...'within routinized multimodal Gestalts in route mapping with visually impaired climbers. *Discourse Studies*, *25*(1), 89-113. https://doi.org/10.1177/14614456221126320

Skinner, B. F. (1951). How to teach animals. *Scientific American*, *185*(6), 26-29.

Stukenbrock, A. (2014). Take the words out of my mouth: Verbal instructions as embodied practices. *Journal of Pragmatics*, *65*, 80-102. https://doi.org/10.1016/j.pragma.2013.08.017

Thorndike, E. L. (1911). *Animal Intelligence*. Macmillan.

Ticca, A. C. & Ursi, B. (2019). Le toucher dans une visite guidée avec des enfants malvoyants : orientation, transition, expérience. In: A. Mazur-Palandre & I. Colón de Carvajal (Eds.) *Multimodalité du langage dans les interactions et l'acquisition* (pp.253-280), UGA Editions.