



Sequence organization in human–animal interaction. An exploration of two canonical sequences

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ARTICLE INFO

Article history:

Available online 8 July 2023

Keywords:

Human–animal communication
Conversation analysis
Multimodality
Sequential organization
Interspecies sociality
Dogs
Horses
Cats

ABSTRACT

This contribution investigates two canonical sequence types (summons/answer and request/compliance sequences) in daily human–animal interactions. Primatologists inspired by sequential analysis have previously documented what can be referred to as “sequential patterns” in animal communication, which entail basic orientations to the normative expectations at the heart of social life. Moreover, recent studies have observed these forms of turn-taking in interspecies interactions. This investigation is a contribution to this emerging trend. Following a review of recent literature on the topic, both in the field of social cognition and in pragmatics, it analyzes natural interactions occurring between domestic animals (mostly dogs, but also horses and cats) and their caretakers in diverse contexts. It focuses on a set of typical adjacency pairs, examining the animals’ actions and uptakes as they appear in two sequential positions, i.e. as first or second pair parts. I argue that unravelling the different ways in which animals’ actions may be “conditionally relevant” (Schegloff, 2007) to human utterances, and vice versa, has several critical consequences, both for the conception of animal participation and agency, as well as for the analytical devices that aim to develop linguistic and social theories.

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1. Introduction

The basic assumption of conversation analysis (hereafter CA) is that human conversation, a mundane and ubiquitous practice, is ordered and sequentially organized, and its organization can therefore be analytically scrutinized. Examining conversational-like sequences in interactions involving non-humans—i.e. non-verbal participants—may thus appear counterintuitive if not completely paradoxical. Yet, it can be argued that the sequences of actions produced during interactions involving domestic animals and humans—usually their caretakers—deserve to be further explored, with the very tools that have initially been developed to account for human social and communicative actions. This is not to say that animals’ behavioral displays or actions would be equivalent to verbal turns-at-talk. However, I argue that their sequential organization, and sometimes formatting, exhibit the same kind of phenomena of order as the canonical sequences analyzed in natural conversations. As the pioneers of CA have restlessly reminded, if human conversation has been the primary subject of

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examination, it is essentially because it is a perspicuous locus to study the emergent constitution of social order, rather than for an interest in talk per se¹ (Sacks, 1984; Rawls, 2009). Thus, it does not seem entirely irrelevant to attempt to investigate the orderliness of interspecies social interaction.

Based on the analyses of naturally occurring interactions between humans and domestic animals, this contribution aims to examine some adjacency-pairs (Schegloff, 1968, 2007) in which human and non-human participants jointly engage in interaction, thereby displaying their coordination for all practical purposes. The argument remains agnostic as to whether animals do share the same experience and comprehension of the ongoing action—as is expected within human interaction. As Atkinson & Heritage state: “The analyst is not required to speculate upon what the interactants hypothetically or imaginably understood, or the procedures or constraints to which they could conceivably have been oriented. Instead analysis can emerge from observation of the conducts of the participants” (1984: 1)—and from the observation of their position within the sequence, whether these actions be canonical turns-at-talks (Schegloff, 2007), embodied displays (Goodwin, 1981; Mondada, 2007; Streeck et al., 2011; Keevallik, 2014), composite utterances (Enfield, 2009), or even non-lexical sounds (Keevallik and Ogden, 2020; Hoey, 2020), as long as they are coordinated with the previous moves and in a state of conditional relevance towards it.

Although “sequence organization” is traditionally regarded as “the organization of courses of action enacted through turns-at-talk” (Schegloff, 2007, p. 2, emphasis added), my analysis deliberately focuses on sequences that may involve behavioral displays or embodied actions, in line with the embodied and multimodal turn that has deeply informed EMCA (Ethnomethodology and Conversation Analysis) over the last two decades (Goodwin, Streeck, Lebaron, 2011; Goodwin 2013; Mondada, 2007, 2018, 2019; Keevallik, 2010; inter alia—see Nevile 2015 for an overview). In contrast with other pragmatical approaches to language, CA has accomplished the gesture to relegate topicality (what the utterance is about) to the background, in favor of action (what the utterance does) (Schegloff, 2007, 1). I make the case that this approach provides a relevant theoretical framework to incorporate actions that are by nature not topical, or at least that bear no clear propositional content: animals’ actions.

2. Research on turn-taking in animal communication and interspecies interactions

Trying to map out forms of sequential organization beyond the restricted framework of human conversation is not completely new (see Mondémé, 2022 for an overview). It originates in the many attempts to investigate “non-talk-based forms of social organization” (Ivarsson and Greiffenhagen, 2015) and to use the heuristics of sequential analysis to examine wider forms of social actions (for instance, games, sports and other cultural activities), in diverse social contexts, including non-human contexts. I first briefly review this line of research (2.1) and then look at a more recent trend, that focuses on describing and analyzing interspecies (human-animal) interactions (2.2).

2.1. Sequential analysis of animal behavior

The identification of sequential communicative patterns in the animal world is a commonplace in ornithology and primatology. Since the boom of primatology in the 1960’s, zoologists have often described forms of communication among primates in terms of “sequences”, modeled on a “conversational rule system” (Snowdon and Cleveland, 1984). “Gesture sequences” in particular have been closely investigated in great apes, during social communicative behavior such as play (McCarthy et al., 2013), and grooming (Liebal et al., 2004). However, in these works, “sequence” is either used as a synonym for “strings of gestures” produced by the signaler (as in Genty and Byrne, 2010: 298, in gorillas) or as a “combination of gestures” (for instance, in Liebal et al., 2004, in which exchanges of “gentle touch” constitute a sequence of “grooming” in chimpanzees). The use of the term “sequence” is therefore not to be confused with the more technical and restricted CA acceptance of “sequence organization”, as discussed below (section 4). The former exclusively refers to temporal alternation with probabilistic constraints (see Mondémé, 2022, p. 71 for a discussion).

In the mid-2010s, analytical concepts from Conversation Analysis were imported and used to the exploration of animal communicative behavior (Wilkinson et al., 2012; Rossano, 2013, 2018; Rossano and Liebal, 2014; Pika et al., 2018), by researchers in primatology or with a linguistic background in pragmatics or the analysis of human verbal interaction. Much of this work has focused on canonical interactional sequences composed of “adjacency pairs”, such as request and offers (Wilkinson et al., 2012 on chimpanzees’ food-sharing practices; Rossano and Liebal, 2014 on orangutans’ interactions). More recently, openings in the form of embodied greetings in baboons (Mondada and Meguerditchian, 2022) or practices of repairs (Heesen et al., 2022) have been explored within non-human primate interactions. These works often make a universal claim, with a more or less explicit intent to identify the precursors of human language through cross-species comparisons. Yet interspecies exchanges, understood in the narrow sense of human-nonhuman animal interactions² have only recently been examined.

¹ This now famous quote from Sacks indicates that the interest in language as the primary analytical focus was mainly occasioned by contingency: “I started to play around with tape recorded conversations, for the simple virtue that I could replay them, that I could type them out somewhat, and study them extendedly (...). It wasn’t from any large interest in language” (1984: 26). Elsewhere, Schegloff & Sacks state: “suffice it to say that it is not because of a special interest in language or any theoretical primacy we accord to conversation” (1973: 290).

² As distinguished from interspecies in the “broad sense”, such as those studied in behavioral ecology (e.g. prey-predator or host–parasite relationships).

2.2. Interspecies interactions

Interspecies interaction is an emerging topic in linguistic research (see inter alia [Tannen, 2004](#), in pragmatics; [deMalsche and Cornips, 2021](#), in discourse analytic theory; [Meijer, 2019](#), in language philosophy; [Kulick, 2017](#), in linguistic anthropology). As a review of all this literature is beyond the scope of this paper, I focus here on studies that take an interactional and conversational analytic approach to the question of human–animal relationships and communication. Following previous studies in veterinary contexts ([Roberts, 2004](#)), [MacMartin et al. \(2014\)](#) explored veterinarian's responses to animals' visible or audible “signals of distress”. The authors drew attention to a systematic format: the response token “I know” produced by the veterinarian after the display of the patient's unease or distress in a sequence ([MacMartin et al., 2014](#): 154).

1. Trigger event or activity (trouble or complainable action).
2. Patient's action (vocalizations and/or visible behavior)
3. Veterinarian's response “I Know” (with optional prepositioned or postpositioned elements)

Although the third position is not treated as conditionally relevant in the sense that the ‘I know’ is not normatively expected, the fact that the format recurrently occurs is itself interesting because it shows that human participants do treat animal displays as significant and meaningful actions that must be attended to.

In line with more ethnomethodologically-inspired studies interested in how participants make sense of each other's actions, regardless of their ontological category (i.e. whether these participants are humans or non-humans), [Crist and Lynch \(1990 \[2022\]\)](#), [Goode \(2007\)](#), and [Laurier et al. \(2006\)](#), have also explored different forms of interspecies interactions, respectively, during training activities, play, or walks in a park. [Simonen and Lohi \(2021\)](#) have also demonstrated how, within the human–dog relationships, breaching in expectancy exhibits forms of intersubjectivity.

The possibility of describing these coordinated actions using the vocabulary of sequential implicativeness was seminally evoked by [Crist and Lynch \(1990\)](#) and further explored by ([Mondémé, 2019](#), [Mondémé, 2020](#), [Mondémé, 2022](#)). [Dingemans \(2020\)](#) highlighted the existence of “animal-oriented interjections” as part of a study on recruitments, and [Harjunpää \(2022\)](#) explored prosodic matching in response to pet's vocalizations. By pointing out adjacency-pair like sequences in interspecies interactions, this analysis contributes to this emerging field, building on these previous studies to further explore two different sequential positions whereby animals' actions stand respectively in a first (4.1) or a second (4.2) pair part.

3. Data and methods

The data for this study are drawn from three different corpora, all of which involved video-recordings of human and non-human participants in their daily activities. All human participants have signed a consent form allowing the data to be used and disseminated for research purposes.

- Corpus ECGA consists of interactions between dog trainers and puppies in training (future guide-dogs for the blind); or between the visually impaired persons and their newly trained guide-dogs. It was recorded in France between 2008 and 2012.
- Corpus DOMUS consists of interaction between caretakers and their own animals (mostly dogs and cats), during ordinary interactions in domestic settings. It was recorded in French households during the year 2013.
- Corpus EAA consists of equine-assisted activities (therapeutic or coaching sessions). It was recorded in France in 2020–2021.

Altogether, more than 50 hours of diverse interspecies interactions were recorded. This analysis focuses on a collection of 10 fragments exhibiting interspecies adjacency-pair like sequences. Before coming to the analyses, methodological provisions are in order.

While the data involve different species (dogs, cats, horses, humans), the aim is not to develop ethological considerations, but rather to identify systematics patterns (comparable to those identified in human interactions so far) without making any assumptions nor hypotheses about the causes of the behavior. Obviously, animals in the data are domesticated animals, and highly socialized to the presence of humans during their ontogeny. This co-evolution through the long process of domestication has crucial implications for their ability to communicate with human beings (see for instance [Coppinger and Coppinger, 2001](#), for ecological analysis of human-dog co-evolution). By adopting a CA approach, the study also engages with its theoretical principles of setting aside the assumptions on the reason for a behavior,³ in favor of a systematic exploration of the infrastructural nature of social interaction. It also engages with its methodological principles, in particular the use of transcription—a format that has the virtue of shedding light specifically on the sequential aspect of exchanges. Of course, given the fact that at least one of the participants in the interaction is a non-verbal actor, relying on a transcript raises

³ With respect to how to understand the “Why that now?” question not in term of exogenous reasons but as a member's concern, see in particular Schegloff's response to Wetherell ([1998](#): 414).

many practical and theoretical issues and requires ad hoc methodological decisions (Mondémé, 2019; see also Mondada, 2018 on the transcription of baboons' actions using CA conventions).

Taking a reflexive attitude as to the effects produced by the various visual artefacts of the transcription, such as the layout or use of fonts (Ochs 1979; Duranti 1997), I argue that treating animal actions as moves of their own actually requires making strong methodological choices. For example, (i) the animal must appear in the transcript in the same way as the human; and (ii) the usual conventions of using bold type for the transcription of the verbal elements is amended and employed here to transcribe multimodal actions in order to avoid giving precedence to verbal utterances over the embodied actions—a crucial decision if we are to analyze human and animal actions symmetrically.

4. Analysis: two canonical sequences in human-animal interactions

One basic assumption in CA is that the meaning of an action (verbal turns, embodied actions, or a multimodal composition of both) is given from its position within a larger sequential environment. As Stivers states it:

“CA views the positioning of an utterance in the ongoing conversation as fundamental to the understanding of its meaning and to the analysis of its significance *as an action*” (Stivers 2013:191, emphasis added).

This allows actions produced by animals to be qualified not in terms of their hypothetical meaning—as regards to our knowledge of their behavioral repertoire or of their putative cognitive capacities—but simply in relation to their position within a larger sequence of action. The way participants orient themselves to this orderliness is the device that serves as demonstration of evidence (the so called “next-turn proof procedure”), with the idea that “each turn displays [the participants’] understanding of the prior” (Schegloff, 2007: 16). Adjacency-pairs are considered the strongest form of “sequential implicativeness” (Schegloff and Sacks, 1973: 296). In this analysis, I focus on two adjacency-pairs, which are among the most prototypical: summons/answer and request/compliance sequences. Here, I regard request/compliance and summons/answer as sequence types, regardless of the fact that they are literally “requests”, “summons” or “answers” in terms of speech acts (see also Drew and Couper-Kuhlen, 2014; and Kendrick and Drew, 2016: 3, for an extensive discussion). To make this claim, one must suspend the idea that a turn is nothing but a verbal utterance. A commitment to the idea of multimodal turn-taking (Mondada, 2007) involving “embodied constituents” (Keevallik, 2013: 8) or even “silent actions” (Mondada, 2019), as ways of “doing things with bodies” (Goodwin and Cekaite, 2013: 122), is required to give credit to the argument.

In line with the traditional CA argument, I claim that these formats, in that they are considered as canonical loci for the expression of conditional relevance (Stivers, 2013: 207) are also of interest in highlighting the mechanism of “nextness”, according to which “given the first, the second is expectable” (Schegloff, 1968: 1083). This study aims to explore these mechanisms in interspecies interaction.

Since social actions are usually investigated “as positioned either to initiate a possible sequence of action or to respond to an already initiated action as part of a sequence.” (Stivers, 2013: 191), I examine animal actions and behavioral displays as they appear in these two positions, starting with instances of animal actions as second pair parts (4.1), and then looking at cases of animals' actions as first pair parts (4.2).

4.1. Responding: animal actions as second pair part

In this first section, the investigation focuses on animal actions as second pair part in two canonical formats: request/compliance (4.1.1) and the summons/answer pre-sequence (4.1.2). Although on a syntactical or semantical level both might appear similar (a verbal order, or directive, in the form of an imperative, for instance), their sequential environment differs and allows them to be differentiated, as explained below.

4.1.1. Requests, compliance and rejection

The simplest, and some would argue less interesting, format⁴ is verbal demand uttered by the human participant, followed by its embodied fulfilment by the animal. What the action is doing here is comparable to a “would you please” verbal utterance. That is why I refer to it as a “request” (see also Rossano and Liebal, 2014 for a similar use in describing of orangutans' interactions), although it may also be regarded as a form of “directive”, especially if it takes the shape of an imperative verbal order (Goodwin, 2006; Mondada, 2014; Drew and Couper-Kuhlen, 2014). Regardless of the vernacular or technical term we use for descriptive purposes (see ‘Discussion’), what is crucial is that it denotes a rule-governed normative relationship. If an expected turn is missing, it is noticeably absent and sanctionable, and allows for repetitions and repairs to take place (see excerpt 3 below).

A very basic example gives a clear illustration of this kind of sequences. Catherine (CAT), who is visually impaired, requests her guide-dog Cheyenne (CHE) to help her find the door, and the door handle. As door handles can be located either on the

⁴ “Less interesting” in that it could be regarded as a mere behavioristic stimulus-response sequence in which only conditioning and reinforcement are involved. However, I hope to demonstrate that regardless of the dog's training (and, in fact, regardless of the dogs and their type of training), the rule “given the first, the second is expectable” still applies and is worth considering in terms of normative expectancies.

right or on the left side of the door, the dog has to show precisely where it is, indexically pointing at it with its muzzle—a maneuver in which guide dogs are trained.

Excerpt 1. ECGA_requesting the door

```

1 CAT tout droit/ la porte
    forward the door
2 + (1.0) #im1.1 + (0.6) +
3 CHE +walks to door +stops muzzle towards door handle+

```



IMAGE 1.1

In line 1, Catherine asks her dog to find the door, with the verbal turn “forward, the door”, an elliptic form of “go forward and find the door”. This request is immediately oriented to by the dog: she walks straight in the direction of the door for about 1 s, and then stops in front of it (line 2, [Image 1.1](#)) with her muzzle pointing in the direction of the door handle. This should enable Catherine to figure out, from the position of the dog’s head, the exact location of the door handle and to smoothly open the door. While this request is of course a typified form of order learned by the dog, and for which she has been trained, this should not be seen as a clause restricting the scope of the argument: if mechanisms of conditional relevance are at play, they display phenomena of social order, regardless of the ontogenetic constitution of the behavior in question.

The next excerpt provides another illustration, this time with a request addressed to the dog to go forward after having stopped at an intersection. Steve (STE), a dog instructor, is training the puppy Calyspo (CAL) to become a future guide-dog. They have just crossed a pedestrian crossing:

Excerpt 2. ECGA_moving forward

```

1 STE allez/ ɛn aʁvɑ̃t/ #im2.1
    come on forward
    CAL ɛ...ɛmoves right front leg->
2 STE ɔuɑi::s/ #im2.2 c'est bien\
    yeah that's good
    CAL ɛwalks--->>

```



Image 2.1

Image 2.2

Just before the beginning of the excerpt, the dog has stopped on the sidewalk as expected, to indicate the presence of a step. The pair can now resume their walk and Steve gives the verbal order to go forward: “come on, forward” (line 1). Even before the end of the completion of Steve’s turn, Calyspo starts the onset of a movement, by raising her right front leg ([Image 2.1](#)). This forward movement ([Image 2.2](#)) is felt through the harness and immediately assessed by Steve (line 2) “yeah, that’s good”. This case presents some similarities with excerpt 1, in that the execution of the order could be seen as no more than the outcome of a behavioristic conditioning anticipating the next action, rather than a display of action recognition. But instead of treating it as a behavioristic anticipation, let’s rather focus on the dynamic and emergent character of action: oriented towards the same goal, the participants are mutually projecting the “relevant next”.

A first case allows us to address this very issue of action recognition from a different angle. In line with previous research, it shows that requests are not only linguistic forms but also “social forms carrying with [them] implications of need, obligation, (...) and constraint” ([Kendrick and Drew, 2016](#): 3), and that participants orient to this normativity. This time Catherine and her guide dog Cheyenne are walking in the streets. The dog is still at the beginning of her “adaptation phase”. Catherine is heading to the post office—a walk that the dog has not yet performed.

Excerpt 3. ECGA_reluctance

- 1 CAT tout *droit #im3.1
 straight ahead
 CHEY *turns head walks slowly-->4
- 2 (0.8)
- 3 CAT tout droit cheyenne
 straight ahead cheyenne
- 4 *je sais on`y est jamais allé\ #im3.2 *allez/ #im3.3
 I know we've never been there come on
 *head turns toward CAT--> *straighten up head->



Image 3.1



Image 3.2



Image 3.3

As the pair approaches an intersection, Catherine formulates the directive to go “straight ahead”. But instead, the dog slightly turns her head to the right and slows down (line 1, [Image 3.1](#)). Catherine immediately notices this change of pace and repeats the order to go “straight ahead”, reinforced by uttering the dog’s name, “Cheyenne” (line 2). As the dog continues to walk slowly (from line 1 to 4), Catherine completes her request with a comment: “I know, we’ve never been there before” (line 4). This formulation is interesting for several reasons. First of all, it is prefaced by an “I know”, which treats the dog’s previous actions (head movement and change of pace) as significant behaviors. In other words, if this behavior is likely to receive a response in the form of an “I know”, it is because it carries propositional content of a minimally epistemic nature. The animal’s physical or somatic manifestation is interpreted as more than a random movement. Moreover, by formulating a possible reason for the change in pace, Catherine acknowledges the intelligible and accountable character of the dog’s conduct (the reluctance to go in an unknown direction). The repetition of the request here suggests that the expected action (going straight forward) was indeed “noticeably absent”, and shows the mutually intelligible nature of the request as such.

4.1.2. Pre-sequences: summons/answer

Summons/answer sequences are one of the minimal, generic adjacency pairs. They are described as “generic” by Schegloff (2007: 35) in the sense that they do not project a specific sequence (contrary to other, type-specific pre-sequences, such as pre-announcements for instance, that may preface a telling). Each summons creates a relevant next that is performed by the animal—with the difference that the ‘answer’ delivered here is not verbal, nor even vocal, but only embodied.

Below three excerpts are presented: the first is a strictly non-verbal S/A sequence (excerpt 4) and the second displays a more canonical form (excerpt 5). It is followed by a last case (excerpt 6), where the summons has a composite aspect, including non-vocal sound and the dog’s name. In all cases, the second pair part is an embodied response produced by the animal (highlighted by a black arrow in the left margin of the transcript).

Using diverse non-vocal sounds (Keevallik and Ogden, 2020), including clicks (Ogden, 2013) or lipsmacks (Wiggins and Keevallik, 2021) as summons, is not uncommon in interspecies interaction. The next excerpt illustrates this point during a very short (6 s) extract of an interaction with a horse (named Tor) at a training course to become an equine-assisted coach. The human participant (Eve) also performs a non-vocal sound (making a kiss-like sound with her mouth) to get the animal’s attention, achieving the mutual engagement of both participants in a focused interaction.

Excerpt 4. EAA_kiss as summons

```

#im4.1
eve <<gazing at TOR-->
tor <<looking away, straight position-->
1 EVE ((kiss))
2 £(1.1) #im4.2 £
→ TOR fmoves head to the rightf
3 *(1.5) £ (0.5) #im4.3£*
EVE *bends head *
TOR fgazes at EVEf
4 £(1.0) * (0.2) #im4.4 £
TOR fone step forward closer to EVEf

```

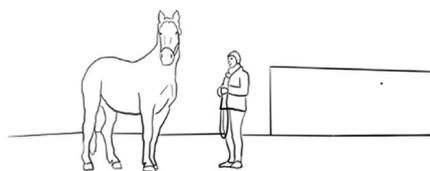


Image 4.1



Image 4.2



Image 4.3



Image 4.4

Since the interaction is strictly nonverbal here, the images and their temporal-sequential positions in relation to the “kiss-like” summons are crucial. At the beginning of the excerpt, the horse Tor is gazing away in the direction of the audience (Image 4.1). Eve is about to practice an exercise with the horse. She makes a “kiss” sound, which is immediately followed by a subtle signal of attention (Tor moves his head towards Eve and turns his left ear to her, as exhibited in Image 4.2). As she slightly bends her head while gazing at him, Tor continues his head movement until they achieve a face-to-face position (Image 4.3). Tor takes a step forward (line 4, Image 4.4), and the core of the interaction (an exercise to perform in front of an audience) can begin. Eve’s smile acknowledges that the expected action has been carried out.

In the next excerpt, Bill (BIL) is standing about two meters away from his dog Houra (HOU). He calls her with a verbal order. Once she is close to him, they engage in an affectionate exchange:

Excerpt 5. DOMUS_ S/A sequence

- 1 BIL \$°viens°
come here
\$puts hands on his knees-->5
- 2 * (0.9) *
- HOU **runs toward BIL and wags her tail**
- 3 * (0.3) *
- HOU **sits in front of BIL**
- 4 BIL oh oui/ j'aime mieux papa/ *quand on fait ç(h)a #im5.1*
oh yes I like it better daddy/ when we do th(d)at
- HOU **front leg on BIL's arm **
- 5 BIL \$quand même hein #im5.2
indeed
\$strokes the dog's back-->>

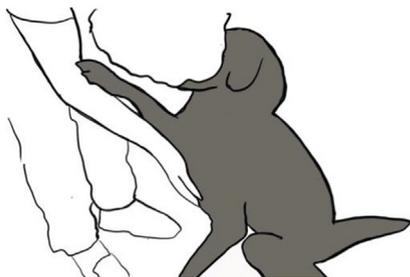


Image 5.1

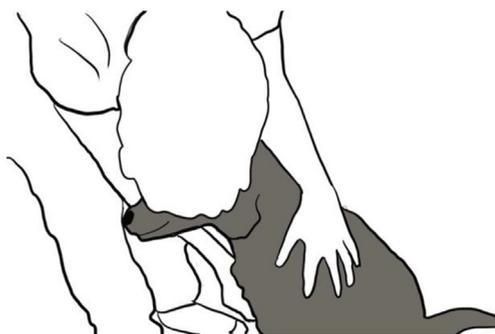


Image 5.2

The interaction starts with a summons in an imperative form (“come here”, line 1), and is coupled with an embodied ‘come here’ gesture, with Bill bending forward with both hands on his knees. The dog immediately starts running to her caretaker, while wagging her tail (line 2). She sits in front of him (line 3). Bill then starts to produce an account of her action using ventriloquism (Tannen, 2004; Mondémé, 2018 for a more detailed analysis of this device). Speaking on behalf of the dog, he uses the first-person pronoun: “I like it better daddy when we do that” (line 4)—the demonstrative pronoun “that” obviously referring to the cuddles they are engaged in (images Image 5.1 and Image 5.2), and alluding to the fact that they have been playing at “biting” together some time earlier.

Although the syntactical formatting of the turn in line 1 (an imperative) might call for a qualification in terms of a “directive” or “request” rather than a “summons”, its initial position, allowing for an extended interaction to take place, justifies considering it as a summons (Schegloff, 2007: 49). What constitutes the “answer” per se are the dog’s responses to come (line 2) and sit in front of her caretaker (line 3), i.e. in embodied forms of response—and the boundaries of the “second pair part” are obviously less clear cut than for turns-at-talk.

The third excerpt involves the same participants on another day. Bill, who has been hospitalized for a leg injury, is lying on the couch. He calls his dog, who is within sight in the kitchen.

Excerpt 6. DOMUS_composite summons

```

1  BIL    ((click)) (.) houra/
2  (1.0) $(0.4)      $
→  HOU    $gazes at BIL$
3  BIL    *viens #im6.1          *
      come here
      *come here gesture with index finger*
4  (1.9)
5  BIL    <vi:en:s ((high pitched voice))>
      come here
6  $(0.2)*(3.5) #im6.2      *          $
  HOU    $runs towards BIL and jumps on sofa$
  BIL    *taps on his chest*
7  $(0.3) #im6.3          $
  HOU    $sits in front of BIL$
8  BIL    *oh:          *
      *strokes HOU's muzzle and kisses her*

```



Image 6.1



Image 6.2



Image 6.3

In line 1 Bill uses two different devices to get his dog's attention: a click-like sound with his tongue, followed by the dog's name uttered with a rising intonation. Houra manifestly orients to this attention-getting device as she gazes at Bill (line 2). Bill then formulates a verbal directive to make her come to him (“viens”, come here), which is repeated twice: first in line 3, accompanied by a gesture with the index finger (visible in [Image 6.1](#)), and, in response to the dog's lack of immediate movement, a second time with a higher pitch (line 5). This time Houra runs towards Bill (line 6, [Image 6.2](#)) and sits in front of him (line 7, [Image 6.3](#)), then begins a moment of tactile exchanges and affectionate cuddles.

Here again, the repetition of the order, in a verbal form, targets the dog's lack of immediate response as a “noticeable absence” (see also [Heesen et al., 2022](#), for analysis of redos in third position within human and animal social interactions). The extent to which what happens between line 3 and 8 is an extension of the S/A pre-sequence or a request/compliance sequence in itself is ambiguous. The former assumes treating all forms of verbal utterances as summons that are attended to by the dog in a progressive manner (gazing, running, jumping, then sitting). The latter considers the very first exchange (line 1 and 2) as an S/A sequence of its own—consisting of a “composite utterance” ([Enfield, 2009](#)) as first pair part (combining a non-vocal sound and an address term line 1), followed by a second pair part enacted through the dog's gaze (line 2), thereby displaying a state of mutual awareness and allowing for an extended interaction to take place.

In all these three cases, the achievement of the summons/answer sequence by a sequence closing third includes either an embodied action (stroke in excerpt 5 and 6, smile in excerpt 4) or a verbal account (“oh” in excerpt 5). As mentioned earlier, summons/answer sequences are sometimes called “pre-sequences”, typically aimed at mobilizing reciprocity or attention ([Schegloff, 2007, 48](#)). They cannot stand alone. As [Schegloff, 1968: 1081](#)), in other words, they preface an interaction to come (or “participants obligate [themselves] to further interaction”, in that “they have an obligation [...] to continue the interaction, either by talk or bodily activity” (1968: 1083)). This is precisely what happens in excerpts 4–6.

This section has focused on a systematic sequence: a verbal turn or non-vocal sound uttered by a human participant as the first element in an adjacency pair followed by the animal's embodied response as a second element. One might argue that this has nothing to do with conditional relevance and is merely a behavioristic response to a conditioned order. However, it can

also be argued that taking a very behavioristic stance in the analysis of social interaction is not parsimonious.⁵ A more agnostic posture allows the identification of certain specific formats that are an integral part of everyday human–animal interactional routines—and clearly shows the interactants' orientation to recognizable social actions, to which they are socialized.

Another way to examine this is to look at sequences in which animals themselves initiate sequences. It is what I now turn to.

4.2. Initiating sequences: animals' actions as first pair part

The same types of sequences (request/compliance sequences and summons/answer pre-sequences), are examined in this section, but with a variation. This time, the animal initiates the sequence, beginning with an embodied first pair part, followed by the human verbal or, most of the time embodied, uptake in second pair part.

4.2.1. Requests: soliciting strokes

All dog or cat owners will be familiar with occasions when the animal looks insistently at its bowl, then at its owner, then at its bowl again, possibly vocalizing as it does so. This is what animal behaviorists refer to as “gaze alternation”, a prototypical feature of “showing behavior” (see Miklosi et al., 2000 for experimental studies).⁶ These cases are typical examples of animal-initiated-requests. Observation of the data also found instances of animal-initiated requests, not necessarily to obtain food, but more frequently to solicit strokings. As typical ways of getting someone to do something for you or with you, they could also be considered recruitment devices (Kendrick and Drew, 2016). Without entering into a terminological debate, I here explore several specific ways in which participants successfully display their reciprocal orientation to the accomplishment of a common action.

In an example examined in greater length elsewhere (Mondémé, 2020), the dog Hourra (HOU) approaches the human participant (Lisa, LIS) while gazing at her, configuring a mutual interactional space and positioning her body, especially the head, in a begging-for-strokes manner.

Excerpt 7. DOMUS_request for strokes

00'04'00



Image 7.1

00'06'00



Image 7.2

00'06'50



Image 7.3

00'07'00



Image 7.4

⁵ For a stimulating debate on these issues, see Whiten (1996).

⁶ “Showing behavior” is then defined as “a communicative action consisting of both a directional component related to an external target and an attention getting component that directs the attention of the perceiver to the informer or sender” (Miklosi et al., 2000: 159).

In this very short interaction, taking place in a context involving three human participants who are having a conversation (two were deliberately excluded from the images above, in order to focus on the relevant features of the human-dog interaction), the dog orients her trajectory toward Lisa while gazing at her (Image 7.1). As evidenced in Image 7.2, the dog comes into contact, putting her snout in Lisa's lap. Lisa notices the dog and they are looking at each other (Image 7.3). Half a second later, this is followed by a short stroke (a palm movement on the dog's head). Hourra and Lisa are mutually orientating toward each other (Image 7.4). A caress has been elicited through a variety of resources: approaching, gazing, touching—in a fashion that is pragmatically oriented to by the human participant as “begging for strokes”.

A somewhat similar case is shown below, with the exception that it involves a pony. Again, human participants (here Martin, MAR and Isabel, ISA) are having a conversation. More precisely, they are debriefing about a previous exercise. But during this debriefing, the horse moves closer to Martin and this will elicit a sequence of caresses:

Excerpt 8. EAA_request for strokes

NB: for the analytical interest resides mostly in the human-horse interaction, I provide first the images and then, as an additional support, the transcript including the verbal exchange – but I will not focus on it analytically.



Image 8.1



Image 8.2



Image 8.3



Image 8.4



Image 8.5



Image 8.6

1 MAR est-ce que t'as travaillé la dimension/ prise de décision/
did you manage to work on the decision making aspect
2 (1.6)
3 ISA euh: ou- oui dans la mesure où c'est moi qui ait
Uh yes in so far as I was the one who
4 demandé à c` qu'elle me sui:ve (0.5)\$ et qu'elle
asked her to follow me and to
5 s'arrête\ #im8.1 (.) à chaque fois *euh c-
stop every time so
QUI *.....->7
6 [c'é- c'était à ma demande] #im8.2
it was upon my request
7 MAR [donc sur l'arrêt *tu]vivais ça comme #im8.3
so you experienced it as
QUI -->*moves to MAR->10
8 une prise de défcision #im8.4
a decision-making
hands to QUI's forelock->9
9 ISA ouif
yes
MAR ->f
10 MAR ok* #im8.5 (0.7) étrès* bien\ #im8.6 ε
ok fine
QUI ->*head movement *
MAR hands above eyelidsf

This case is complex but it can be greatly simplified if we consider only the interaction between the trainer (MAR, in blue) and the pony (Quiny, QUI). The phenomena we are interested in happen quite independently of the verbal human interaction. In particular, lines 5–7 show the preparation of the pony's forward movement, with a slight weight shift from the back legs to the front legs (perceivable in [Image 8.2](#) in comparison to [Image 8.1](#)), prefacing the motion that actually happens in line 7 ([Image 8.3](#) shows evidence of the movement of the horse's right foreleg). In the course of speaking to the trainee Isabel, Martin simultaneously anticipates Quiny's trajectory and positions his hands in a way that will welcome the horse's head ([Image 8.4](#)). Accordingly, and with a head movement in his direction ([Image 8.5](#)) Quiny adjusts her body position so that they can engage in a sequence of mutual strokes. While verbally assessing the activity of debriefing (“fine”, aimed at the human audience, line 10), Martin finally engages in a deeper haptic moment of affectionate exchange with Quiny (he puts his hands on Quiny's eyelids, while she is closing her eyes).

The request per se is of course not formulated in words here, but is accomplished by the horse through behavioral means, including—if we identify discrete units—a first embodied pair part (coming closer and making contact) followed by a second pair part (the trainer places his hands on the horse and strokes her) reflexively displaying the “requesting” character of the first move.

It might of course be questionable to qualify these two cases as instances of request/compliance sequences, not only because they are strictly nonverbal and solely haptic—which in itself raises several critical issues—but because a skeptic could see them as a mere movement in the direction of the human with no particular content, design or formatting. Yet this way of approaching the head to position it at an appropriate place for a caress is recurrent and is found across all types of pets in data involving ordinary interspecies interactions. Moreover, it is crucial to note the specific way in which the human partner de facto orients towards the “requestness” ([Schegloff, 1999: 410](#)) of this action, which, as a last resort, constitutes the ultimate analytical proof procedure.

4.2.2. Pre-sequences: animal-initiated summons

To explore how animal actions occur in first pair part, I now turn to the S/A pre-sequence. In the following two excerpts, an animal opens an interaction by producing a summoning-like action. In excerpt 9, a dog gets her owners attention by visual and audible means, and in excerpt 10, a cat. This summons is responded to by the owner, and an extended interaction can take place (mostly greetings, accompanied by strokes in excerpt 9; and food distribution in excerpt 10).

Excerpt 9. DOMUS_paw on the window



Image 9.1

Image 9.2

Image 9.3

Image 9.4

Image 9.5

Image 9.6

In this rapid and nonverbal sequence, a family dog is in the garden while her owner works inside the house, on a mezzanine. At the beginning of the excerpt, the dog approaches a glass window (Image 9.1). After a short glance inside the house (Image 9.2), she puts her paw on the window (Image 9.3) and stands still, front legs on the doorstep. This waiting phase exhibited in Image 9.4 somehow shows the expectation of a response after an initiating action, and thus an orientation to conditional relevance. The owner finally arrives and opens the door (Image 9.5). Both engage in an affectionate exchange, involving verbal and haptic resources (Image 9.6).

The next example shows a similar case, this time with a cat. The family, composed of the mother (CEL), the father (present in the kitchen but not talking) and a 3-year-old boy (ETI) is getting ready for dinner. While the mother tries to put the boy's bib on, he walks around the table, crying and sniveling. One of the family cats is sitting in front of the patio door (as shown in Image 10.1):

Excerpt 10. DOMUS_cat at the door

1 CEL on va met[tre le:] bavoir
we're going to put the bib on

2 ETI [<hin hin] ((whining))>

3 *(1.0) #im10.1
ETI *approaches the patio door-->5

4 ETI £hinhin: #im10.2£
CAT £gazes at ETI and meows£

5 *(1.0) *(0.8) *(3.0) #im10.3 *
ETI *approaches the door*.....*opens the door*

6 (1.2) #im10.4
CAT *runs into the house->7

7 CAT meo:w*
-->*

8 (1.0)

9 ETI j'ai ouvert à mon tichat
I opened the door for my kittycat

10 CEL c'est bien\
that's good

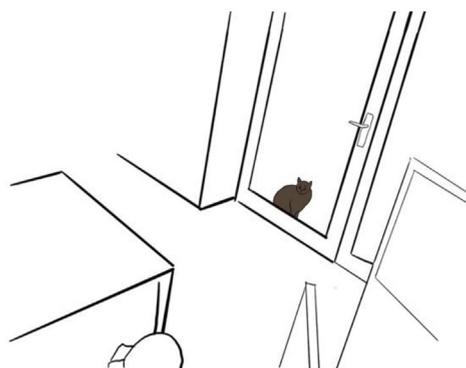


Image 10.1

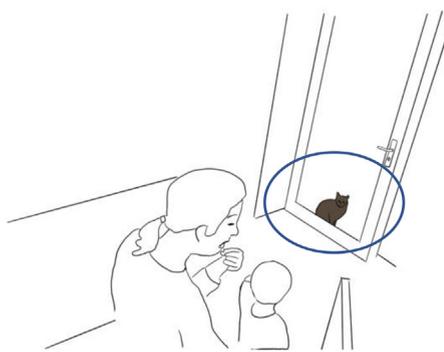


Image 10.2

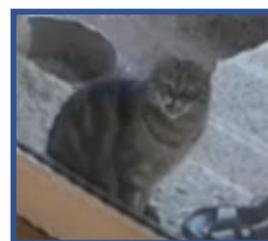


Image 10.2 bis

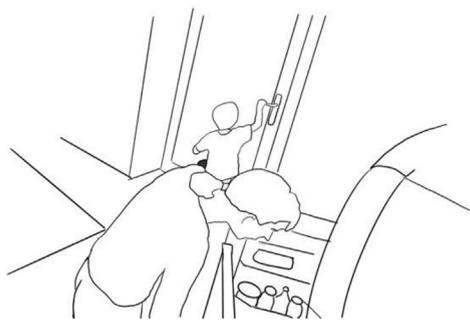


Image 10.3

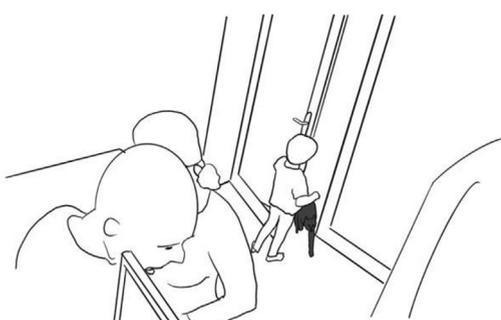


Image 10.4

At the beginning of the excerpt, the boy is walking around the table and resisting his mother's wish to put on his bib. As he is approaching the patio door, the cat gazes at him and meows (line 2, [Image 10.2](#) with a close up of the cat's meowing). The boy then reorients his trajectory in the direction of the door (line 5) and opens it ([Image 10.3](#)). Subsequently, the cat runs into the house ([Image 10.4](#)), while simultaneously producing a second meow (line 7). Stating "I opened the door for my kittycat" (line 9), the boy publicly announces his action to his parents. This pre-sequence allows the cat to reconfigure the family participation framework, and projects a new collective trajectory of action: feeding the cat.

In examples 9 and 10, a first pair part operating as a summons is enacted through various embodied displays (gaze + paw stroke in excerpt 9; gaze + meowing in excerpt 10). All contribute to the creation of a state of mutual awareness between the animal and the human participants, before an extended interaction can take place.

In their effectiveness at mobilizing reciprocity and attention, and at projecting further activities (also referred to as their "non-terminality"), the sequential positioning of these actions (gazing, pawing, meowing) complies with the basic characterization [Schegloff \(1968, 2007\)](#) gives to S/A sequences, although they do not have a verbal character, and are partly accomplished by non-human participants.

5. Discussion and conclusion

This study contributes to a line of research concerned with the organization of embodied resources for the accomplishment of basic social actions—such as securing one's reciprocity, requesting or soliciting, exhibiting affection, and so on—and explores these phenomena within human–animal social interaction. By doing so, it draws on the pragmatic axiom highlighted by [Enfield and Sidnell \(2022: 279\)](#) that "an action, in interaction, is fully consummated only by its relation to the result it engenders". Regardless of the technical or vernacular terminology used to label actions (i.e. whether we call them 'summons', 'request', 'answer'), human and animal participants show their mutual orientation to the same "courses of actions" ([Schegloff, 2007: 3](#)). The addressed parties adjust their conduct (verbal, vocal, embodied, or all of these) accordingly. In the analyses, I have observed how:

- (i) Animal participants *respond* to human participants. Regarding animals' uptakes as true second pair parts allows us to see how they are normatively oriented to the production of the first move, displaying forms of morality and intersubjectivity as [Mondémé \(2019\)](#), [Simonen and Lohi \(2021\)](#) and [Mondada and Mergueditchian \(2022\)](#) have shown in other contexts.
- (ii) Animal participants *initiate* actions that human participants orient to as the first pair part of a rule governed sequence. This shows the active role played by the animal participant in certain social interactions, countering the behavioristic view according to which animals are only mechanisms that react to stimuli ([Crist and Lynch, 1990 \[2022\]](#)).

The relevance of using terms initially coined to account for human conversational practices is a crucial and unescapable issue, especially as in many cases the formatting is neither syntactic nor prosodic, but only behavioral. Thus, instead of asking of "how to label these practices", I opt to explore "what they are doing". Following [Schegloff](#) (who, however, is critical of the very idea of embodied actions being sequentially organized in pairs⁷), I argue that a criterial feature for identifying a turn, well above grammar and phonetics, is action: or more precisely the fact "that it constitutes a recognizable action in context" ([Schegloff, 2007, p. 4](#)).

⁷ After mentioning a few instances of "initial utterance being done in talk and a responsive action being physically embodied," [Schegloff](#) adamantly asserts that "there is (...) no reliable empirical basis for treating physically realized actions as being in principle organized in adjacency pair terms, and this matter will, therefore, not have a place on our agenda" (2007: 11).

The article does not provide a clearcut answer to this debate, which also points to the exogenous nature of pragmatic categories inherited from Speech Act Theory (discussed in greater length by Kendrick and Drew, 2016: 3). This invites further reflection on the difficult nature of analysis in terms of adjacent pairs in these contexts. Couper-Kuhlen has raised concerns about the fact that “conditional relevance” should be considered a property solely of “focused interactions” (Couper-Kuhlen, 2010, p. 36) and restricted to situations where participants are “just talking”—which obviously, is not the case in this study. However, I hope to have engaged in her call to explore this wider and still little-known territory. Thus, without disregarding the potential « analytical poorness » of binary sequences,⁸ I argue that they are of interest in working out the notion of ‘nextness’ while rendering visible (potentially unexpected) phenomena of order. In this sense, they have a strong heuristic value. Along with other studies that challenge the conception of “architecture of intersubjectivity” as relying solely on sequences of turns-at-talk (Vatänen, 2021), I also hope this study may open up new lines of inquiry.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgment

Some of the data presented in this paper were collected within the MEDEQUIN project funded by the French Horse and Riding Institute (Institut Français du Cheval et de l'Équitation, IFCE).

Data availability

Data will be made available on request.

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⁸ Enfield & Sidnell argue that binary sequences can be viewed as poor models of interaction, and warn us that “most moves in interaction lack this clarity of design-to-action mapping”—as I also have experienced in working out the data analyzed here.

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