English mirative contours and particles*

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1 Introduction

Broadly, this talk attempts to connect **intonational meaning** with **discourse particle meaning**, with a specific focus on what I identify as **mirative strategies** in English.

QUESTION: How does the pragmatic interpretation of discourse particles interact with intonation?

This talk will argue for three general points:

1. Semantic investigations of discourse particles must be sensitive to prosody
2. We can use prosodic meaning to help diagnose discourse particle meaning
3. In English, we can use prosody to tease apart the different pragmatic contributions between *oh* and *huh*

(1) A: Joe left the stove on.
   a. B: Oh. No it isn't.
   b. B: #Huh. No it isn't.

Deconstructing the pragmatic contributions of contours and particles allows us to:

- make predictions about how particles will behave with particular contours
- make precise calculations about the epistemic state of a speaker at the time of utterance
- identify which contours and particles pragmatically "clash", resulting in pragmatically incoherent discourse states
- make testable claims about the pragmatic contributions of particles and prosodic contours

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Roadmap

The structure of the talk is as follows:

- Introduce an updated Table Model (Farkas & Bruce 2010)
- Outline the prosodic contours of interest in terms of shape, meaning, and function
- A look at mirativity and mirative strategies
- Two English discourse particles, *oh* and *huh*
- Bringing it together: compositionality
- Paths forward

2 Decomposing meaning

2.1 Basic assumptions: the table model

I assume the Tabletop model, which is a commitment-based framework of common-ground management following Gunlogson (2001) and Farkas & Bruce (2010).

In this view:

- Assertions are proposals to update the conversation by adding propositions to the *table*, a stack of propositions under discussion

- By *raising an issue*, a speaker adds content to the table
- Participants can accept or reject proposals in order to grow the *common ground*
- Expanding the common ground amounts to shrinking the *context set*, narrowing down the set of worlds in the running for the actual world
- Asserting a sentence both places the content of that proposition on the table, and adds it to the *projected set*, projecting future states of the conversation after successful resolution of the issue
- The model also tracks the *discourse commitments* of the participants, representing public commitments that have not yet been accepted as common ground

This can be schematized in (2):

(2) a. Context before utterance:

$\mathbf{DC}_A$	**Table**	$\mathbf{DC}_B$

$cg : s_0, ps = \{s_0\}$

b. **A:** The stove is on. $= p$

c. Update context with p:

$\mathbf{DC}_A$	**Table**	$\mathbf{DC}_B$
p	$\mathbf{\{}p\mathbf{\}}$	

$cg : s_0 = s_1, ps = \{\{s_0 \cup p\}\}$

2.2 English intonational contours

Much of the work on prosodic meaning has focused on the difference between rising and falling intonation in declaratives and interrogatives (c.f. Gunlogson (2001), Gunlogson (2008), Farkas & Bruce (2010), Malamud & Stephenson (2015), Krifka (2015), Farkas & Roelofsen (2017)).

(3) a. Jill watches the West Wing.
b. Jill watches the West Wing?

I set aside final rises and instead focus on three types of final falls:

- Neutral final fall *H* L-L%*
  Typical of a standard assertion, no special pragmatic effect
- Excited final fall *↑H* L-L%*
  Also asserts p, but higher pitch is indicative of positively skewed information
- Surprise-Redundancy Contour (SRC) *(H)-L* H* L-L%*
  "expresses [...] the view that one's interlocutor should have already known what one is saying" Ladd (2008).

When the performance of an utterance is manipulated with one of these contours, there is a significant effect on the interpretation of the speaker's epistemic state:

(4) a. She spread butter on the sourdough. *Neutral*
b. She spread butter on the sourdough! *Excited*
c. She spread butter on the sourdough!? SRC

I assume that each of these contours contribute **speaker oriented commentary** about a speaker's *expectations* in the current discourse context.

What are the contours?

First, a ToBI cheat sheet:

H	high accent tone
L	low accent tone
L%/H%	low/high (final) boundary tone
*	pitch accent

Neutral final falls:

(5) **H* L-L%**: a gradual rise to a peak sentential accent followed by a gradual fall to a low boundary tone (Féry 1993, Hayes 1995)

Excited final falls:

(6) **↑H* L-L%**: Steep rise to a peak sentential accent, with a steep fall to a low boundary tone (Gussenhoven 2002)

Surprise-Redundancy Contour:

(7) **(H)-L* H* L-L%:** high pitch associated with the primary sentential accent, and contrasting low pitch on the utterance's second most prominent syllable (Sag & Lieberman 1975, Ladd 1980)

Each of these contours has a particular canonical interpretation when paired with a particular utterance type. I argue two things:

- Prosodic interpretations inherently comment on the speaker's expectations in a discourse
- These expectations are placed into the speaker's discourse commitments at the time of utterance as not-at-issue content

Take the case of neutral falling intonation:

▷ Neutral final falls have the force of an assertion

▷ Assertions require commitment to the truth of the utterance

▷ Speakers must act as though they believe the truth of an utterance

▷ Believing the truth of an utterance betrays certain expectations about that utterance

This is information that is anchored to the speaker, but which is nevertheless communicated to the listener.

→ Crucially this information is **not-at-issue**

Proposal:

The discourse effects of neutral and excited intonation patterns are as follows:

(8) **Neutral final falls** adds the following to the speaker's DC list: $\text{Exp}_{spkr}(p) \approx 1$

(9) **Excited final falls** adds the following to the speaker's DC list: $\text{Exp}_{spkr}(p) \approx 1 \wedge \text{Boul}_{spkr}(p) > \text{Boul}_{spkr}(\neg p)$

In the modified Table model:

(10) a. Context before utterance:

$\mathbf{DC}_A$	**Table**	$\mathbf{DC}_B$

$cg : s0, ps = \{s0\}$

b. **A:** Jill got her car washed. $= p$

c. Update context with p:

$\mathbf{DC}_A$	**Table**	$\mathbf{DC}_B$
$p \wedge \mathbf{Exp}_A(p) \approx \mathbf{1}$	$\{p\}$	

$cg : s_0 = s_1, ps = \{\{s_0 \cup p\}\}$

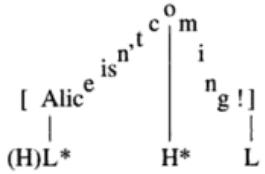
Having this information present in the discourse allows a transparent way of integrating a speaker's comments about propositions into the greater model of discourse:

→ Addressees can incorporate a speaker's thoughts and expectations into a response without needing to commit to them

The SRC is a bit more complicated.

- Whereas neutral and excited contours may be uttered out of the blue, the SRC must be anaphoric to a salient proposition
- We can interpret (11) only if we have already established some things about Alice:

(11) *Context: We have previously established that Alice is vacationing in Bermuda. This means she cannot come to our party in Santa Cruz. My interlocutor remarks that Alice isn't around. I respond:*



Alice isn't coming! *Hayes 1995, p.18*

This is more complex than the other final falls:

- It relies on the speaker's expectations about the uttered proposition as well as expectations about the status of propositions entered collectively into the common ground
- Because of this, I assume that it is a **mirative strategy** in English

(12) The **Surprise Redundancy Contour** is anaphoric to a salient p and is admissible for discourse-salient participants x when:

a. q is the proposition expressed by the speaker (uttered content or the presuppositions introduced by a question),

b. add the following to the speaker's DCs:
$\text{Exp}_{spkr}(q) \approx 1 \wedge \forall x \in Disc.\ Context\ [\text{Exp}_x(p|q) \approx 0]$

In the example from before, where the speaker and hearer both have information about Alice's whereabouts, when the speaker asks where Alice might be, the speaker can respond, anchoring to the salient p from their previous conversation:

(13) a. Infer from B: *Alice should be here here* $= salient\ p$

b. **B:** Alice isn't coming?! $= q$

c. Update context with p:

$\mathbf{DC}_A$	**Table** $\{q\}$	$\mathbf{DC}_B$ q, $\mathbf{[Exp}_B(q) \approx 1 \wedge \mathbf{Exp}_{A,B}(p\|q) \approx 0\mathbf{]}$

$cg : s0 = s1,\ ps = \{\{s0 \cup p\}, \{s0 \cup q\}\}$

3 Mirative particles and prosody

Miratives are the grammatical encoding of a participant's epistemic state at the time of utterance. They can encode:

- the common ground status of a proposition
- a speaker's surprise or (violated) expectations
- how the speaker has integrated (or plans to integrate) a proposition into their belief set[1]

[1]For more detailed accounts of mirativity, see among others, DeLancey (1998, 2001), Aikenvald (2004, 2012), Rett & Murray (2013).

The SRC is an English mirative strategy:

- For assertions, the SRC is indicative of speaker attitude toward a proposition, specifically, surprise that a conversation participant didn't know a fact (Sag & Lieberman 1975, Ladd 1980):

(14) A: (*In a natural history museum*) What's that?

B: It's a saber-toothed tiger!
H L* H*-L%

- It can also be used in constituent questions with rhetorical effect:

(15) A: I don't want to eat this grilled cheese.

B: Then why did you order it?
L* H* L%

- Bartels (1999) proposes that the contour induces a "should have known" inference: the speaker projects a state of the common ground that the hearer has either overlooked, or has not taken into account.
- This is contrary to the expectations of the speaker, and they indicate this with their marked intonation

3.1 Discourse particles

Past interpretations of discourse particles have ignored the prosodic environments that they occur in.

But manipulating the performance of the utterance has a significant effect on how we interpret the speaker's epistemic state.

(16)

A: We're out of flour.	p
B: Oh.	**Neutral fall**, $Expect_A\ p \approx 1$
B′: Oh? (rise)	*Request more info regarding p*
B″: Oh!?	**SRC**, *insinuate* $\neg p$
B‴: # Oh!	**Excited**, *Infelicitous*

A similar state of affairs holds for *huh*, with minor exceptions:

(17) A: We're out of flour. — *p*
B: Huh. — **Neutral fall**, *Expect*$_A$ $p \approx 1$
B′: Huh? (rise) — *Request more info regarding p*
B″: Huh!? — **SRC**, *insinuate* $\neg p$
B‴: Huh! — **Excited**, *Infelicitous*

Gunlogson (2008) analyzes neutral falling cases of *oh* in an commitment-based model of discourse, where the particle is used to accept and commit the speaker to the previous utterance.

But while *oh* and *huh* overlap in many contexts, their distribution is not the same:

(18) A: We're out of flour.
  a. B: Oh. No we're not.
  b. B: #Huh. No we're not.

- *huh* is widely thought to be synonymous with *oh*[2]
- Further, *oh*'s contribution in (18a) does not commit B to the content of A's utterance.

Instead of registering commitment, I assume that these discourse particles, like intonation, contribute information about a speaker's *expectations* in a discourse.

▷ Like intonation, I assume that discourse particles contribute **not-at-issue content**, which is registered on a participant's list of DCs.

WHY?

→ For one, their contributions can't be challenged:

(19) A: These bananas have gone rotten.
B: Huh.
A: # That's not true. You knew all along.

I also assume that the discourse particles *oh* and *huh* are another **mirative strategy** in English: they both make public a speaker's violated expectations.

[2]Gunlogson (2008) does not make any claims about *huh* in her work.

(20) *oh* and *huh* are anaphoric to a proposition p salient in the discourse s.t.:
  a. $oh(p)$ adds the following to the speaker's *DC*s:
  $\text{Exp}_{spkr}(p) \leq \text{Exp}_{spkr}(\neg p)$
  b. $huh(p)$ adds the following to the speaker's *DC*s:
  $\text{Exp}_{spkr}(p) \leq \text{Exp}_{spkr}(\neg p) \wedge \text{Exp}_{spkr}(p) > 0$

A simple example:

(21) A: Those bananas have gone rotten.
B: Huh.

(22) Context after A's utterance: ⇒

$\mathbf{DC}_A$	**Table**	$\mathbf{DC}_B$
p, $\text{Exp}_A(p) \approx 1$	$\{p\}$	

$cg : s0$, $ps = \{\{s0 \cup p\}\}$

Context after B utters *huh*:

$\mathbf{DC}_A$	**Table**	$\mathbf{DC}_B$
p, , $\text{Exp}_A(p) \approx 1$	$\{p\}$	$\text{Exp}_B(p) \leq \text{Exp}_B(\neg p)$ $\wedge\ \text{Exp}_B(p) > 0$

$cg : s0 = s1$, $ps = \{\{s0 \cup p\}\}$

Answering only with the particle:

- updates the speaker's discourse commitments with her expectations
- The falling contour on the particle invites the listener to infer that B has accepted their contribution
- in a subsequent step, this can grow the common ground and clear p from the table.

4 Putting it together

Decomposing particles and contours allows for a compositional approach with the following in mind:

Separate pragmatic computation of discourse particles and of prosodic contours allows us to make predictions about the distribution of both at particular points in a discourse.

The particular pragmatic contributions of particles and intonation are compositional, and their felicity is based on the particular contexts that they are uttered in.

- Controlling for context makes differences between *oh* and *huh* even clearer.
- Contexts that build certain discourse expectations can pull apart the differences between *oh* and *huh* utterances

4.1 Contextual restrictions

In many contexts and with many contours, *oh* and *huh* behave the same. But there are particular places where they pull apart.

Sudden realization/Out of the Blue + Neutral, falling:

(23) a. Oh. It's raining.
b. Huh. It' raining.

Correct a fact + Neutral, falling:

(24) A: Sandy is from Nebraska.
B: Oh. She's from California.
B′: # Huh. She's from California.

The following table outlines particle and contour patterns of grammaticality when *oh* and *huh* are used with Neutral, Excited and SRC contours.[3]

Sudden Realization + SRC:

(25) a. #Oh!?. It's raining!?
b. Huh!? It's raining!?

[3]Examples of all contexts can be found in Appendix A.

Table 1: Utterance contexts and contours for the particles *oh* and *huh*

Neutral falling contour	Ex	*oh*+H*L%	*huh*+H*L%
Sudden Realization	(23)	✓	✓
Implied Speaker Responsibility	(32)	✓	✓
Eavesdropping	(33)	✓	✓
Accept a fact	(34)	*	*
Contradict a statement	(37)	✓	*
Correct a fact	(24)	✓	*
Solidarity, situational gravity: high	(36)	✓	*
Solidarity, situational gravity: low	(35)	✓	✓
Excited contour	Ex	*oh*+↑H*L%	*huh*+↑H*L%
Sudden Realization	(40)	✓	✓
Implied Speaker Responsibility	(41)	✓	✓
Eavesdropping	(42)	✓	✓
Accept a fact	(47)	✓	✓
Contradict a statement	(44)	✓	*
Correct a fact	(43)	✓	*
Solidarity, situational gravity: high	(45)	*	*
Solidarity, situational gravity: low	(46)	*	*
Surprise-redundancy contour	Ex	*oh*+SRC	*huh*+SRC
Sudden Realization	(25)	*	✓
Implied Speaker Responsibility	(48)	✓	✓
Eavesdropping	(49)	✓	✓
Accept a fact	(50)	✓	✓
Contradict a statement	(53)	*/?	✓
Correct a fact	(54)	✓	✓
Solidarity, situational gravity: high	(51)	✓	✓
Solidarity, situational gravity: low	(52)	✓	✓

- The distribution of *huh* is a subset of *oh* in neutral falling and excited contexts
- The distribution of *oh* is a subset of *huh* in SRC contexts
- Shifts in acceptability across contexts and contours indicate that contour-specific pragmatic calculations are relevant:
  - ▷ Fact acceptance, for example, cannot co-occur with the neutral falling contour and any of the particles, but changing to an excited or SRC contour shifts grammaticality judgments

One place where the particles pull apart is in cases of fact correction with neutral prosody:

(26) A: Sandy is from Nebraska.

B: Oh. She's from California.
H*-L% H*-L%

B′: #Huh. She's from California.

Using the Farkas & Bruce (2010) Tabletop model and the proposed meanings of the particles and contours, we can derive the difference between *oh* and *huh* in **neutral fact correction cases**:

- For *oh:*
  - ▷ Knowing a fact q about the world implies high expectation for it to be true:
    $\text{Exp}_{spkr}(q) \approx 1$.
  - ▷ If p would make q false, a speaker can signal this discrepancy with *oh*:
    If you believe q, you don't believe p to be true.
    That is, $\text{Exp}(p) \leq \text{Exp}(\neg p)$
- For *huh:*
  - ▷ Knowing a fact q about the world implies high expectation for it to be true:
    $\text{Exp}_{spkr}(q) \approx 1$.
  - ▷ If p would make q false, a speaker **cannot** signal this discrepancy with *huh*:
    The restriction that expectation for $p > 0$ leads to a pragmatic inconsistency

The listener can infer the following:

(27) Context after A's utterance: ⇒

$\mathbf{DC}_A$	**Table**	$\mathbf{DC}_B$
p, $\text{Exp}_A(p) \approx 1$	$\{p\}$	

$cg : s0$, $ps = \{\{p\}\}$

Context after B utters *huh* + q:

$\mathbf{DC}_A$	**Table**	$\mathbf{DC}_B$
p, $\text{Exp}_A(p) \approx 1$	$\frac{\{q\}}{\{p\}}$	q, $\text{Exp}_B(q) \approx 1$, $[\text{Exp}_B(p) \leq \text{Exp}_B(\neg p)$ $\wedge\ \text{Exp}_B(p) > 0]$

$cg : s0 = s1$, $ps = \{\{s0 \cup p\}, \{s0 \cup q\}\}$

a. **Falling contour:** $\text{Exp}_B(q) \approx 1$

b. ***huh*:** $\text{Exp}_B(p) \leq \text{Exp}_B(\neg p) \wedge \text{Exp}_B(p) > 0$

c. **Pragmatic inconsistency:** $q \rightarrow \neg p$, infer $\neg p = 1$. Since q and p are contrary, one cannot commit to q being true and to p being possible if p must be > 0.

If B knows his information is correct, there is no way for her to signal that with *huh.*

Putting uncertainty back into play reverses this:

(28) A: Sandy is from Nebraska.
B: Oh. I thought she was from California.
B′: Huh. I thought she was from California.

The opposite pattern emerges from the **SRC paired with out-of-the-blue contexts**:

(29) *Speaker walks out of windowless building, with no expectation for the weather*

a. #Oh? It's raining!?

b. Huh!? It' raining!?

When the speaker addresses herself, a Quantity implicature arises from

- the interaction of the SRC + particle meaning
- the SRC anchored to the utterance

The listener assumes that the speaker must have had some reason for using *oh* over *huh* They deduce that the speaker expects q to be the case:

(30) *The fact that it's raining* $= p$ *It is raining* $= q$

Context after B utters *oh* + q:

$\mathbf{DC}_A$	**Table**
q, $[\text{Exp}_A(q) \approx 1$ $\wedge\ \text{Exp}_{A,B}(p\|q) \approx 0]$	$\frac{\{q\}}{\{p\}}$

$cg : s0 = s1$, $ps = \{\{s0 \cup p\}, \{s0 \cup q\}\}$

a. **SRC:** $\text{Exp}_B(q) \approx 1 \wedge \text{Exp}_B(p|q) \approx 0$

b. ***oh*:** $\text{Exp}_B(p) \leq \text{Exp}_B(\neg p)$

c. **Pragmatic inconsistency:** $q = \neg p$. Speaker believes $q = 1$, infer $\neg p = 1$.
There is no restriction that p be 0.
The speaker is both the addressee and the source of q; they hold one belief about the actual facts in the world, p, and another about their expectations, $q = \neg p$.

5 Future directions and Conclusions

5.1 German Modal Particles

One goal is to extend this methodology to German Modal particles (*doch, ja, eben, halt*), which are also markers of mirativity (Krifka 2013, Kraus 2015).

- Can the same particle + contour additive relation be established here as well?

Some departures from the English methodology include:

- Fewer factors to control for:
German modal particles are integrated into the utterance as a whole and do not form their own intonational phrases
- Modal particles in German that can be variably stressed. The prominence that they carry should be part of the pragmatic reasoning about the particle.

5.2 Conclusions

This work has identified two discourse particles and one prosodic contour that are **English mirative strategies.**

It has also argued:

- Discourse particles must be analyzed with their prosodic environment in mind
- We must separate the pragmatic contribution of discourse particles from the prosodic contours they occur with

Thank you!

References

Aikenvald, Alexandra. 2004. *Evidentiality.* Oxford University Press.

Aikenvald, Alexandra. 2012. The essence of mirativity. *Linguistic Typology* 16. 435–485.

Bartels, Christine. 1999. *The intonation of English statements and questions.* Garland Publishing.

DeLancey, Scott. 1998. Mirativity: the grammatical marking of unexpected information. *Linguistic Typology* 1. 33–52.

DeLancey, Scott. 2001. The mirative and evidentiality. *Journal of Pragmatics* 33. 369–382.

Farkas, Donka & Kay Bruce. 2010. On reacting to assertions and polar questions. *Journal of Semantics* 27. 81–118.

Farkas, Donka & Floris Roelofsen. 2017. Division of labor in the interpretation of declaratives and interrogatives. *Journal of Semantics* 1–53.

Féry, Caroline. 1993. *German intonational patterns.* Tübingen: Max Niemeyer Verlag.

Gunlogson, Christine. 2001. *True to form: rising and falling declaratives as questions in English*: UC Santa Cruz dissertation.

Gunlogson, Christine. 2008. A question of commitment. *Commitment: Belgian Journal of Linguistics* 22. 101–136.

Gussenhoven, Carlos. 2002. Intonation and Interpretation: Phonetics and Phonology. *In Proceedings of Speech Prosody 2002* .

Hayes, Bruce. 1995. *Metrical stress theory: Principles and case studies.* Chicago: The University of Chicago Press.

Kraus, Kelsey. 2015. *Pragmatics of German doch*: University of California Santa Cruz MA thesis.

Krifka, Manfred. 2013. Response particles and discourse particles: ja, doch (and eben).

Krifka, Manfred. 2015. Bias in commitment space semantics: Declarative questions, negated questions, and question tags. In *Proceedings of SALT 25*, 328–245.

Ladd, Robert. 1980. The structure of intonational meaning: Evidence from English .

Ladd, Robert. 2008. *Intonational phonology.* Cambridge Studies in Linguistics.

Malamud, Sophia & Tamina Stephenson. 2015. Three ways to avoid commitments: Declarative force modifiers in the conversational scoreboard. *Journal of Semantics* .

Rett, Jessica & Sarah Murray. 2013. A semantics account of mirative evidentials. *Proceedings of SALT 23* 453–472.

Sag, Ivan & Mark Lieberman. 1975. The intonational disambiguation of indirect speech acts. *Chicago Linguistics Society* 487–497.

Appendix A

Neutral falling contour + contexts

Utterances and contexts:

The following contexts overlap with *huh* and *oh*:

(31) a. Oh. It's raining. Sudden realization
b. Huh. It' raining.

(32) A: There's no baking powder! Implied speaker responsibility
B: Oh. You didn't put it on the list.
B′: Huh. You didn't put it on the list.

(33) *Character speaking to other characters in a film:*
A: It's Tess Ocean! Eavesdropping
B: *Moviegoer, observing the film:* Oh. It's clearly Julia Roberts.
B′: Huh. It's clearly Julia Roberts.

(34) A: *Alex Trebek, on Jeopardy:* What's the capital of Delaware?
B: Dover. Accept a fact
A: It is Dover.
B: # Oh. I was right.
B′: # Huh. I was right.

(35) A: I spilled coffee on my new shoes. **Low** situational gravity
B: Oh. That's awful.
B′: Huh. That's awful.

But *oh* and *huh* pull away in the following situations:

(36) A: I just found out I have cancer. **High** situational gravity
B: Oh. That's awful.
B′: # Huh. That's awful.

(37) A: The server's down. Direct contradiction
B: Oh. no it isn't. (It just looks like that).
B′: # Huh. No it isn't.

(38) A: Sandy is from Nebraska. Fact Correction
B: Oh. She's from California.
B′: # Huh. She's from California.

(39) A: Sandy is from Nebraska.
B: Oh. I thought she was from California.
B′: Huh. I thought she was from California.

Excited contour + contexts

Judgments stay the same, only speaker affect changes (calculated from prosody):

(40) a. Oh! It's raining! Sudden Realization
b. Huh! It' raining!

(41) A: There's no baking powder! Speaker Responsibility
B: Oh! You didn't put it on the list!
B′: Huh! You didn't put it on the list!

(42) *Character speaking to other characters in a film:*
A: It's Tess Ocean! Eavesdropping
B: *Moviegoer, observing the film:* Oh! It's clearly Julia Roberts!
B′: Huh! It's clearly Julia Roberts!

(43) A: Sandy is from Nebraska. Fact Correction
B: Oh! She's from California!
B′: # Huh! She's from California!

(44) A: The server's down. Contradiction
B: Oh! no it isn't! (It just looks like that).
B′: # Huh! No it isn't!

Changes from neutral contexts, *oh* and *huh* behave the same:

(45) A: I just found out I have cancer. **High** situational gravity
B: # Oh! That's awful!
B′: # Huh! That's awful!

(46) A: I spilled coffee on my new shoes. **Low** situational gravity
B: ?/# Oh! That's awful!
B′: ?/# Huh!. That's awful!

(47) A: *Alex Trebek, on Jeopardy:* What's the capital of Delaware?
B: Dover. Accept a fact
A: It is Dover.
B: Oh! I was right!
B′: Huh! I was right!

SRC + contexts

Cases of overlap: where *oh* and *huh* are all licit:

(48) A: There's no baking powder! Speaker Responsibility
B: Oh? You didn't put it on the list!/?
B′: Huh? You didn't put it on the list!

(49) *Character speaking to other characters in a film:*
A: It's Tess Ocean! Eavesdropping
B: *Moviegoer, observing the film:* Oh? It's clearly Julia Roberts!
B′: Huh? It's clearly Julia Roberts!

(50) A: *Alex Trebek, on Jeopardy:* What's the capital of Delaware?
B: Dover. Accept a fact
A: It is Dover.
B: Oh? I was right?/?
B′: Huh? I was right?/!

(51) A: I just found out I have cancer. **High** situational gravity
B: Oh? That's awful!
B′: Huh? That's awful!

(52) A: I spilled coffee on my new shoes. **Low** situational gravity
B: Oh? That's awful!
B′: Huh? That's awful!

Huh is licit in all cases outlined in the table. In three cases, *oh* is not:

(53) A: Sandy is from Nebraska. Fact Correction
B: #Oh? She's from California!
B′: Huh? She's from California!

(54) A: The server's down. Contradiction
B: #Oh? no it isn't! (It just looks like that).
B′: Huh? No it isn't!

(55) a. #Oh? It's raining? Sudden Realization
b. Huh? It' raining?