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PRESUPPOSITIONS, AFFORDANCES AND THE UNFOLDING OF CONVERSATIONS

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> "Observando la destreza de Tamara para cortar las verduras con las cuales prepararía un caldo vegetal, Conde llamó al Palomo desde la extensión telefónica colocada en la cocina. Cuando comunicó, la voz de Yoyi lo sorprendió por su capacidad de anticipación.
> —¿Dónde coño estabas metido, men? —soltó el otro.
> Conde hizo el gesto de mirar el auricular del teléfono.
> —Yoyi, a ti te llama media Habana..., ¿cómo coño tú sabías que era yo?
> —Ay, Conde..., el celular reconoce los números desde los que te llaman... Y en la pantalla que tienen, porque tú sabes que tienen una pantalla, ¿verdad?, pues apareció el nombre de Tamara porque..., ¡pero qué coño de conversación comemierda es esta, men!
> Conde sonrió ante la desesperación de su socio."
> Leonardo Padura, *La Transparencia del Tiempo*

Abstract: *This paper explores the intersection of semantic presuppositions and affordances, with a particular focus on how technological changes reshape the common ground in conversations. By analyzing examples of conversational oddities, the paper illustrates how the conditions for felicitous speech acts extend beyond linguistic structures into the social environment. The paper then investigates how changing technologies, like the shift from landlines to cell phones, alter the informational landscape of conversations. Drawing on examples from the C-ORAL-BRASIL corpus, it demonstrates how these changes impact the initial information available to interlocutors, influencing conversational appropriateness. Finally, the paper proposes a theoretical link between the semantic vocabulary of presuppositions and the theory of affordances, arguing that both constrain conversational and joint actions by shaping what is taken for granted in specific contexts. One consequence of this view is that Stalnaker's account of presuppositions as beliefs is insufficient to capture everything that is taken for granted in the structure of a conversation. The paper offers a richer understanding of how conversations unfold in response to diverse informational constraints.*

Keywords: Presupposition; Affordance; Pragmatics; Common Ground; Telephone Call.

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1 Introduction

Every conversation unfolds against a backdrop of many presupposed elements. What is presupposed can take various forms, ranging from presuppositions triggered by specific linguistic constructions to the evolution of the common ground during the interaction. This evolution reflects the cumulative nature of conversations, which can occur even within the utterance of a single sentence. Consider the following example:

1. All of Fred's children are asleep, and *Fred has children.

The first conjunct *All of Fred's children are asleep* triggers the presupposition that Fred has children, which is added to the common ground before the utterance of the second conjunct, i.e., *Fred has children*. The second conjunct in (1) provides information that is already part of the common ground, making its utterance odd – it is "peculiar to say it", in David Lewis' words, because "the second part adds nothing to what is already presupposed when it is said." (Lewis 1979, p. 339)

The appropriateness of each conversational move, as a function of the evolution of the common ground, requires each participant to keep track of the interactions up to a given point — a process Lewis refers to as *scorekeeping*. In an utterance of (1), the interpreter can read the incremental construction of the common ground off the linguistic structure: upon hearing *All of Fred's children are asleep...*, the interpreter introduces in the common ground the information that Fred has children.

What is taken as given does not need to be linguistically articulated, nor, more generally, to result from an ostensive communicative gesture. Information can be part of the environment. Environmental information can be manifest in various forms: a badge, a uniform, a location etc. Imagine that you enter a store, see someone wearing a uniform, and ask:

2. * Do you work here?
3. >> I am uncertain about your functional role.

The utterance of (2) is inappropriate because it presupposes (3), and (3) contradicts a piece of information that is present in the environment. The utterances of the second conjunct of (1) and that of (2) are inappropriate because they go against something that was already part of the common ground, or at least expected to be part of the common ground. However, the accounts of these inappropriate utterances are distinct: while the former is explained in purely linguistic terms, the latter depends on the exploitation of environmental information. It is not always easy to keep apart environmental and linguistic information, among other things, because the action landscape, in the apt expression of Erik Rietveld and Julian Kiverstein (Rietveld & Kiverstein, 2014), is partially created by linguistic contributions.

The primary aim of this paper is to explore how technological changes may influence the construction of common ground, thereby altering the constraints on appropriate conversational moves. While this may seem straightforward, I believe it is valuable to establish a connection between the constraints that can be read off linguistic structures, constraints to which every competent speaker of a language is expected to respond, and those arising from environmental information to which agents may be variably attuned. Put differently, I seek to propose a link between the semantic vocabulary of presupposition and the interpretation of actions through the concept of affordances.

One consequence of this approach is that Stalnaker's view of presuppositions as beliefs does not fully capture all aspects of what is taken for granted in the unfolding of a conversation. In many cases, environmental information to which agents are—or are expected to be—attuned is better understood as affordances provided by the environment, rather than as something they represent.

In Section 2, we will examine examples of speech acts that exploit affordances provided by the environment to properly attuned agents. Agents interpret both linguistic and nonlinguistic cues as they decide what to say in each situation. In the next section, we will explore how changing

technologies may introduce different constraints on what constitutes a proper conversational move. These two sections aim to demonstrate that appropriate speech acts are also appropriate actions, whose conditions extend far beyond what can be read off linguistic constructions. In Section 4, examples of telephone calls from the C-ORAL-BRASIL corpus will illustrate how conversations unfold differently depending on whether agents are using landlines or cell phones. In the final section, I will propose a connection between these two vocabularies — namely, the vocabulary of presuppositions and the theory of affordances.

2 Conversational landscapes

The action landscape is constituted by a set of affordances. An affordance is an opportunity for an agent to act. Different kinds of agents respond differently to the same environment and therefore have different affordances – affordances are properties of the animal-environment system, as Thomas A. Stoffregen explains:[1] a tree offers different affordances, that is, different possibilities for actions, to a bird, to a monkey and to a dog. In different ways, the shape of linguistic contributions is explained by what is available in the environment. Consider, for instance, the opening of the following conversation from the C-ORAL-BRASIL corpus:[2,3]

*JAN: [4] eu quero uma sandália / baixa //$	*JAN: [4] *I want a flip flop* //$
*EUG: [5] do jeito dessa que cê tá usando //$	*EUG: [5] *like the one you're wearing* //$

Plenty of things are assumed by the participants in this dialogue: their respective roles, that flip flops are for sale, that the buyer can choose what she wants etc. In uttering (5), EUG exploits not only what is present in a shoe store environment, but also what is made available by (4): he utters a subsentential fragment, the complete content of which is '[do you want a flip flop] like the one you're wearing?'. In the opening of this dialogue, we see how properly attuned agents exploit both linguistic and nonlinguistic clues.[4]

Different kinds of agents perceive different possibilities for actions in the same external environment: a bird, a monkey and a dog, that perceive a lot of affordances around a tree, do not see much to do in a store *qua* store, although they may see other things to do in the same space. Humans, who are attuned to the normative structure of a store, on the other hand, know what to do in a store *qua* store. The normative structure establishes different roles for people and things – what is expected from buyers and from sellers, what happens to the objects involved in the transaction etc. A thief also perceives possibilities for actions that are constrained by the normative structure proper to a store and takes on a different role.

Affordances for birds, monkeys and dogs can be stated at the level of kinds of agents, but that is not enough for human actions. Different human agents respond differently to similarly perceived normative structures, not only by taking on different roles, but also by having different understandings of a normative structure, maybe having an incomplete grasp of it, or missing it altogether.[5] That's why there are different explanations for an inappropriate utterance of (2). The utterer of this sentence in a store situation may:

a) have thought that the interlocutor is not the sort of person that works in this sort of place.
b) not have seen that the interlocutor was wearing a uniform.
c) not have seen that it was a uniform.
d) not know what a uniform is.

[1] Stoffregen 2003.
[2] This example come from Raso; Mello 2012, and is designated by the name of the file.
[3] bpubdl02
[4] On compound contributions exploiting linguistic affordances, see Purver et al. 2014; on subsentential utterances, see Perini-Santos 2023.
[5] I realize that this may not be fair to other animals, but it is not difficult to give a more nuanced description of affordances for birds, monkeys, and dogs as individuals.

In (a), the question may be felt as an offense, but maybe the utterer of (2) is myopic, (b), or is not used to the sort of uniform the person is wearing, (c), or maybe not even know what uniforms are, (d). In the cases (b) to (d), no offense is to be taken.

The sort of linguistic contribution that is appropriate at a given point in a conversation depends on what sort of information is available to properly attuned agents. Speech acts may be inappropriate for a variety of reasons, which are tracked by different conditions on their felicity. Some of these conditions can be read off linguistic constructions, as in (1), but this is not always the case: if the explanation of the inappropriateness of (2) is (c) or (d), what the agent has missed is not inscribed in linguistic structures, but in the social environment at large.

3 Technological changes and the construction of the common ground

When you take an Uber, you are not expected to say where you want to go: this information is already established before you start the face-to-face interaction with the driver. You may identify yourself, to assure that you are not taking someone else's ride. If you take a taxi, on the other hand, you have to say where you want to go, and it would be awkward to say your name as you enter the car. In both cases, the respective roles are fixed – you are the passenger, so you determine the destination, you pay, and you leave the car at the end of the ride, while the driver goes where you want to go, receives the payment and stays in the car when you arrive at the destination. If you want to take a ride with a friend, your role as a passenger is negotiated, although your friend's role as a driver is fixed, you may have a partial saying on the destination, and no payment is involved. [6]

Let us call what is available before the face-to-face interaction starts *the initial information*: the destination is part of the initial information in the Uber situation, but not in a taxi situation, the roles of driver and passenger are part of the initial information in both cases, but not in a ride situation.[7] The contrast between the Uber and the taxi situations stems from a technological change. It influences what is an appropriate linguistic contribution, among other things, because it has an effect on the initial informational state. It would be a bit odd to enter an Uber vehicle and say

6. I want to go to Copacabana.

As Lewis says about (1), it would be "peculiar to say it", because it "adds nothing to what is already presupposed when it is said." In the Uber situation, the conversation starts before the face-to-face interaction begins, when the destination has already been introduced in the common ground. Someone who knows how Uber interactions work would not say (6). That requires being attuned to what is appropriate to this sort of environment, that is, knowing the difference between an Uber and a taxi. Well, everyone knows that, isn't it? Not sure. Anyway, we should not take for granted that every agent knows equally well what an appropriate action in every environment is, whether there is a change induced by a new technology or for any other reason.

4 Changing landscape in telephone calls

The quote from Leonardo Padura's novel *La Transparencia del Tiempo*, which opens this paper, illustrates how an agent may fail to adapt to changes in the informational environment brought about by technological advancements. Mario Conde, Padura's detective, is unaware of the features available on a cell phone before the call begins. Conde has landlines in mind, which do not reveal the identity of the caller beforehand. Conversely, the flow of information about the interlocutor's location is reversed: in a landline call, the caller knows where the interlocutor is, whereas in a cell phone call, this information is not available at the beginning of the conversation.

This is, at least, what is typically the case. The identification of the caller in a cell phone might be needed, or, in any case, not be redundant, for a variety of reasons: the phone number is not registered in the phone receiving the call, the cell phone is used by more than one person etc. Likewise, the caller may seek more specific information about the location of a landline ('are you

[6] Ride apps introduce other constraints on what agents are expected to do, creating thereby other affordances.

[7] On this use of *situation*, see Perini-Santos 2023; 2025.

in the living room?'), and the identification of the caller may be evident to the receiver (only one person uses the phone, the receiver recognizes the voice etc). Nevertheless, there are constraints on conversational moves in each case that stems from the sort of technology being used.

C-ORAL-BRASIL has a very interesting corpus of phone calls. Unfortunately, it doesn't have the information about the technology being used. We can only surmise whether each participant in the conversation is using a cell phone or a landline (assuming that they are attuned to the difference between these technologies!) Here are some stretches of conversations in which we can see different constraints on conversational moves concerning the location of the callers.[8]

A)[9]

*RMS: [7] daqui a pouco eu tô lá // aí eu qualquer &co + **cê tá na oficina** // *RLS: [8] **eu / eu tô não / tô / tô / <aqui> &pres / tô / tô aqui na Cidade &Ind / perto da Cidade <Industrial>**	*RMS: [7] in a little while I'll be there // then any & + **you're in the workshop** // *RLS: [8] **I / I'm not / I'm / I'm / <here> &near / I'm / I'm here in the *Cidade* &Ind / near the *Cidade* <Industrial>**

B)[10]

*ISA: [9] tudo bem **//$[10] deixa eu te perguntar //$[11] papai tá por aí //$** ***TER: [12] deu uma saidinha aqui / que e' foi comprar um pepino aqui pra mim //$** *ISA: [13] ah / então tá bom //$[14] a hora que ele voltar / pede pra ele me ligar aqui por favor / vó //$	*ISA: [9] all right **//$[10] let me ask you //$[11] daddy's around //$** ***TER: [12] he went out to buy a cucumber for me //$** *ISA: [13] ah / okay //$[14] when he gets back / ask him to call me here please / grandma //$

C)[11]

*JOA: [15] alô // [16] Gelito //$ *GER: [17] é o Gelito //$ *JOA: [18] é o João //$[19] tá bom //$ *GER: [20] tudo bom / João //$ *JOA: [21] &jo +**$[22] o Saulo tá aí //$** *GER: [23] ah //$[24] só um minutinho //$ *JOA: [25] tá jóia //$[26] <brigado> //$ *GER: [27] <Saulo> //$ *SAU: [28] alô //$ *JOA: [29] ei / Saulo //$ *SAU: [30] ei / João //$ *JOA: [31] tá bom //$ *SAU: [32] jóia //$ *JOA: [33] vi sua mensagem / agora //$[34] eu tava dirigindo //$ *SAU: [35] <ai cê tá> +$ *JOA: [36] <eu cheguei> / de Belo Horizonte //$[37] desmaiei //$ [38] porque pressão baixou //$[39] porque eu achei que nũ fosse	*JOA: [15] hello // [16] Gelito //$ *GER: [17] it's Gelito //$ *JOA: [18] it's João //$ [19] okay //$ *GER: [20] okay / João //$ *JOA: [21] &jo +**$[22] Saulo is there //$** *GER: [23] ah //$[24] just a minute //$ *JOA: [25] yeah //$[26] <thanks> //$ *GER: [27] <Saulo> //$ *SAU: [28] hello //$ *JOA: [29] hey / Saulo //$ *SAU: [30] hey / João //$ *JOA: [31] okay //$ *SAU: [32] great //$ *JOA: [33] I saw your message / now //$ [34] I was driving //$ *SAU: [35] <you are> +$ *JOA: [36] <I arrived> / from Belo Horizonte //$[37] I fainted //$ [38] because my blood pressure dropped //$[39] because I thought it

[8] The following examples come from Raso; Mello; Ferrari, in press, and are designated by the name of the file.
[9] btelpb18
[10] btelpv42
[11] btelpv49

tá muito quente assim //$[40] aí / recuperei agora **//$[41] saí com a minha avó / pra comprar um presente //$[42] esqueci o quê //$[43] cê acha que eu esqueci //$[44] tô na rua com ela //$**	wouldn't be that hot //$[40] then / I recovered now **//$[41] I went out with my grandmother / to buy a present //$[42] I forgot what //$[43] do you think I forgot //$[44] I'm on the street with her //$**

D)[12]

*VIV: [45] Fundação Torino / Viviane / bom dia //$ *LUC: [46] bom dia / Viviane //$ **[47] aí é da portaria //$** *VIV: [48] isso //$	*VIV: [45] Fundação Torino / Viviane / good morning //$ *LUC: [46] Good morning / Viviane //$ **[47] is it the reception //$** *VIV: [48] yes //$

In example (A), RLS is speaking from a cell phone, as the information about his location in (8) is not redundant. In example (B), the receiver is speaking from a landline (10–12). The third conversation involves a call from a cell phone to a landline: JOA wants to speak to someone located at the telephone's physical location (22), while his own location is not part of the information available to SAU (41–44). The opening of example (D) demonstrates how someone speaking to a landline may still seek more specific information about the interlocutor's location, in (47).

Cell phones and landlines put different constraints on the construction of the common ground, essentially because they (typically) have different initial information. Tomasello explains this point as follows:

> Importantly, for all types of human communication including language, the relationship between the overt communication act and common ground—of whatever type — is complementary. That is, as more can be assumed to be shared between communicator and recipient, less needs to be overtly expressed. (Tomasello, 2008, p.79)

This general principle explains what happens in the transition between landlines and cell phones. While this is probably obvious, there is a theoretical interest in pointing this out, or so I will argue in the next section.

5 Concluding Remarks: Putting together different vocabularies

Presuppositions triggered by linguistic constructions are encoded in the meanings of words. A competent speaker of a language recognizes the oddity of sentences such as (1), just as it feels awkward (if possible at all) to evaluate an utterance in a context where its presuppositions are not fulfilled. However, not everything assumed in a conversation is semantically encoded. As Robert Stalnaker's pragmatic analysis highlights, "presuppositions <…> are something like the background beliefs of the speaker —propositions whose truth he takes for granted, or seems to take for granted, in making his statement" (Stalnaker 1999, p. 48).

This pragmatic view aligns closely with the framework I propose: what is taken for granted in a taxi situation versus an Uber situation, or in conversations involving cell phones versus landlines, consists of background assumptions that constrain the proper unfolding of a conversation. But are these truly beliefs? Philosophically, they seem closer to subpersonal processes—or, put differently, to factors that influence behavior without being explicitly represented. People are attuned to distinct normative structures when they enter a store, take a taxi or an Uber, and they expect different kinds of initial information when conversing via cell phones versus landlines. This aligns with the concept of affordances: possibilities for action embedded in the environment and directly perceived by agents who are appropriately attuned.

[12] btelpb15

There have been proposals to apply the concept of affordances to the study of linguistic behavior, as seen in the work of Elena Gregoromichelaki and colleagues (e.g., Gregoromichelaki et al. 2020). I propose linking the discussion of presuppositions to a theory of constraints on human actions—specifically, to how affordances shape these constraints in the unfolding of conversations. While the semantic dimensions of presuppositions and the structure of human actions differ significantly, viewing conversations as forms of joint action naturally integrates these different types of constraints.

The similarity between the vocabulary of presuppositions and that of affordances lies in their ability to explain the oddness of conversations in which one participant fails to acknowledge something taken for granted — such as in examples (1), (2), and (6) above. Moreover, affordances illuminate linguistic behavior by highlighting differences in conversational dynamics, such as those between cell phone and landline use, as illustrated by examples from C-ORAL BRASIL. These scenarios reveal specific (and defeasible) informational constraints that underlie the affordances exploited by properly attuned agents.

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