Like, hedging and mirativity. A unified account.

Abstract

We draw a connection between 'hedging' use of the discourse particle *like* in American English and its use as a mirative marker of surprise. We propose that both uses of *like* widen the size of a pragmatically restricted set – a pragmatic halo vs. a doxastic state. We thus derive hedging and surprise effects in a unified way, outlining an underlying link between the semantics of *like* and the one of other mirative markers cross-linguistically.

1 Introduction

Mirative expressions, which mark surprising information (DeLancey 1997), are often expressed through linguistic markers that are also used to encode other, seemingly unrelated meanings – e.g., evidential markers that mark lack of direct evidence (Turkish: Slobin and Aksu 1982; Peterson 2010; Cheyenne: Rett and Murray 2013; Cuzco Quechua: Faller 2002; Ostyak: Nikolaeva 1999 a.o.)

In this paper, we observe that the English discourse particle *like*, among its varied functions, features a similar polysemy. On its widely documented *hedging* use, it has been widely shown that *like* signals a "nonequivalence of what is said and what is meant" (Schourup 1985; see also Siegel 2002; Sharifian and Malcom 2003; D'Arcy 2005).

(1)   The shoes were *like* 20 dollars.

(2)   There's a foreign boy in my group and he's *like* European or something.

(3)   One of them was called *like* Prophecy.

However, we show that *like* also has a previously undocumented *mirative* use, in which the presence of this marker signals that the embedded proposition is surprising or unexpected.

(4)   Never thought I would say this, but Lil' Wayne, is *like*...smart.

(5)   My friend I used to hang out with is *like* ...rich now.

(6)   Whoa! I *like* ...totally won again!

In (4), the speaker is signaling that they did not expect to discover that Lil Wayne is smart; in (5) the speaker is surprised to learn that their former friend is now rich; and in (6) the speaker is surprised by the fact that they won again.

After presenting several diagnostics that point to a genuine empirical difference between these uses, we argue that they do in fact share a core grammatical function: both trigger the expansion of a pragmatically restricted set: the pragmatic halo of an expression for the hedging variant; and the doxastic state of the speaker for the mirative use. We derive hedging and mirativity as effects of the particular type of object to which *like* applies.

2 The empirical picture

2.1 Similarities

From a compositional standpoint, mirative and hedging *like* are encoded at the level of non-at-issue content. First, they both fail to interact with logical operators, e.g. negation (in (7)-(8)). Second, they cannot be directed agreed or disagreed with by the interlocutor with responses that deny/confirm the truth of proposition ((9)). Instead, they can only be objected to via constructions that call into question more general felicity conditions, such as the *Hey, wait a minute!* response (in (10), Shanon 1976; von Fintel 2004).

(7)   Mary's shoes don**'t** cost *like* $20.
        Intended: # It is not the case that the speaker is hedging the claim that M's shoes cost $20.

(8)   My friend is**n't** *like* . . . rich now.
        Intended: # It is not the case that the speaker is surprised that their friend is rich.

(9)   B (in resp. to (7)) : #<u>No, that's false!</u>. Why do you sound so tentative?
        B (in resp. to (8)): #<u>No, that's false!</u>. Why do you sound so surprised?

(10)   B (in resp. to (7)): ✓<u>Hey, wait a minute.</u> Why do you sound so <u>tentative?</u>
        B (in resp. to (8)): ✓<u>Hey, wait a minute.</u> Why do you sound so <u>surprised?</u>

2.2   Differences

While both are non-at-issue, the two uses can be teased apart through several diagnostics. First, hedging *like* can be either prosodically integrated with the rest of the utterance, or be pronounced as a parenthetical (represented e.g. with commas). By contrast, mirative *like* is necessarily followed by a longer prosodic pause (represented henceforth with ellipses). As such, while a hedging interpretation is normally available when *like* is prosodically integrated, a mirative is unavailable if there is no pause following *like*, as in (12).

(11)   ✓Mary's shoes only cost *like* $20.

(12)   # My friend is *like* rich now.

Second, mirative *like* is compatible with markers that indicate full commitment to the proposition on the part of the speaker, such as *totally* (in its speaker-oriented uses, see Irwin 2014; Beltrama 2017) or *definitely*, e.g. (13). Hedging *like* cannot be followed by such modifiers, e.g. (14).

(13)   # M's shoes only cost, like, <u>totally</u> $20.

(14)   ✓Whoa! I like . . . <u>totally</u> won again!

Third, in the scope of reportive verbs, the contribution of hedging *like* can be ascribed either to the speaker or the matrix subject (15); with mirative uses, the surprise effect contributed by *like* can be exclusively ascribed to the speaker (16).

(15)   <u>John said that</u> M's shoes cost *like* twenty dollars.   ✓John; ✓Speaker

(16)   <u>John said that</u> his friend is *like* . . . rich now.   # John; ✓Speaker

Fourth, while both constitute part of the non-at-issue content, mirative and hedging *like* interact with the propositional content of the utterance dif-

ferently. The hedging use can have an effect on the truth conditions, at least indirectly (Siegel 2002). In (17), A is objecting to B's denial by saying that, by virtue of using *like* as a hedge, the first utterance should count as true. The same move is not possible for mirative uses (18), where the use of *like* cannot be used as evidence for contesting the truth-value judgment of the hearer.

(17)   A: Mary's shoes only cost *like* 20$.
        B: No, they cost 14 dollars.
        A: ✓Well, I said *like*.

(18)   My friend is . . . *like* rich now!
        B: No! He's working class!
        A: # Well, I said *like*.

Fifth, mirative *like*, contrary to its hedging counterpart, interacts with the illocutionary mood of the utterance: it is restricted to assertions, and appears to be infelicitous in non-assertive moves, e.g. constituent questions or imperatives (20). Hedging *like* presents no such restrictions (19).

(19)   ✓Bring me *like* 20 dollars! (= the requested amount can be approximate)
        ✓How *like* much did the shoes cost? (= the speaker would be satisfied with a rough estimate)

(20)   # Be *like*. . . smart now! (= I am surprised by the fact that you can be smart now)
        # Who is *like*. . . smart now? (= I am surprised by the fact that you are smart now)

Finally, mirative and hedging *like* engender different types of unacceptability when their content is overtly denied. While denying hedging *like* has a contradiction-like effect (21), denying mirative *like* gives rise instead to Moore's Paradox (22), where the infelicity is due to conflicting belief states of the speaker, rather than contradiction *per se* (see Rett and Murray 2013 for a similar observation on indirect vs. mirative evidentials).

(21)   #The shoes are *like* $20, and by that I mean they exactly $20.   Contradiction

(22)   #Lil Wayne is *like*. . . smart, and I totally expected that!   Moore's paradox

In sum, the two types of *like* have distinct grammatical properties. This suggests that the mirative contribution represents a genuinely distinct use of *like*, not just a special instance of the hedging use.

3 Proposal

3.1 Hedging *like*: widening halos

We propose that hedging *like* operates on the *pragmatic halo* of an expression, lowering the degree of deviation from the form's literal meaning that can be tolerated in a particular communicative situation.[1] We build on Morzycki (2011) to recast halos as a set of alternative expressions that bear a contextually determined *degree of resemblance* to the linguistic forms they apply to. Resemblance is modeled as a cross-categorial "approximateness" relation $\approx$, which holds between two objects if they are similar to at least degree d in context C, where d is a number with a value between 0 and 1.

(23) $[\![\alpha]\!]^{d,C}=\{\beta: \beta \approx_{d,C} \alpha\}$

(24) $\beta \approx_{d,C} \alpha$ iff, given the ordering imposed by the context C , β resembles α to d and α and β are of the same type.

Crucially, different contexts impose different standards of required similarity. The higher the minimum degree of resemblance, the smaller the halo; vice versa, the lower the degree, the larger the halo. Let as assume, for example, that the answer about the price of shoes (1) is uttered in three different contexts: **C1**: by a college student during a conversation at a bar, where a large amount of deviation form the literal meaning is tolerated (d set at 0.7); **C2**: by a frequent customer of a store to someone who has asked them about the price, where a higher degree of precision ought to be expected (d set at 0.9); **C3**: by a shop attendant in response to a customer inquiry, where maximal precision is expected (d set at 1, the maximum). The resulting interpretation halos are as follows.

C1: $[\![\$20]\!]^{0.7,C} = \{\$17, 18, 19, 20, 21, 22, 23\}$
C2: $[\![\$20]\!]^{0.9,C} = \{\$19, 20, 21\}$
C3: $[\![\$20]\!]^{1,C} = \{\$20\}$

Against this background, *like* widens the size of the halo of a linguistic expression, signaling that a less stringent standard of precision ought to be adopted in interpreting that expression in the context. This contribution amounts to fixing the degree of similarity required for a same-type expression β to be be part of the halo of α to a lower value (d', below) than the one imposed by the context (i.e. d). This expands the set of admissible interpretations that the target expression can receive in the communicative context in which *like* is used.

(25) $[\![\text{Like}_H]\!]=\lambda[\![\alpha_x]\!]^{d,C}.\exists\text{d':}\beta_x\approx^{d'}\alpha_x\wedge\underline{d'{<}d}$

If applied to **C1** above, for example, using *like* amounts to expressing that there exists a degree to which an alternative number word counts as similar enough to \$20, and that this degree is lower than the one imposed by the context (i.e., 0.7).

(26) $[\![\text{like}]\!]([\![\$20]\!]^{0.7,C})$ = $\exists\text{d'}:$Number Word$\approx^{d',C}$ 20 $\wedge\text{d'}{<}0.7$

Note that the distribution of hedging *like* is not necessarily tied to orderings rooted in cardinalities or amounts; rather, the particle applies to a much wider domain of expressions, as shown by (2)-(3) above. The proposed account is flexible enough to handle such cases. In particular, the cross-categorial nature of the $\approx$ relationship, correctly predicts that, as long as alternatives can be ranked according to similarity relationship to the target expression, a standard of minimum resemblance will be available, licensing the use of *like*. In the case of (2) above, for example, the alternatives could involve predicates denoting the property of being from a non-European country, ranked in terms of the geographical proximity between such a country and Europe. In cases like (3), *like* can even target orders of similarity that are *not* based on the semantics of the predicate. Here, the ordering on which *like* operates seems to be paraphrasable as *phonetic resemblance*, where alternatives are ranked on the basis of how closely their phonological form approximates the one of the target. Adding *like* then amounts to slackening the demands on phonological similarity, including alternative pronunciations that would normally be deemed as too dissimilar from the original one to be considered as a viable alternative.

(27) $[\text{Prophecy}]^{0.9,C}$ = {pɹafəsi, pɹɑ:fəsi,pɾafəsi}

(28) $[\![\text{like}]\!]$ $([\text{Prophecy}]^{0.9,C})$ = {pɹafəsi, pɹɑ:fəsi, pɾafəsi, bɹafəsi, pɹavəsi}

3.2 Mirative *like*: widening belief states

We argue that, from a semantic standpoint, mirative *like* performs an analogous type of oper-

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[1] The analysis is similar in spirit to the one modeled by Siegel 2002; the crucial difference is that we assume that the pragmatic halo of the expression is not introduced by *like*, but is *always* available for modification. This assumption is independently motivated by the observation that imprecision is a general pragmatic phenomenon underlying the interpretation of language, even in the absence of specialized modifiers.

ation to its hedging counterpart. Specifically, we propose that mirative *like* relaxes the threshold of stereotypicality required for a world to be part of the the doxastic state of a speaker, admitting worlds that were previously pragmatically excluded by virtue of being outlandish; surprise ensues as a result. As a first step of the analysis, we suggest that doxastic states are pragmatically restricted: they exclude *outlandish* worlds, that is, worlds that, while compatible with our beliefs, are so distant from the actual one that they can be ignored for pragmatic purposes. Evidence for this assumption comes from the observation that modals typically quantify over modal bases that include only worlds that are reasonably similar to the actual one, as opposed to every possible world (see Klecha 2014 for evidence and discussion).

We suggest that such plausibility-based restrictions apply to doxastic states: the set of worlds that we consider to be possible candidates for the actual world on the basis of what we know and believe. We thus enrich the notion of a doxastic state by suggesting that, for an individual anchor *x*, Dox includes worlds that are not only compatible with what the speaker knows/believes, but that are also reasonable. We build on Klecha (2014) in modeling non-outlandishness in terms of ST, an operator that applies a world *v* and an evaluation world *w*, and returns the degree of plausibility of *v* given what we know in *w*. Whether a world counts as sufficiently plausible is determined by a parameter θ, which represents the minimum threshold of plausibility that a world must meet. On a par with pragmatic halos, the standard of plausibility is imposed by the context.

(29) $ST(v)(w)^{\theta}=1$ iff $ST(v)(w) \geq \theta$ in C

Accordingly, a doxastic state Dox contains those worlds that must satisfy two characteristics: (i) they are compatible with what the speaker knows/believes, per the original definition (Hintikka 1962; Pearson 2017), (ii) they are greater or equal in plausibility to the threshold θ. Finally, we assume that Dox itself is parameterized not just to an individual and a world of evaluation, as in Hintikka's original account, but also to a threshold.

(30) $\mathbf{Dox}^{\theta}_{x,w}=\{w'$:
         1. it s compatible with what x believes in w for w to be w';
         2. $ST(w')(w) \geq \theta$ in C}

We propose that mirative *like* signals that a speaker uttering an assertion is relaxing the plausibility threshold of their doxastic state, signaling that their set of candidate worlds now include worlds that, due to their low plausibility, were previously excluded. To see how this work, let us consider the anchor proposition of (5) again.

(31)   *p* = My friend is rich now.

First, let us imagine that there are four possible worlds: two in which *p* is true, *w11* and *w22*; and two in which *p* is false, *w33* and *w44*. Furthermore, let us assume that in the actual world *w1* the possibility of the person in question being rich is so remote that we can safely rule it out as implausible. As such, all worlds in which the person is rich have very low stereotypicality value. Hence, for θ set at 0.1, the doxastic state of a speaker for evaluation world *w1* contains only ¬*p* worlds.

(32)   ST(w1)(w11)=0.05; ST(w1)(w22)=0.02; ST(w1)(w33)=0.7; ST(w1)(w44)=0.8

(33) $\text{Dox}^{0.1}_{x,w1}$ = {w33, w44}

Finally, let us now imagine that in *w1* the friend wins the lottery, making *p* true. What happens if the speaker above learns that *p* and intends to assert it? As their doxastic state stands, *p* would not be assertable. Because the doxastic state only contains ¬*p*-worlds, the speaker could never be in the position of believing that *p*, let alone assert it (in (34)). To make this possible, the pragmatic restrictions in place on the doxastic state need to be relaxed, lowering the threshold of stereotypicality to the minimum value that allows us to admit the *p* worlds into Dox, eliminate the ¬*p* ones, and, eventually, assert the proposition. The target doxastic space is represented in (35).

(34)   After *learn*(x)(p): $\text{Dox}^{0.1}_{x,w1}$ = {w11,w22} ∩ {w33, w44} = {∅}

(35)   After *learn*(x)(p): $\text{Dox}^{0.02}_{x,w1}$ = {w11,w22} ∩ {w11, w22, w33, w44} = {w11,w22}

We suggest that mirative *like* precisely marks such a downward shift in the speaker's threshold of stereotypicality, operating at the level of an assertion's sincerity conditions. Specifically, an assertion with mirative *like* has the following sincerity conditions: (i) that the speaker's belief that *p* (Searle 1969), as is standard for all assertions; (ii) that the doxastic state is relativized to a lower stan-

dard of plausibility θ' than the standard θ that applied before learning that p.

(36) "My friend is *like* ...rich now." ass. in w.
   (i) $\forall$w': w' $\in$ Dox$_{x,w}^{\theta'}$, p(w') = 1
   (ii) $\theta' < \theta$: ST(w')(w) $\geq \theta$ before *learn*(x)(p)

On this view, the surprise effect conveyed by *like* originates in association with the operation of revising the plausibility standard for the worlds in the doxastic state. If outlandish worlds must be allowed in order to assert p, it follows that the content of p itself deviates from our expectations/assumptions about the world, engendering the mirative flavor of this use of the particle *like*.

4   Mirativity vs hedging

In the proposed analysis, both the hedging and the mirative effects of *like* are underlied by the same core operator, whereby the particle relaxes a context-sensitive pragmatic restriction that determines the cutoff point for what elements are part of, respectively, a pragmatic halo and a doxastic state. It is important to note that the pragmatic restrictions enacted by *like* respond to very similar pragmatic demands in both the hedging and mirative uses. Assuming a certain amount of deviation from the truth conditions of an expression and its actual interpretation allows us to describe the world in a perspicuous way, sparing us the burden of providing unnecessarily fine-grained details; similarly, ruling out outlandish worlds allows us to work with fewer candidates in our quest for achieving a representation of the actual world, sparing us "the cognitive difficulty of processing unexpected/non-stereotypical propositions" (Klecha 2014: 144).

What changes is the route through which such pragmatic benefits are attained: in the case of halos, being imprecise amounts to accepting elements – i.e., alternative same-type expressions – that strictly speaking *shouldn't* be there; in the case of doxastic states, being imprecise means ruling out elements – i.e., candidate worlds – that strictly speaking *should* be there. This difference, in turn, helps us understand why only hedging *like* seems to have a weakening effect on the assertion, while mirative one doesn't. In our account, the difference is grounded not in the contribution of *like per se* but in the different interactions between the size of the set and pragmatic strength associated with halos and doxastic states. In the case of ha-

los, a larger set of admissible alternatives dilutes the strength of the assertion: because more possibilities remain open, the assertion will allow us to learn less about the state of the world than the its *like*-free counterpart. In the case of doxastic states, considering non-stereotypical worlds is a pre-condition for making an assertion that leads us to learn *a lot* about the world. The use of *like*, thus, indirectly leads us to *narrow down* the options for the current world. Even though the particle does signal that more worlds are being considered, its presence is followed by an assertion that has very high informative value, explaining the strengthening effect of the mirative variant.

5   The cross-linguistic picture

The question arises as to how *like* relates to similar polysemous manifestations of mirativity cross-linguistically. We observe that hedging *like* and indirect evidentials, while obviously distinct, feature one similarity. Just like widening a halo signals weakened commitment to the utterance, a sentence marked with an indirect evidential suggests that the speaker isn't as committed to p as if they would be if direct evidence was present (Peterson 2002). As such, both hedging and indirect evidentiality make $\neg p$ worlds salient in comparison to their non-hedged/direct counterparts. Notably, it has been argued that the underlying presence of $\neg p$ option, for instance modeled in terms of a prior $\neg p$ expectation/belief (Backer 1970), is also a defining component of the expression of surprise, as shown by the fact that predicates expressing surprise, on a par with negation, can also license NPIs (Linebarger 1987; Giannakidou 1999). Accordingly, the connection between weakened commitment and mirativity appears to emerge in variety of phenomena besides evidentiality, including subjunctive selection under emotive factives in Romance (Giannakidou and Mari 2015,Giannakidou and Mari 2016), and the use of modifiers like *some* in English (Stevens and Solt 2017). Together with evidentials, such cases point to a principled connection between negation, epistemic states, and the encoding of surprise, which surfaces differently across languages and constructions. In this perspective, the case of *like* represents a step forward towards exploring this (still largely) uncharted domain.

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