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# An empirical study on the semantics-pragmatics of two Romance confirmational tags

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## Abstract

This paper provides a fine-grained characterization of two confirmational tags in Catalan, *oi?* and *eh?*, starting with the novel claim that, despite appearances, they do not have the same distribution or meaning. While *oi?* is a rather unconstrained confirmational, *eh?* is proved to be sensitive to whether the main predicate of the sentence anchor *p* is objective or subjective. We ultimately propose that confirmational questions with *oi?* make a request for confirmation of the truth of the sentence anchor, whereas a confirmational with *eh?* is a request for the commitment of the addressee to the truth of the sentence anchor. Two consequences emerge from our analysis: *oi?* should be preferred when factual truths instead of opinions are conveyed, while *eh?* should be preferred in contexts where the speaker is not necessarily interested in finding out the truth of *p*. These predictions are tested in three experimental studies, which provide empirical support for the theoretical proposal regarding the different pragmatic contribution of both tags.

**Keywords:** question tags, confirmational tags, biased questions, Catalan, experimental pragmatics

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## 1. Introduction

Interrogative clauses come in various sorts cross-linguistically. Differences can be established according to their syntactic form, semantic denotation, etc., if we attend to the form. However, if we attend to the prototypical use of an interrogative clause, questions can also be classified on the basis of the degree of certainty held by the speaker when uttering such a sentence. In canonical questions, the speaker is ignorant with respect to the proposition that corresponds to the true answer to the question – in line with mainstream semantic analyses, the speaker has not chosen which one of the alternatives denoted by the question is true. By contrast, in non-canonical questions, this balance is lost, whereby the speaker has a higher degree of certainty with respect to one of the alternatives. Among non-canonical or *biased* questions, differences arise too. For starters, biased questions come in various syntactic forms. For instance, negative questions in English, such as (1), have received a lot of attention in the past (Domaneschi et al., 2017; Gunlogson & Buring, 2001; Ladd, 1981; Romero & Han, 2004; Sudo, 2013). In (1), the speaker utters a polar question with a syntactically high negation, and while the denotation of the question is arguably the set {there is a vegetarian restaurant, there isn't a vegetarian restaurant} (Groenendijk & Stokhof, 1984; Karttunen, 1977), the sentence is felicitous in two different contexts, (2) and (3) (Domaneschi et al., 2017; Ladd, 1981).

- (1) English, Ladd (1981)  
Isn't there a vegetarian restaurant around here?
- (2) English, Domaneschi et al. (2017: 3)  
A: You guys must be starving. You want to get something to eat?  
B: Isn't there a vegetarian restaurant nearby?
- (3) English, Domaneschi et al. (2017: 3)  
A: I'd like to take you guys out for dinner while I'm here – we'd have time to go somewhere around here before the evening session tonight, don't you think?  
B: I guess, but there's not really a place to go in Hyde Park.  
A: Oh, really, isn't there a vegetarian restaurant around here?

Arguably, in (2), B wants to double-check  $p$  (i.e., that there is a good vegetarian restaurant), and in (3), A wants to double-check the opposite proposition,  $\neg p$  (i.e., that there is not a good vegetarian restaurant).

In this paper, our focus is on confirmational questions, which are biased questions composed of a declarative clause followed up by a particle, prompting an affirmative answer from the addressee (Cattell, 1973; Farkas & Roelofsen, 2017; Krifka, 2015; Malamud & Stephenson, 2015; Reese & Asher, 2009). An example is found in (4).

- (4) English, Malamud & Stephenson (2015: 279)  
John is attractive, isn't he?

Specifically, the object of the present study are confirmational questions in Catalan that contain the particles *oi?* and *eh?*, (5), two confirmational tags that so far

have been treated in the literature as being interchangeable both syntactically and semantically.

- (5) Catalan  
 La Sònia és fantàstica, oi? / eh?  
 ‘Sonia is fantastic, oi? / eh?’

The goal of this paper is to provide a fine-grained characterization of the semantic-pragmatic contribution of these two confirmational particles. In particular, we want to argue in favor of a meaningful divide between *oi?* and *eh?* by contributing empirical data, and subsequently integrate the behavior of these tags in a formal theory of questions and answers.

Our claims are the following: first, *oi?* and *eh?* do not make the same semantic contribution, but this difference is not analogous to other pairs of better-known confirmational particles, such as English same- and reverse-polarity tags, illustrated in (6). The critical data point to support this claim is in (7), where we illustrate that *eh?* seems to have a more constrained distribution than *oi?*

- (6) English, Malamud & Stephenson (2015: 276)  
 a. Sue likes licorice, doesn’t she? (Reverse Polarity Tag)  
 b. Sue likes licorice, does she? (Same Polarity Tag)
- (7) Catalan  
 La Terra és rodona, oi? / #eh?  
 ‘The Earth is round, oi?/eh?’

Concerning *oi?*, we propose that it is uttered by a speaker who is interested in resolving whether the proposition *p* denoted by the preceding declarative (the sentence anchor) is true and who has a high degree of certainty in the truth of this proposition. In fact, a negative answer would be unlikely from the perspective of the speaker. This makes *oi?* different from the English reverse polarity tag or Catalan *no?*. With respect to *eh?*, it is different from *oi?* in that the speaker uses it to encourage the addressee to include *p* among his public commitments; it is typically employed by a speaker who has evidence that the addressee privately endorses *p* and asks him to publicly commit to it (i.e., to be open about it). This attributive role makes *eh?* similar to the English same polarity tag, but unlike it, the speaker who uses *eh?* is not trying to guess a proposition attributed to the addressee, but to request that he makes this commitment public. In view of this different divide, the characterizations and analyses in the previous literature cannot extend to the Catalan case. We will also consider the felicity conditions of other invariant tags, such as Canadian *eh?* and Swabian *gell?*, to conclude that each one makes a different contribution. The characterization based on introspection data makes specific hypotheses that will be empirically tested through three experimental tasks.

The paper is organized as follows: in the next section we contextualize the study of tags and confirmationals in semantics and pragmatics. In section 3 we characterize the semantics-pragmatics of the Catalan confirmationals by means of minimal pairs obtained by introspection and lay out hypotheses concerning the distribution of the confirmationals, which can be tested experimentally. Section 4 is devoted to the empirical study, through which we have collected data from three

experimental tasks. Section 5 covers the general discussion of the collected data as well as the concluding remarks.

## 2. Question tags and confirmationals

Tags make one of the several types of non-canonical interrogatives, in the sense that they induce a biased question, whereby the first speaker in a conversation of two (S1 henceforth) deems the denotation of the sentence anchor (i.e., the declarative sentence preceding the tag, let us call it  $p$ ) as the more likely answer to the question. These tags are usually used to request confirmation of  $p$ , a notion that we aim to qualify in this article. There are two main types of tags: variable and invariable. Variable tags are polarity-based, like English *isn't it?/is it?* (Cattell, 1973; Farkas & Roelofsen, 2017; Gómez González & Dehé, 2020; Krifka, 2015; Malamud & Stephenson, 2015; Reese & Asher, 2010). Invariable tags are characterized as sentence-final particles that are not polarity-based and are invariant, like English *right?*, French *hein?* or Catalan *oi?* and *eh?*. We will refer to them as *confirmationals* following the lead of Columbus (2010), Heim et al. (2016), Heim & Wiltschko (2020), and Wiltschko & Heim (2016, 2020).

Tag questions are composed of a sentence anchor and a tag, each one making its own illocutionary act. Question tags and confirmationals have an intersubjective function in that they engage with the addressee, although the specificity of these functions – whether it is an invitation to confirm or a request to agree, to mention two options – and felicity conditions of each tag and confirmational crosslinguistically is not alike (Gómez González & Dehé, 2020; Kimps, 2018). The distribution of the various conformational tags relies on contextual variables, such as the epistemic state of S1 (i.e., her degree of certainty about the truth of  $p$ ), whether  $p$  is attributed to S1 or to the interlocutor (henceforth S2), the plausibility of a negative answer, etc. Consequently, we expect that different confirmationals may have different felicity conditions and, hence, we can encounter contexts in which some tags are available while others are not. This is how we can determine the different functions of a tag or the possibility of more than one function in a tag. For instance, let us report on the pragmatic functions of West Canadian English *eh?* as compared to *huh?* and *right?*, analyzed by Wiltschko and Heim in the aforementioned work. Consider the two sets of contexts in (8) and (9) (Wiltschko & Heim 2016).

- (8) West Canadian English, Wiltschko & Heim (2016: 309)  
 [John knows that Mary would like to have a new dog. He hasn't seen her in a long time. And he keeps wondering whether she got a new dog. One day he runs into her while she's walking a new puppy. John utters:]  
 You have a new dog, {eh/huh/right}?  
 = Confirm that  $p$  is true
- (9) West Canadian English, Wiltschko & Heim (2016: 309)  
 [Mary is walking her new dog when she runs into John. She is expecting that he would congratulate her on the new dog, but he's not mentioning it. She isn't sure anymore whether he actually realizes that she has a new dog. So she utters:]  
 I have a new dog, {eh/\*huh/\*right}?  
 = Confirm that you know that  $p$  is true

On the basis of the previous examples, Heim and Wiltschko argue that *eh?* can request confirmation of two different propositions. (8) would be felicitous in a context where S1 is targeting the truth of the sentence anchor, while (9) would be rather felicitous in a context where S1 is targeting the assumption that S2 knows that *p* is true. That is, whereas in (8) S1 is checking whether S2 has a new dog (in which case the sentence would be interchangeable with confirmational tags such as *right?*), in (9) she would be checking whether S2 knows that S1 has a dog. Importantly, this divide is mapped into different syntactic structures in Heim and Wiltschko's analysis depending on whether the target is the proposition or a higher projection, namely a grounding layer (Wiltschko, 2014, 2021).

Another recently studied confirmational tag is Swabian particle *gell* (Heim, 2019). *Gell* occurs both sentence initially and sentence final, and in the two cases it has an intersubjective function. Leaving aside what the author calls *narrative contexts*, in dialogic contexts, when *gell* occurs at the sentence periphery, it fulfils two different functions, which are illustrated in the two contexts below (Heim 2019).

- (10) Swabian, Heim (2019: 133)  
 [Max moves into a new home. He struggles to understand the specifics about the cleaning rules. On the due day, he enquires from another tenant about his responsibilities.]  
 Am Samschdich wird hier d'Kehrwoch g'macht,  
 gell?  
 On Saturday be here the sweep-cleaning done  
 PRT  
 'On Saturdays, we do the sweep-cleaning here, huh?
- (11) Swabian, Heim (2019: 133)  
 [Max moves into a new home. He struggles to understand the specifics about the cleaning rules. On the next due day, another tenant reminds him of his responsibilities.]  
 Am Samschdich wird hier d'Kehrwoch g'macht, gell!  
 On Saturday be here the sweep-cleaning done PRT  
 'On Saturdays, we do the sweep-cleaning here, huh?'

According to Heim (2019), (10) illustrates request of confirmation of the truth of the sentence anchor (called requesting flavor); in this particular case, that Saturdays are cleaning days. In this use, S1 lacks the certainty of the truth of *p* and S2 is the source of knowledge (Gunlogson, 2008). By contrast, (11) exemplifies the demand of confirmation of the fact that S1 is the source of the proposition denoted by the sentence anchor (called demanding function); that is, S1 asks S2 to acknowledge that S1 knows that Saturdays are cleaning days. Hence, based on these contexts, it can be argued that the same particle has two different functions.

In the two previous examples of confirmational tags, determining whether S1 or S2 is the source of knowledge and which segment is the target of the confirmational – the proposition denoted by the sentence anchor or S2's knowledge – seems to be key in the characterization of their distribution and functions. Let us now turn to the description and analysis of two Catalan confirmational tags which are the focus of this paper.

### 3. Confirmationals in Catalan

Before delving into the empirical studies, the goal of this section is to report the little existing previous formal literature on these tags, and then to provide novel empirical observations obtained from introspection that characterize the different behavior of the two confirmationals.

#### 3.1. Previous literature

The previous literature treats Catalan tags as an example of rich dialectal variation. In the case at point, *oi?* has been found to be present in Central Catalan (the Catalan spoken in the broad Barcelona area, but excluding Girona), and *eh?* is found in Central Catalan, Western Catalan and Rossellonese (Cuenca, 1997; Hernanz & Rigau, 2006; Prieto & Rigau, 2007; Rigau, 1998). Hence, Central Catalan has both, and it has been assumed that these particles, which can also occur pre-sententially, are synonymous. This is illustrated in (12) below.

- (12) Catalan, Hernanz & Rigau (2006)
- a. {Oi, eh} que tens gana?  
oi,eh that have.2SG hunger
- b. Tens gana, {oi, eh}?  
have-2SG hunger {oi, eh}  
'You are hungry, {oi, eh}?'

Concerning the syntactic analysis, Hernanz & Rigau (2006) proposed that such “question tag particles” – including *oi*, *eh* and *no* – occupy Spec,ForceP, since they can be viewed as question modifiers. This proposal also builds on the fact that pre-sentential confirmationals precede the complementizer *que*, which generally introduces complement clauses, but which can also head a polar question in Catalan. *Que* would occupy Force, along the lines of (13). Nothing is said about the sentence final version of these confirmationals, though. Note that when they appear sentence-finally, there are no syntactic arguments in favor of analyzing the sentence anchor as an interrogative clause – the complementizer *que* does not occur preceding the sentence; it is a declarative clause.

- (13) [<sub>ForceP</sub> [<sub>Spec</sub> {oi, eh, no, ...} ] [<sub>Force'</sub> [<sub>Force</sub> que ('that') ] FinP ] ]

Finally, Hernanz & Rigau assume that sentences such as (12) are confirmational questions that “presuppose an affirmative answer from the addressee”.

In view of the fact that Central Catalan has the two confirmationals and that there is no insight regarding the ways in which they may differ – or actually whether they differ at all – the goal of this paper consists in providing a fine-grained characterization of the contexts that license each confirmational and supporting these theoretical insights with empirical arguments.

#### 3.2 Novel (introspection) data

In the following we propose different situations that seem relevant to show a different distribution between *oi?* and *eh?*. But before moving on, there is a *caveat*: as shown by Castroviejo (2018) and Cuenca & Castellà (1995), *eh?* is an ambiguous particle

which has several uses. Our study of Catalan *eh?* is limited to one of these uses, which we will call Type 1. However, there is another use, Type 2, which does not share any properties with confirmational *oi?* and *no?*, but which is rather similar in meaning to *ok?* and possibly the function exemplified by *gell* in (11).<sup>1</sup> Let us illustrate this difference with two examples: while in (14), S1 expects an answer from S2, in (15) she does not; she is merely asking S2 to take note of her assertion. In (15) S1 knows that the proposition denoted by the sentence anchor is true and she wants S2 to also be aware of it, while in (14), S1 wants S2 to voice her opinion, as we will develop shortly.

- (14) [Eli is talking to Alex, who is apparently in love with Sònia, but won't dare to be open about it.]

Eli: La Sònia és fantàstica, eh?

'Eli: Sonia is fantastic, eh?'

Type 1

- (15) [Eli is talking to Alex, who is not aware of where the cava glasses are. Eli believes Alex should have this piece of information.]

Eli: Les copes de cava són a l'armari dret, eh?

'Eli: The cava cups are in the cabinet to the right, eh?'

Type 2

Going back to the divide between *oi?* and *eh?*, we want to argue that one apparent relevant divide between the contexts licensing the two confirmational is that of opinions v. facts. Recall from (5), repeated below for convenience, that both are felicitous with subjective predicates.

- (16) La Sònia és fantàstica, {oi?, eh?}  
'Sonia is fantastic, {oi?, eh?}'

However, as anticipated in (7), repeated as (17), we observe a lack of parallelism when the proposition denoted by the anchor presents a fact rather than an opinion.

- (17) La Terra és rodona, {oi?, #eh?}  
'The Earth is round, {oi?, #eh?}'

The distinction between facts and opinions may not be the exact characterization of the phenomenon, though, since there are other kinds of facts that are indeed possible with *eh?*, as illustrated in (18).

- (18) T'has tallat els cabells, oi? / eh?  
'You had your hair cut, {oi?, eh?}'

<sup>1</sup> In fact, Type 2 *eh?* is also compatible with imperatives, just like the *gell* particle in its demand of confirmation function. This is illustrated below:

- (i) Arriba a l'hora, eh?  
'Be on time, eh?'

What distinguishes the facts in (17) and (18) is that the former illustrates an encyclopedic truth, to which in principle anyone has independent access;<sup>2</sup> by contrast, the latter describes a situation about which S2 is in principle in a better position than S1 to know the truth, because he has a personal involvement with it (S2 can know better than S1 whether or not he got a haircut).

Following up on this, contexts that entail an experiential component such as (19) are capable of revealing two different interpretations of these confirmational. If (19) is followed up by *oi?*, it could be uttered by a client at a hardware store seeking to renew her apartment floors and addressing a salesperson, who knows about the hardness of floor types on the basis of his expertise. If, by contrast, the sentence anchor is followed up by *eh?*, the prototypical scenario would be one where S1 is mocking S2, because he has fallen on the floor, so he knows that it is indeed hard because of his own experience.

- (19) El terra és dur, *oi?* / *eh?*  
 ‘The floor is hard, {*oi?*, *eh?*}’

Finally, if we now move on to vague predicates, it is interesting to realize that *oi?* can be used to inquire whether the subject meets the standard of ADJ-ness or whether the subject informs us about the standard of ADJ-ness (Barker, 2002; Malamud & Stephenson, 2015). That is, following Barker (2002), when we utter the assertion *Sira is smart*, we can convey two messages depending on whether *smart* is used descriptively or metalinguistically. In the former, we convey that Sira meets the standard for smartness. In the latter we already know that Sira is smart and we inform the hearer about the standard for smartness in a specific region or circumstance. Interestingly, these two types of meanings are preserved with *oi?*, while the latter is lost with *eh?*.

- (20) La Sira és llesta, {*oi?*, *eh?*}  
 ‘Sira is smart, {*oi?*, *eh?*}’

Summing up, we have shown that both confirmational are possible with subjective predicates, while *eh?* is not felicitous with certain objective predicates. Moreover, we have argued that even in cases where they are both felicitous, critical differences arise; namely, when there is an experiential component, *eh?* is sensitive to S2’s judgment, while with *oi?* S1 is after an encyclopedic piece of information, not one that relies on opinions. Lastly, a critical difference has also emerged in the presence of vague predicates, since *eh?* does not give rise to a metalinguistic interpretation, which is possible with *oi?* With these data in place, let us turn to the analysis.

### 3.3 Analysis

We assume that in confirmational questions of the sort analyzed in this paper, we have a complex speech act composed of an assertion and a request, phonetically realized in one intonational phrase (Krifka, 2015). In the following we characterize the two complex speech acts, one formed with the confirmational *oi?*, which gives rise to a

<sup>2</sup> This is independent of the fact that, in confirmational questions, S1 treats S2 as being in a better epistemic position to answer the question.



request of commitment of S2 to  $p$  so that S1 can also commit to  $p$ , and one formed with the confirmational *eh?*, which gives rise to a request of acceptance of the proposition  $p$  as a commitment of S2.

Let us first sketch the technical tools and concepts needed to unpack the proposed analysis, which builds on Gunlogson (2003, 2008) concepts of speakers' commitments and of tentative assertion, and on Malamud & Stephenson's (2015) extension of Farkas & Bruce's (2010) Table Model of conversation dynamics to account for English Reverse- and Same-Polarity Tags.

- First, according to Gunlogson, commitments are “positions taken by an agent” (Gunlogson 2008:7), hence they are relative to the different agents in conversation. Formally, they are amenable to sets of worlds, just like a Stalnakerian context set: the set of worlds in which all the agent's commitments are true.
- According to Farkas and Bruce, (the metaphor of) the Table represents a record of what is at issue in the conversation. It contains pairs of syntactic objects and their denotations: e.g., a declarative and a proposition, an interrogative and a set of propositions.
- The Discourse Commitments of S1 ( $DC_{S1}$ ) and S2 ( $DC_{S2}$ ) are the set of propositions that S1 and S2 have publicly committed to, but  $DC_{S1}$  and  $DC_{S2}$  exclusively contain the disjoint commitments, since the joint public commitments are in the Common Ground (CG). Additionally, Farkas and Bruce propose the existence of a projected CG ( $CG^*$ ), formally a set of a future CG.

Equipped with this, Malamud and Stephenson introduce projected DC ( $DC^*$ ), and propose that, in assertions,  $p$  is placed in  $DC_{S1}$ ,  $DC_{S1}^*$ ,  $CG^*$  and on the Table. That is, S1 makes a commitment to  $p$  (hence  $DC_{S1}$ ) that is open to discussion (hence the Table), but which she hopes to become CG (hence  $CG^*$ ). (21) is Malamud & Stephenson's representation of the assertion of a sentence  $p = \textit{Fred is here}$  by S1 (their example (13)).

(21) Malamud & Stephenson's representation of an assertion

	Previously	(i) After S1's assertion	(ii) After S2 accepts S1's assertion
$DC_{S1}$	{}	{Fred is here}	{}
$DC_{S1}^*$	{{}}	{{Fred is here}}	{{}}
$DC_{S2}$	{}	{}	{}
$DC_{S2}^*$	{{}}	{{}}	{{}}
Table	$\langle \rangle$	{<Fred is here>}	$\langle \rangle$
CG	{ $q$ }	{ $q$ }	{ $q$ , Fred is here}
$CG^*$	{{ $q$ }}	{{ $q$ , Fred is here}}	{{ $q$ , Fred is here}}

That is, S1 makes a commitment to  $p$  (hence  $DC_{S1}$ ) that is open to discussion (hence the Table), but which she hopes to become CG (hence  $CG^*$ ). In this sense, placing  $p$  on the Table and in  $CG^*$  is an invitation to S2 to express his opinion.

Malamud and Stephenson analyze polarity particles as follows. In the case of Reverse Polarity Tags,  $p$  is placed in  $DC_{S1}^*$ ,  $CG^*$  and on the Table. (22) is the representation of *Fred is here, isn't he?*

- (22) Malamud & Stephenson's representation of a declarative + Reverse Polarity Tag

	Previously	After S1's move
$DC_{S1}$	{}	{}
$DC_{S1}^*$	{{}}	{{Fred is here}}
$DC_{S2}$	{}	{}
$DC_{S2}^*$	{{}}	{{}}
Table	$\langle \rangle$	{<Fred is here>}
CG	{ $q$ }	{ $q$ }
CG*	{{ $q$ }}	{{ $q$ , Fred is here}}

This representation conveys that S1 makes a tentative commitment to  $p$ , that is, it is going to be a full commitment once S1 has received S2's affirmative reply. When this happens, it will be in  $DC_{S1}$  and in  $CG^3$  – that is why, at the utterance time, it is relegated to projected sets.

In the case of Same Polarity Tags,  $p$  is placed in  $DC_{S2}^*$  and on the Table. (23) is a representation of *Fred is here, is he?*

- (23) Malamud & Stephenson's representation of a declarative + Same Polarity Tag

	Previously	After S1's move
$DC_{S1}$	{}	{}
$DC_{S1}^*$	{{}}	{{}}
$DC_{S2}$	{}	{}
$DC_{S2}^*$	{{}}	{{Fred is here}}
Table	$\langle \rangle$	{<Fred is here>}
CG	{ $q$ }	{ $q$ }
CG*	{{ $q$ }}	{{ $q$ }}

By placing  $p$  in  $DC_{S2}^*$  they are representing that they are attributive in Poschmann's (2008) sense: this is a commitment attributed to the interlocutor, since S1 is making a guess as to what S2 would be ready to assert. However, it is still a tentative commitment, pending S2's affirmative reply, hence it is not directly placed in  $DC_{S2}$ . On the other hand, note that  $p$  is not in  $CG^*$ , which is a way to convey that S1 is not expecting  $p$  to become a collective commitment, but just S2's.

As elaborated on by Geurts (2019, 2023) and Krifka (2019) commitments can be private or public. In their normative view of assertion based on commitment, interlocutors agree with one another to present a proposition  $p$  as a commitment and, hence, to be responsible for this speech act by acceptable possible sanctions if  $p$  is not true (e.g., be called a liar). Among other things, this view divorces commitment from belief, which is a positive outcome, because a speaker may assert that  $p$  without

<sup>3</sup> Once  $p$  is in CG, it disappears from an individual's DC – this is to avoid redundancy (Malamud & Stephenson, 2015: 284, fn 11).

believing that  $p$  is the case. Another consequence of this view is that commitments are established between interlocutors (in our case, S1 and S2) and propositions. Given these notions, tentative commitments can be viewed as conditioned to the approval of the interlocutor in a subsequent move. Since we believe in the possibility of tentative (or contingent) assertions, in line with Gunlogson (2003, 2008) and Malamud & Stephenson (2015), to account for phenomena such as confirmational tags, we assume that complex speech acts are able to yield such a pragmatic effect as a tentative commitment.

### 3.3.1 Request for confirmation of truth

We argue that the addition of *oi?* to a declarative that denotes a proposition  $p$  amounts to a request for confirmation in a scenario whereby the option of  $\neg p$  is not taken into consideration. In particular, we propose that S1 expresses a tentative commitment to S2 to the truth of  $p$ . It is tentative because she is not ready to be responsible for its truth until S2 commits to S1 to the truth of  $p$ . When this happens, then S1 will be ready for this commitment. Observe that the main perk that adding *oi?* affords to S1 is that she does not become “liable to sanctions if the proposition turns out to be false” (Marsili, 2024, but see also Krifka, 2019, before him, inspired by Peirce, 1974), even if she has presented the proposition as a possible assertion. This complex speech act does not share with assertions either what Marsili calls “discourse responsibility”, that is, that S1 is ready to defend the claim that  $p$  if it is challenged. It would be infelicitous for some interlocutor to respond to an *oi?*-sentence by saying *Is that true?* or *Do you really know that?* However, it would be felicitous to reply by asking *What makes you think that?*, which would be challenging the epistemic grounds for the commitment. In this sense, the speaker who utters a confirmational with *oi?* is ready to provide evidence in favor of the truth of the anchor sentence. With an example, if S1 utters *La pel·lícula és a les 15h, oi?* (‘The film starts at 3pm, oi?’) and in actuality it starts at 15:30, she cannot be accused of saying something false. Nevertheless, if an interlocutor asks *What makes you think that?*, S1 would be able to provide reasons for someone to believe that  $p$  (e.g., she seems to recall having read in the newspaper that this is the time). We can conclude from this that uttering *oi?* is adequate in situations where S1 holds a high degree of certainty to the truth of  $p$  but not complete certainty.<sup>4</sup>

If we were to frame this idea in Malamud & Stephenson’s (2015) modified Table theory, one could do it by saying that S1 places  $p$  on the Table as well as in  $DC_{S1}^*$ ,  $DC_{S2}^*$  and  $CG^*$ , (24). The coincidence in the commitment to the truth of  $p$  of both interlocutors is what will bring  $p$  into the CG in a subsequent move.

- (24) La Sira és llesta, oi?  
‘Sira is smart, oi?’

<sup>4</sup> We are grateful to Sebastian Buchczyk for discussing with us the notions of commitment and belief and suggesting critical literature to better approach this potentially relevant distinction.

	Previously	After S1's move
$DC_{S1}$	{ }	{ }
$DC_{S1}^*$	{{ }}	{{ Sira is smart }}
$DC_{S2}$	{ }	{ }
$DC_{S2}^*$	{{ }}	{{ Sira is smart }}
<i>Table</i>	<>	{< Sira is smart >}
<i>CG</i>	{ <i>q</i> }	{ <i>q</i> }
$CG^*$	{{ <i>q</i> }}	{{ <i>q</i> , Sira is smart }}

This is the same analysis Malamud & Stephenson propose for Reverse Polarity Tags in English (see (22) above), except for the fact that we are adding *p* to both  $DC_{S1}^*$  and  $DC_{S2}^*$ , unlike Reverse Polarity Tags, which only do so for  $DC_{S1}^*$ . This difference intends to capture that, as mentioned in Section 1, *oi?* strongly indicates that a negative answer is not expected, while this is not necessarily the case for Reverse Polarity Tags. *Oi?* anticipates the commitment of S2 in a way that Reverse Polarity Tags do not.

### 3.3.2 Request for commitment

The confirmational *eh?*, we argue, also gives rise to a tentative commitment, but not by S1; it also involves a different type of request from S1 to S2. In particular, S1 wants S2 to accept that the proposition *p* should be a public commitment of S2. In this sense, S1 tentatively attributes *p* to S2. S1 has evidence that S2 holds a private commitment to *p*, but he has not (publicly) committed to S1 to its truth, so S1 requests from S2 that he publicly engages with it, and hence be accountable and discourse responsible for it.

A striking consequence of this characterization is that *eh?* is possible in a situation where S1 does not believe that *p* is the case. While this may not be the most frequent use, we entertain two possible discourse functions of *eh?*. In one scenario, S1 is committed to S2 to the truth of *p*, but, since S2 has not committed to S1 to the truth of *p*, the two interlocutors are not “on the same page” about *p*, which is something S1 wishes. Since S1 has manifest evidence that S2 may believe that *p*, she uses *eh?* to force this belief into a public commitment. In the second case, S1 does not believe that *p*. However, there is manifest evidence that S2 does believe that *p*, which is something S1 thinks should be public. This is especially so when S2 believes that *p* but will not admit it (because S2 may think it could be the cause of embarrassment).<sup>5</sup> In fact, this second function is usually taken up by a S1 who wants to mock S2 for this funny, remarkable or embarrassing private commitment to *p*. It could be framed as a request for confession.

If we were to use the Table tools to represent the contribution of *eh?* we could say that *p* is placed by S1 in  $DC_{S2}^*$ , thus prompting S2 to effectively add *p* among his public commitments, (25).

- (25) La Sira és llesta, eh?  
‘Sira is smart, eh?’

<sup>5</sup> This situation is tested in Experiments 2 and 3 in Section 4, under the name of Confess.

	Previously	After S1's move
$DC_{S1}$	{ }	{ }
$DC_{S1}^*$	{{ }}	{{ }}
$DC_{S2}$	{ }	{ }
$DC_{S2}^*$	{{ }}	{{Sira is smart}}
<i>Table</i>	<>	{<>}
<i>CG</i>	{ <i>q</i> }	{ <i>q</i> }
$CG^*$	{{ <i>q</i> }}	{{ <i>q</i> }}

This representation differs from the analysis of Same Polarity Tags in (23) in that *p* is not placed on the Table in the case of *eh?*. This is a way of expressing that S1 is not guessing a private commitment of S2 corresponding to a question under discussion, but rather making S2 be open about his private commitment. It also captures that it is possible to use *eh?* to just attribute a commitment to S2 without waiting for a confirmation.

Importantly, this discourse move is only licensed in contexts where S1 has sufficient grounds to suspect that S2 has a private commitment to *p*.

### 3.3.3 Explaining the properties

**Factual vs. subjective statements.** We have shown that *oi?* is felicitous across the board (with facts and opinions). This is expected under an analysis of request for confirmation of truth. By contrast, *eh?* is more restrictive, especially with facts whose truth do not depend in any way on S2, like encyclopedic ones (e.g., whether or not the Earth is round). In our view, a move whereby S1, irrespective of her own commitments, requests S2's commitment is only felicitous if there is a reason as to why S1 would make such a request. We contend that it only makes sense in cases where S2 has some involvement in the truth of *p*, where S1 finds S2 as the appropriate author (or actor) of the speech act. For instance, the Earth example in (17) could even be made sense of in a context where S1 has evidence that S2 has only recently learned that the Earth is round, which S1 thinks is funny. If she wants to mock him on this fact, *eh?* is felicitous, because the request for going public about *p* serves a purpose. More generally, encyclopedic truths are such that both interlocutors can in principle access them, so the motivation for just S2 to go public about them makes less sense, unless an enriched context is created, such as the one we have just described. In other words, it is more difficult with objective truths to create a context where *eh?* is felicitous because of the potential lack of motive for S1's request, but it is not impossible.<sup>6</sup>

**Interpretation of taste predicates.** Taste predicates provide a good context for teasing apart the two interpretations depending on which confirmational is used. When requesting confirmation of truth (*oi?*), S1 presupposes that there is only one possible truth value for *p*, one in which S1 and S2 should agree on. When requesting for the truth of Sònia being fantastic or John being attractive, S1 does not expect that S2 returns a commitment that only concerns his taste. Therefore, a global or collective

<sup>6</sup> We are leaving aside ironic uses of both confirmational. We leave this issue for future research.

judge is presumed (or just a lack of judge, as in any objective proposition).<sup>7</sup> This follows from the fact that *p* is placed on the Table and in CG\*. By contrast, in the case of *eh?* only S2's judgment is at stake. Hence, in this case *p* is not placed on the Table or in CG\*, but only in DC<sub>S2\*</sub>. Together with the previous property, this also explains the mentioned experiential component. That is, S1 requests S2's commitment of *p* irrespective of her own. Building on Ninan's (2014, 2021) acquaintance inference, if S2 asserts *Licorice is tasty*, he has tasted it. In our example, if S2 asserts that the floor is hard, S2 has some experiential relation to this hardness. If we add to this that S1 may be using *eh?* to mock S2, it could be the case that this experiential relationship is S2's having fallen on the floor.

**Interpretation of vague predicates.** Going back to the two possible readings of vague predicates (descriptive and metalinguistic, according to Barker, 2002), we put forth that adding *oi?* to a sentence anchor does not give rise to any differences with a plain assertion. S1 is genuinely interested in confirming the truth of *p*, which could either be about Sira's degree of smartness (descriptive) or about where the standard of smartness is in that specific culture or context (metalinguistic). By contrast, with the use of *eh?*, S1 wants S2 to commit with her to the truth of *p*, but whether or not *p* is objectively true is not at stake. Thus, the only way to make sense of *eh?* given a vague predicate (*smart*) is to treat it as a taste predicate. This is supported by the fact that *llest* 'smart' is compatible with *trobar* 'find', as shown in (26).

- (26) Trobo la Sira llesta.  
'I find Sira smart.'

This fact could be telling us that subjective statements do not give rise to Barker's (2002) metalinguistic interpretation of vague predicates. Rather, they are subjective measure functions (Bylina, 2013, 2016), and so we cannot derive any conclusions regarding contextually established thresholds.

As an extension of this, if instead of using a gradable adjective as an example of a vague predicate, we use the vague boundary between blue and green as applied to a sofa (Malamud & Stephenson's (2015) Borderline paint scenario), the following situation obtains:

- (27) Catalan  
El sofà és verd, {oi?, #eh?}  
'The sofa is green, {oi?, #eh?}'

That is, with *oi?* there are no constraints. With *oi?* S1 double-checks with S2 whether she is right about the limits of the extension of green (in a context of vagueness). However, the sentence is quite odd with *eh?*. It would convey that S1 wants S2 to commit with her to the truth of *p*, independently of the "objective" truth of *p*. This would be unjustified unless *p* is a matter of opinion and S1 has evidence that S2 is privately committed to *p* or, more generally, there is a sensible reason for S1 to ask S2 to turn his private commitment public (remember, as in the example of having the hair cut).

<sup>7</sup> Note that this establishes a difference in the behavior of taste predicates in polar questions, which typically involve interrogative flip (McCready, 2007). We leave the development of this idea for future research.

## 4. Empirical studies

So far, we have provided novel empirical contrasts between *oi?* and *eh?* based on introspection, as well as an account of their different behavior. In what follows, we aim to contribute a more solid foundation for some of these contrasts by appealing to two precise predictions that can be tested empirically (I and II below).

- I. Confirmational *oi?* should be preferred over confirmational *eh?* when sentence anchor *p* describes a factual (encyclopedic) truth.
- II. Confirmational *eh?* should be preferred over confirmational *oi?* in contexts where S1 is not interested in resolving the truth of *p*. In particular, *eh?* should be possible even if S1 is committed to  $\neg p$ .

Below we report data collected through three experimental tasks: experiment 1 tests prediction I and experiments 2 and 3 test prediction II.

### 4.1 Experiment 1

#### 4.1.1. Methods

Building on prediction I, Experiment 1 was a forced-choice task whose goal was to study the appropriateness of *eh?* and *oi?* depending on the type of truth described by the sentence anchor (encyclopedic facts vs. opinions). We tested this prediction by comparing two types of predicates, which we called objective and subjective.<sup>8</sup> The participant's task was to select the most appropriate sentence for a particular context. Participants first read a context displayed on a computer screen, such as the one in (28), in which S1 is sincerely interested in the truth of *p* and wants to confirm it.

- (28) Yolanda arrives at her parent's place and sees that her nephews are watching TV and yawning. She is wondering whether she should watch some TV. Yolanda says to her nephews:

After reading the context, participants heard two utterances, which were also displayed on the screen: one of the utterances contained *eh?* and the other contained *oi?*. We chose to present the utterances both written and orally to be able to control for the prosody of the tags. In addition, utterances were presented in one of two conditions: they either contained subjective predicates, such as *boring* in (29), or objective ones, such as *being a sports programme* as in (30). As anticipated, we used the term *objective* to refer to predicates that compose propositions which denote encyclopedic truths – i.e., this divide does not hold for any objective predicate, as will be clear in Experiment 3 (see also footnote 7).

- (29) El programa és avorrit, oi?/eh?  
'The program is boring, {oi?, eh?}'
- (30) El programa és d'esports, oi?/ eh?  
'The show is a sports one, {oi?, eh?}'

<sup>8</sup> By establishing this distinction, we are leaving out factual sentence anchors for which S2 has a better chance to know the truth because he has a personal involvement with it, such as whether or not S2 had his hair cut (recall examples such as (18) above).

The study contained 16 critical items and 16 filler items in a Latin-square design, so that participants only saw each item in one of the conditions (either with the objective or subjective predicate). In addition, the study also contained items for a different research question which we do not analyze further. The data was collected using PCIBex (Zehr & Schwarz, 2018) and the experiment was distributed through social media (X and Mastodont.cat) as well as through online university notice boards. All Catalan-speaking individuals were invited to participate except for those who were language professionals (linguists, philologists, translators). First, the participants read the instructions in which the procedure was explained. Then, they completed a pre-test questionnaire, in which they were shown a sentence and were asked to select the confirmatory tags they would naturally produce. Among the tags presented were *eh?* and *oi?* and they could select as many tags as they wished. This was done because, as explained in Section 3.1, *oi?* is not used in all Catalan dialects, but rather mostly in Barcelona, its metropolitan area and Central Catalonia. The participants who selected *oi?* among the possible tags they could produce proceeded to the experiment. Finally, some information about their sociolinguistic profile was collected.

Eighty-five Catalan speakers started the experiment, 48 of which used *oi?* in their variety. We report the results for this subset of speakers. All participants were entered in a raffle to win a gift certificate.

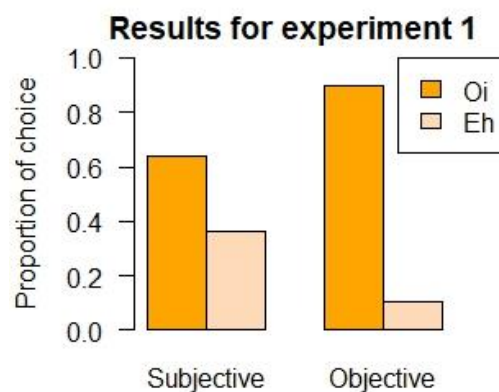
#### 4.1.2 Hypotheses

Our prediction was that *oi?* would be selected more often than *eh?* with objective predicates, while we did not expect a strong preference for one of the tags in items with subjective predicates.

#### 4.1.3 Results

Results are shown in Figure 1. For each of the conditions, the darker bar shows the proportion at which *oi?* was selected, while the lighter bar shows the proportion for *eh?*. It can be seen that, with objective predicates, *oi?* is strongly preferred, while *eh?* is rarely chosen. In contrast, with subjective predicates, both tags are possible, even if *oi?* is also preferred. The experiment, thus, confirms that *eh?* is restricted to subjective predicates, while *oi?* is not.

**Figure 1.** Proportion of choice for *eh?* and *oi?* in each condition.



To test for the statistical significance of the results, we ran a mixed-effect logistic regression, using R (R Core Team, 2013), and *lme4* (Bates et al., 2015), in which the dependent variable is the chosen tag. We entered Condition, that is, type of



predicate, as a fixed effect, with subjective as the reference level. The contrast scheme used for the predictor was treatment coding. As random effects, we entered intercepts and slopes for participants and items.<sup>9</sup> The results of this model can be seen in Table 1.

**Table 1.** Summary of the results of a mixed model logistic regression for Experiment 1.

Fixed effect	Estimate	SE	z	p
<i>Intercept</i>	-0.64	0.23	-2.80	0.005
<i>Objective</i>	-2.21	0.50	-4.38	< 0.001

As expected, *eh?* was selected significantly less often with objective predicates than with subjective predicates. The results support our hypothesis that *eh?* is not compatible with objective predicates, while both *oi?* and *eh?* are compatible with subjective predicates.

Having seen that *eh?* is sensitive to the type of predicate, we now move to test the effect of context on the choice of tag.

## 4.2 Experiment 2

### 4.2.1 Methods

In the second experiment, we focused on prediction II and, hence, on the type of contexts in which *oi?* and *eh?* are felicitous. Since we wanted participants to pay special attention to the contexts, and not only to the tags, we reversed the task in Experiment 1 and participants were asked to select the best context for a sentence to be uttered.

The sentences came in two conditions, as illustrated in (31): the sentence either contained *oi?* (31) or *eh?* (31), with a subjective predicate (which, as we say in Experiment 1, is compatible with both tags).

- (31) a. El programa és avorrit, *oi?*  
       ‘The show is boring, *oi?*’  
       b. El programa és avorrit, *eh?*  
       ‘The show is boring, *eh?*’

Participants read one of the sentences above and, afterwards, two contexts appeared on the screen. Contexts were of two types: Sincere and Confess. In Sincere contexts, S1 was sincerely interested in confirming the truth of a proposition she anticipated being true (they were the same type of contexts that were used in Experiment 1). In Confess contexts, S1 was already opinionated about the truth of a subjective *p* (she believed  $\neg p$  was the case) and wanted S2 to commit to her to the truth of *p*. The two contexts are illustrated in (32).

- (32) a. Sincere: Yolanda arrives at her parent’s place and sees that her nephews are watching TV and yawning. She is wondering whether she should watch some TV. Yolanda says to her nephews:

<sup>9</sup> The model was tag ~predicateType + (1+ predicateType |participant) + (1+ predicateType |item).

b. Confess: Yolanda and her nephews are watching a documentary about the breeding of canaries. She is having a good time, since she's a biologist, but her nephews are yawning. Yolanda says to her nephews:

The study contained 16 critical items and 16 filler items in a Latin-square design, so that participants only saw each item in one of the conditions (i.e., the sentence with *eh?* or with *oi?*). The fillers included three exploratory items in which we tested the behavior of *eh?* in a particular type of Confess context and with objective predicates; we will discuss these fillers in the discussion section. In addition, the study also contained items for a different research question which we do not analyze further. The procedure was very similar to what we explained for Experiment 1, except that all materials were presented only in writing. As before, we also included a pre-test so that only participants who use *oi?* in their variety proceeded to the experiment. Experiment 2 was also an online study administered through PCIbex and distributed through social media and university notice boards. One hundred eighty-four Catalan speakers started the experiment, 112 of which used *oi?* in their variety. We report the results for this subset of speakers. All participants were entered in a raffle to win a gift certificate.

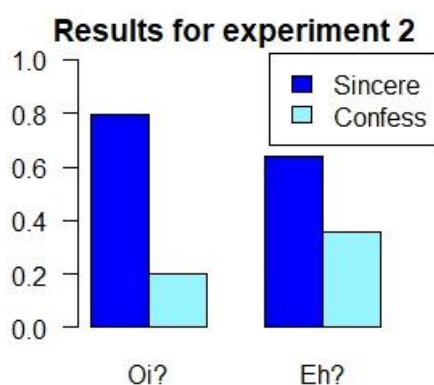
#### 4.2.2 Hypotheses

Our prediction was that Sincere would be the preferred context for *oi?*, while Confess would be preferred for *eh?*.

#### 4.2.3 Results

Figure 2 shows the results for Experiment 2. As it can be seen, the Sincere context is preferred in the two conditions, but the strength of the preference varies: it is weaker in the condition with *eh?* than in the condition with *oi?*. In other words, Confess is selected most often with *eh?*, but it still is selected less than Sincere.

**Figure 2.** Proportion of choice for Sincere and Confess in each condition.



We ran a mixed-effect logistic regression in which the dependent variable is the type of context (Sincere vs. Confess). We entered the tag as a fixed effect, with *oi?* as the reference level. The contrast scheme used was treatment coding. As random effects, we entered intercepts and slopes for subjects and participants.<sup>10</sup> The results of this model can be seen in Table 2. As expected, the probability of selecting the Confess context is significantly higher with *eh?* than with *oi?* ( $\beta = 1.02$ ,  $p < 0.001$ ).

<sup>10</sup> The model was  $\text{context} \sim \text{tag} + (1+\text{tag} | \text{participant}) + (1+\text{tag} | \text{item})$ .

**Table 2.** Summary of the results of a mixed model logistic regression for Experiment 2.

<b>Fixed effect</b>	<b>Estimate</b>	<b>SE</b>	<b>z</b>	<b>p</b>
<i>Intercept</i>	-1.71	0.28	-6.11	< 0.001
<i>Eh?</i>	1.02	0.24	4.26	< 0.001

#### 4.2.3 Discussion

Let us take stock of the results in Experiments 1 and 2. They provide partial support for the hypotheses we put forward. Taken together, the results of both experiments for *oi?* indicate that it can co-occur both with objective and subjective predicates and that it is more compatible with Sincere contexts than with Confess contexts. The results are less clear for *eh?*: while, as expected, our results indicate that *eh?* is not compatible with objective predicates, we were expecting to find a clearer preference for Confess contexts with this tag. In contrast, we found that, with *eh?*, the preferred context is Sincere, just as with *oi?*. At the same time, Confess is selected more often with *eh?* than with *oi?*. Thus, there seems to be a link between *eh?* and Confess, albeit weaker than we might have expected. We believe the reasons for the weak link is to be found in intrinsic differences between the two types of contexts. First, they differ in their relation to politeness. While Sincere is quite neutral, the question in the context of Confess can be understood as a Face-Threatening Act (Brown & Levinson, 1987). For instance, recall the context in (32), in which Yolanda, a biologist, asks her nephews if they find a bird documentary boring. This can clearly be face-threatening if the nephews interpret their aunt's question as a way of embarrassing them. Second, in all our Confess contexts, there was a lack of alignment between S1's and S2's stances with regard to the truth of *p*: S1 believed  $\neg p$ , but thought S2 was privately committed to *p*: i.e., in (32) S1 did not find the documentary boring, but believed S2 did. No such asymmetry was present in Sincere contexts, rendering them simpler and less convoluted. This might have boosted the general preference for the Sincere contexts. Evidence that this might be on the right track comes from the exploratory fillers we included in Experiment 2, which we will briefly discuss.

As mentioned, Experiment 2 included 16 fillers. Within these fillers, we used three exploratory fillers designed to test the use of *eh?* with (non-encyclopedic) objective predicates, in which S2 had a personal involvement. Participants had to select the best context for a sentence like (33).

- (33) T'has tallat els cabells, eh?  
'You had your hair cut, eh?'

While the sentence with the tag contains an objective predicate, it is not an encyclopedic truth, but rather an event which involves the speaker, as discussed in Section 3.2. The two contexts that participants could choose from had the following shape:

- (34) a. Sincere: You look at the actor who was supposed to play a hippie, and you see his hair is too short. You say:  
b. Confess: A colleague of yours seems to be hiding his new haircut under a baseball cap. You say:

As opposed to the Confess contexts for the experimental items in Experiment 2, in this case there isn't a lack of alignment between S1 and S2: S1 has some evidence that *p* is the case and wants S2 to admit this. The difference between Sincere and Confess is that, while in the first, S1 is just requesting for a plain confirmation of *p*, in Confess, S1 is poking fun at S2 and wants him to publicly commit to *p*. With these three items, our participants overwhelmingly chose the Confess context: it was selected 82% of the time (86%, 65% and 94% respectively for each individual filler). This suggests that making the two contexts more similar in their complexity by eliminating the lack of alignment between S1 and S2 helps to increase the acceptability of Confess and, thus, may be useful in finding sharper contrasts between *eh?* and *oi?*. This is precisely what we tested in Experiment 3.

### 4.3 Experiment 3

#### 4.3.1 Methods

Experiment 3 was a follow-up study on the research question addressed in Experiment 2, which concerned Prediction II. In particular, the goal of Experiment 3 was to study which kind of contexts were preferred with the two tags under study, by removing the confounds that Experiment 2 created because of the lack of alignment between S1 and S2 concerning the truth of *p*.

After reading a sentence with either *oi?* or *eh?* participants are asked to choose the best context for the sentence to be uttered. The procedure and materials were very similar to those in Experiment 2 with two main differences. The first difference was that the sentence with the tag contained an objective predicate, as shown in (35). As explained, *eh?* seems to be compatible with objective predicates, as long as the addressee is in a better position to voice *p*, because he is somehow involved in the described event. In (35), the addressee is clearly involved since he has apparently done someone else's hair.

- (35) a. Avui l'has pentinada tu, oi?  
       'You did her hair, oi?'  
       b. Avui l'has pentinada tu, eh?  
       'You did her hair, eh?'

Participants read one of the sentences above and, afterwards, two contexts appeared on the screen. As in Experiment 2, we called one of the contexts Sincere and the other Confess. Unlike Experiment 2, however, the Confess context was constructed in a way in which its complexity was more similar to the Sincere context. In both contexts the S1 believed that *p* was true; so there was not any asymmetry between the beliefs of the interlocutors. However, while in Sincere contexts, S1 was genuinely interested in the truth of *p* and wanted their interlocutor to confirm it, in Confess contexts, S1 was primarily interested in S2 publicly admitting that *p* was among his commitments. This situation tends to happen when *p* is potentially embarrassing for the addressee and the speaker thinks he may be reluctant to admit it. The two contexts are illustrated in (36): while in the Sincere context, S1 wants to confirm that S2 is the one who did her hair, in the Confess context, S1 is poking fun at S2 and wants him to admit that he is the one responsible for his daughter's messy hair.

- (36) a. Sincere: Arnau is really good at doing hairstyles, which has always intrigued you. This morning, you run into Arnau with his daughter on their way to school. She has a beautiful braid. You say to Arnau:  
 b. Confess: Arnau is quite clumsy at doing hairstyles. Usually, his partner takes care of styling the children's hair, but today she is traveling. This morning, you run into Arnau with his daughter on their way to school. Her hair is a mess. You say to Arnau:

The study contained 16 critical items and 16 filler items in a Latin-square design, so that participants only saw each item in one of the conditions (either with *eh?* or with *oi?*). All materials were presented only in writing. As in the previous two experiments, a pre-test was included, so that only participants who use *oi?* in their variety proceeded to the experiment. Experiment 3 was also an online study administered through PCibex and distributed through social media and among university students. One hundred Catalan speakers started the experiment, 67 of which used *oi?* in their variety. We report the results for this subset of speakers. All participants were entered in a raffle to win a gift certificate.

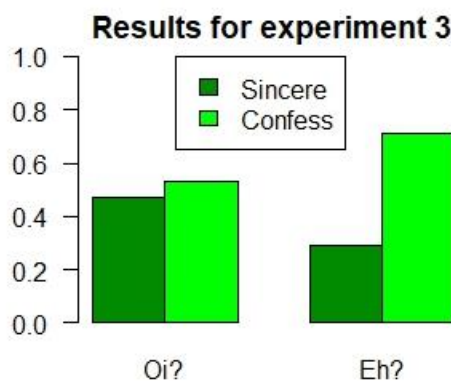
#### 4.2.2 Hypotheses

As in Experiment 2, our prediction was that Sincere would be the preferred context for *oi?*, while Confess would be preferred for *eh?*. Also, since both contexts were of similar complexity, we expected that Confess would be selected more often than in Experiment 2.

#### 4.2.3 Results

Figure 3 shows the results for Experiment 3. As it can be seen, with *eh?*, there is a clear preference for Confess over Sincere. In contrast, for *oi?*, there is no similar preference and both tags are selected with a similar rate. It can also be observed that, as we expected, Confess was more selected in this experiment than in Experiment 2: overall in Experiment 3, it was selected 62% of the time, while in Experiment 2, it was selected only 29% of the time.

**Figure 3.** Proportion of choice for Sincere and Confess in each condition.



To test for the significance of the results, we ran a mixed-effect logistic regression in which the dependent variable was the type of context (Sincere vs. Confess). We entered the tag as a fixed effect, with *oi?* as the reference level. The contrast scheme used was treatment coding. As random effects, we entered intercepts

for participants and items.<sup>11</sup> The results of this model can be seen in Table 3. The probability of selecting the Confess context is significantly higher with *eh?* than with *oi?*.

**Table 3.** Summary of the results of a mixed model logistic regression for Experiment 3.

Fixed effect	Estimate	SE	z	p
<i>Intercept</i>	0.13	0.23	0.57	0.56
<i>Eh?</i>	0.93	0.14	6.61	< 0.001

#### 4.3.3 Discussion

Taken together, the three experiments show that *eh?* and *oi?* are not interchangeable and that they display restrictions regarding the type of predicate they can co-occur with. Experiment 1 clearly showed that *oi?* is compatible with both subjective and objective predicates without speaker involvement while *eh?* is only compatible with the former. Experiments 2 and 3 investigated which types of contexts are more suitable for each tag. Overall, it is shown the contexts in which the speaker is not really interested in conforming a proposition, but rather wants their interlocutor to admit something, are more compatible with *eh?* than with *oi?*.

## 5. General discussion

The goal of this paper was to provide a thorough characterization of two confirmational tags in Catalan: *oi?* and *eh?*, which had not been studied in depth until. On the basis of novel introspective data, we have revealed that a distinction emerged between the two tags depending on the type of truth described by the sentence anchor: opinions vs. (encyclopedic) facts. Drawing on this distinction, we have also shown that the use of *eh?* involves a context in which S1 has evidence that S2 can tell that the sentence anchor is true based on his own experience. While we have pointed at a difference in truth judgment that relies on who the judge is in each case, we have also shown that *eh?* is not ruled out from sentence anchors that describe factual truths as long as they are not encyclopedic.

We have proposed that, with *oi?*, S1 seeks confirmation for the truth of *p*. It is quite unconstrained as to the kind of sentence anchor it follows. It only requires that S1 does not consider  $\neg p$  a probable next move. In this sense, it is different from the English Reverse Polarity Tag. When the sentence anchor contains a subjective predicate, truth is not relative to an individual judge, but rather a global/collective one. By contrast, we have proposed that, with *eh?*, S1 has evidence that S2 believes that *p* and requests that S2 commits to it. In this sense, *eh?* is attributive, but not like English Same Polarity Tag as characterized by, e.g., Malamud & Stephenson (2015), according to whom the Same-Polarity Tag expresses S1's guess as to what S2 is committed to. In the case of subjective predicates, confirmational with *eh?* are anchored to only S2. Additionally, nothing prevents S1 from not believing that *p* is the case. *Oi?* and *eh?* do not pattern like West Canadian *eh?*, either, since the latter does not show any restrictions concerning the nature of the truth denoted by the sentence anchor (objective, subjective), and the Catalan tags do not target a segment of the

<sup>11</sup> The model was context ~ tag + (1 | participant) + (1 | item). The model with random slopes did not converge.

clausal spine that goes beyond the propositional projection (a grounding layer, in Wiltschko's clausal spine). In fact, it is difficult to imagine a context in which an example such as (9) (*I have a new dog, eh?*) would be felicitous for any of the two Catalan tags under discussion; note that the subject is a first person singular, so, in the case of *oi?*, S1 would be asking S2 for confirmation of the truth of  $p$ , i.e., thinking that S2 knows better than her whether she has a dog. In the case of Catalan *eh?*, the context should be one in which S1 suspects S2 has  $p$  (i.e., that S1 has a new dog) as a private commitment, and S1 wants S2 to be open about it. One could imagine a very special scenario in which S2 was not supposed to know that S1 had a new dog, so he is keeping it quiet, but S1 finds out that he knows. Be that as it may, this is not the function of West Canadian *eh?* Concerning sentence-final Swabian *gell?*, its first function could be compatible with *oi?*, but its second function does not correspond to confirmational *eh?* – but probably rather what we have called Type 2 *eh?*, pending further research.

In view of this overall picture, we have been able to make two hypotheses to be tested experimentally: a) *Oi?* should be preferred over *eh?* in sentences that describe an objective (encyclopedic) truth; b) *Oi?* and *eh?* should be felicitous in slightly different contexts. In fact, *eh?* should be felicitous even if S1 believes that  $\neg p$  is the case. Experiments 1 and 2 have been designed to test these two hypotheses and have obtained partial confirmation thereof. While Experiment 1 has shown that while *oi?* is the preferred confirmational with encyclopedic facts, both tags are possible with opinions. Experiment 2 has not clearly confirmed our hypothesis concerning the availability of *eh?* in contexts where S1 is committed to  $\neg p$ . However, its results were compatible with the general prediction that *oi?* and *eh?* were felicitous in different kinds of contexts. Therefore, we have run a follow-up experiment (Experiment 3) that was devoid of the issues that may have caused unclear results. Specifically, we suspected that the Confess context when S1 and S2 have opposite commitments is more complex and dispreferred for being face-threatening. Thus, in Experiment 3 we have created Confess contexts that did not involve opposite views on the truth of  $p$ , and it has provided a clear confirmation that Sincere is the preferred context for *oi?* and Confess, the preferred context for *eh?*.

In this paper, we hope to have enlarged the empirical landscape in the study of confirmation tags and biased questions more generally. By providing data from two tags which had not been previously studied from a formal perspective, we have contributed new insights into the subtle ways in which tags can convey discourse meaning. To fully understand the functions of these two tags, the study of naturally occurring data is also necessary. It would be interesting to find out whether there are other properties of the sentence anchors in each confirmational that supports or rejects the analysis put forth in this article. A corpus study could inform us about the frequency of each confirmational depending on predicate types, for instance. Finally, an open question that we have not touched upon here concerns ironic uses of these tags.<sup>12</sup> We have shown that *eh?* can be used to make S2 admit his commitment to  $p$  in situations where S1 wants to make fun of S2; but there are uses of *oi?* in situations in which S1 falsely presents  $p$  as a tentative commitment (when she means that she is tentatively committed to  $\neg p$ ), and uses of *eh?* in situations in which S1 presents  $p$  as a potential S2 commitment (when she suspects S2 is committed to  $\neg p$ ). We leave the analysis of these ironic uses for future research.

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