1 Mirativity, an introduction

• mirativity: the expression of exceeded expectation

(1) a. John arrived on time.
   b. (Wow,) John arrived on time!

• the ‘expression’ bit (Sadock and Zwicky, 1985; Kaplan, 1997; Michaelis, 2001; Castroviejo-Miró, 2006; Rett, 2011)

(2) I am surprised that John arrived on time.
   – undeniable

(3) A: (Wow,) Those cupcakes are vegan!
   B: No, they’re vegetarian.
   B’#: No, you’re not surprised/you knew exactly how incredible it was.

   – unembeddable

(4) %(Wow,) John didn’t arrive on time!

   – always speaker-oriented

(5) a. #Mary said John arrived on time!
   b. *Where did John arrived on time!

• the ‘exceeded expectation’ bit

   – Rett (2011); Merin and Nikolaeva (2008): speaker’s expectations violated or exceeded (cf. ‘speaker surprise’)

   “No matter how high my expectations might have been, what I have just heard exceeded them”
   (DeLancey, 2001, 38).

   – that an expectation has been violated (whether expressed or stated) can be flattering or insulting, depending
     on how one characterizes the relevant expectations.

(6) You did better on this test than the faculty expected you to.

   – it seems as though we can’t just say it’s an expression of emotion generally

     * ‘heightened emotivity’ (Cruttenden, 1986; Sadock and Zwicky, 1985) (“emotionality of the non-boredom,
       non-sorrow type”)

     * ‘an emotive attitude’ (Chernilovskaya et al., 2012)

   – but it seems as though there’s an element of suddenness or spontaneity:

     * ‘unanticipated/novel information’ or ‘unprepared mind’ (DeLancey, 1997, 2001; Peterson, 2010)

     * a more or less spontaneous reaction to a new, salient, often surprising event” (Aikhenvald, 2004, 197)

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2 Mirativity across languages and constructions

2.1 Independent miratives

- exclamation intonation (e.g. sentence exclamation)
  - the prototypical ‘surprise’ intonation: steady Rise, abrupt Fall contour (Cruttenden, 1986) plus emphasis (e.g., lengthening effects, Bartels, 1999), but this varies across languages and across types of exclamation

- exclamation intonation + marked syntax (e.g. exclamatives)¹

(7)  
  a. (My,) What delicious desserts John bakes!  \(wh\)-exclamative
  b. (Boy,) Does John bake delicious desserts! inversion exclamative
  c. (My,) The delicious desserts John bakes! nominal exclamative

- mirative sentence particles (Data from Peter Sutton (p.c.); http://en.wiktionary.org/wiki/-pää.)
  - in Finnish, -pää “expresses that the speaker is surprised at or astonished by something” (Wiktionary)

(8) Tääilläpää on paljon kukkia!
  Ooh lots of flowers are here!

- mirative adverbials, Mandarin (Wu, 2008, ‘evaluative modals’).

(9) Zhangsan **guoran/jingran** lai le.
Zhangsan **guoran/jingran** come PART
‘Zhangsan came (as expected/not expected by the speaker).’

2.2 Mixed-expression miratives

- ‘mixed expressives’, example from Frege (1892) via Gutzmann (2011):

(10)  
  a. This dog howled the whole night.
  b. This cur howled the whole night.

- mirative conjunctions: second conjunct is surprising independently of the first (contra adversative conjunctions)

(11) On zabolel **da** i **umer**.
  he fell ill **CONJ PTCL** died
  ‘He fell ill and died (I did not expect it).’
  **Russian**, (Malchukov, 2004, 187)

  - sometimes glossed as ‘lo and behold’

- expressive intensifiers (Gutzmann and Turgay, 2011)
  - sau (‘female pig’); total (‘totally’); and voll (‘fully’) express a higher degree than sehr (‘very’)
  - also differ from sehr in that they express speaker attitude, which can’t be denied

(12)  
A: Die Party war **sau** cool.
the party was **EI** cool
  ‘The party was very cool (I can’t believe how cool!).’
  (my gloss – JR)

(13)  
B: Nee, **so** cool war die Party nicht, auch wenn sie sehr cool war.
  no that cool was the party not, even if it very cool was
  ‘No, the party wasn’t that cool, even if it was very cool.’

(14)  
#B: Nee, das **ist** dir doch egal.
  no that is you **PART** equal
  ‘No, you don’t care.’

¹An aside: a difference between sentence exclamations and exclamatives with respect to descriptive content:

(i) Minimal pair from Rett (2011)
  
a. A: Wow, John bakes delicious desserts!
  b. A: What delicious desserts John bakes!
  B: No, he doesn’t, these are store-bought.
  B: #No, he doesn’t, these are store-bought.

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2.3 Dependent miratives

- markers whose mirative interpretation is not always available, i.e. dependent on context or descriptive content
- mirative evidentials are evidentials that can receive a mirative interpretation (generally a non-direct evidential)

2.3.1 Dependent on context

- mirative evidentials dependent on context are those which mark mirativity if the speaker has direct evidence for the scope proposition, and indirect evidence otherwise

(15) Moto jo-\text{nu}-e.
    motorcycle be-EVID-DECL
    speaker hears motor: ‘It is apparently a motorcycle.’
    Tsafiki (Dickinson, 2000)

(16) \text{\textasciitilde} nagw-n kots-hl ‘on-n.
    EVID-1sg cut.3sg-CND hand-1sg
    speaker sees blood at his feet: ‘I must have cut my hand.’
    speaker sees cut hand: ‘I cut my hand!’
    Gitksan (Peterson, 1999)

- related: alternation is (sometimes) conditioned by the first person

• other examples: Turkish -\text{mi\~s} (Slobin and Aksu, 1982); Cuzco Quechua -\text{sqa} (Fuller, 2004); Ostyak evidential verbal marker (Nikolaeva, 1999); Qiang -\text{k} (LaPolla and Huang, 2003); Tajik indirect evidential (Lazard, 2001)

2.3.2 Dependent on content

- Hare (DeLancey, 1997, 2001) (my glosses)
  - l\~o is an indirect evidential in perfect clauses

(17) Mary e-w\~e’ gh\~alay\~eyida l\~o
    Mary its-hide work.PERF l\~o
    ‘Mary worked on hides (given what I’ve inferred or heard)’

  - …and in imperfect clauses, it indicates direct perception of “unanticipated information”

(18) Mary e-w\~e’ gh\~alayed\~a l\~o
    Mary its-hide work.IMPF l\~o
    ‘Mary is working on hides (I saw, to my surprise)’

- other reports of mirative evidentials:

  - Cheyenne narrative evidential is mirative in present tense (Murray, 2010a, 2012);

(19) a. \text{\textasciitilde}E-x-hoo’koh\~oh-neho.
    3-PST-rain-NAR.SG.B
    ‘Long ago, it rained, it is said.’

b. \text{\textasciitilde}E-n\~exo’oht\~ah-e-hoono.
    3-cute-NAR.3PL
    ‘They’re cute!’

  - Georgian evidential aspect is mirative with individual-level predicates (Korotkova, 2012)$^2$

(20) a. Ramden ak’eta namc’xvar-s?
    how.many make.3SGA.3SG.aor cake-DAT
    ‘How many cakes did she make?’

b. Ramden-i gauk’etebia namcxvar-i!
    how.many-nom make.3SGA.3SGO.PERF cake-nom
    ‘Wow, she made so many cakes!’

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$^2$This might also be the case for Ostyak. Nikolaeva (1999) reports that the evidential receives a mirative interpretation when the scope proposition is first-person or in some other examples, which could be characterized as present-tense individual-level, e.g. ‘It turns out that horses can swim’ and ‘(It turns out) that her children (can) speak’ (p14).
3 Theories of mirativity

3.1 Ways of characterizing mirativity

- possible ways of encoding expression:
  1. speech-act operator or illocutionary mood (Searle, 1969; Kaplan, 1997; Rett, 2011)
    E-Force$(p)$, when uttered by $s_C$, is appropriate in a context $C$ if $p$ is salient and true in $w_C$. When appropriate, E-Force$(p)$ counts as an expression that $s_C$ had not expected that $p$. (Rett, 2011, 429)
  2. not-at-issue content (Merin and Nikolaeva, 2008; Chernilovskaya et al., 2012)
    exclamatives are characterized “as utterances expressing drastic deviations from the speaker’s expectation and occasioned by an entity or eventuality” which do not require assent and therefore affect the Common Ground directly (Merin and Nikolaeva, 2008, 57).
  3. conventional implicature (Gutzmann, 2011, based on Potts, 2005): encoded in a non-at-issue layer of a static semantics

- how can we differentiate between these?
  - can *any* mirative scope wrt tense, negations, modals?
    * mirativity scopes over negation in exclamations and expressive intensifiers;
    * evidentials scope over negation, too, so it seems likely mirative evidentials do too;
    * exclamations can’t be embedded in antecedents of conditionals or under verbs:
      \[
      \text{(21) a. It surprises me } [_{CP} \text{ how very many shoes he owns}] \\
      \text{b. It doesn’t surprise me } [_{CP} \text{ how very many shoes he owns}]
      \]
  - can *any* mirative be non-speaker-oriented in *any* construction?
    * evidential ‘interrogative flip’
    * exclamations can’t occur in questions (seems to be a clash of illocutionary mood)
    * Russian mirative conjunction $da$ $i$ “sounds weird” (though grammatical) in questions (Denis Paperno p.c.)
    * in Georgian, $wh$-clauses with the evidential morpheme are interpreted as exclamatives (Korotkova, 2012)
    * German expressive intensifiers possible in questions but remain speaker-oriented (Daniel Gutzmann p.c.):
      \[
      \text{(22) Wann steigt hier denn endlich mal $sau$ die coole Party.} \\
      \text{When goes-on here $MP$ finally once (sau) the cool Party} \\
      \text{‘When does SAU a cool party finally goes on here?’}
      \]
    * Georgian mirative evidential always receives a mirative interpretation in (matrix?) $wh$-clauses
      \[
      \text{(23) Nino-s $codnia$ kartul-i.} \\
      \text{Nino-DAT know-3SG.PERF Georgian-NOM} \\
      \text{‘Nino knows Georgian!’}
      \]
    * Cheyenne mirative evidential, in $wh$-questions: ambiguous between an exclamative and a question like
      Where on earth does John live?
  - how can a mirative sentence be challenged, and are the challenges semantic or pragmatic?
    * Murray (2010a,b): challenging evidentiality results in contradiction, crucially different from infelicity
      \[
      \text{(24) $\sharp_1 \text{É-ho’tâheva-séstse Floyd naa+oha, ná-sáa-néstó-he-Ø}.}$ \\
      \text{3-win-RPT.3SG Floyd but 1-NEG-hear.st-h(an)/e-DIR} \\
      \text{‘Floyd won, I hear, but I didn’t hear that.’}
      \]
    * This seems to parallel the behavior of evidential adverbials in English and (other) non-at-issue content
      \[
      \text{(25) a. Allegedly, Sue siphons gas from her friends’ cars. $\#_1$ Though no one has ever said so.} \\
      \text{b. Gabe, who graduated from Rutgers, teaches at UCLA. $\#_1$ He never graduated from Rutgers.}
      \]
    * but not, I think, speech act operators (cf. Moore’s paradox) or exclamations.
      \[
      \text{(26) a. It’s raining, $\#_1$ but I don’t believe it’s raining.} \\
      \text{b. Does Sue like pizza? $\#_1$ I don’t want to know}
      \]
[27] a. Gabe arrived on time for his flight! ...#I’m not surprised, I knew Gabe would be on time.
b. How incredibly early Gabe was for his flight! ...#I’m not surprised, he arrived exactly when I thought he would.

[3] A: (Wow,) Those cupcakes are vegan! 
B: No, they’re vegetarian. 

• much more data is needed!
• working hypothesis: mirativity is an illocutionary mood, or at the illocutionary-mood level
• what sort of theory, then, allows us to account for how mirative mood can interact with at-issue content?
  – Hare lā is an indirect evidential in perfect clauses and a mirative marker in imperfect;
  – Cheyenne hoono (+allomorphs) is a narrative evidential in remote past and a mirative marker in present tense

3.2 The interaction of mirative mood and (at-issue) content

• we need a three-tiered semantic theory:
  – Murray (2010a,b): three components of evidentials, each with its own effect on the common ground:
    1. the presentation of the at-issue proposition (the scope proposition)
    2. the evidential restriction: a non-negotiable update that directly restricts the CG, regarding evidence (or in the case of mirativity, speaker expectation)
    3. the illocutionary relation: proposal about what to do with at-issue content (for our purposes, assertion)

• we need to generalize the set of possible worlds $E$ invoked by E-Force to a) be anchored to other (salient) agents, and b) to access other (salient) epistemic states
  – for the inference and indirect interpretations of a mirative evidential, $E$ is the speaker’s knowledge base, from which he can infer the scope proposition
  – for the hearsay or reportative interpretation of a mirative evidential, $E$ is some third party’s knowledge based, from which the speaker can infer the scope proposition

• we need to distinguish between direct and indirect/mirative interpretations, allowing for the use of the mirative evidential in direct-evidence scenarios

• we need to anchor mirativity to tense and aspect (cf. Nikolaeva, 1999; Koev, 2011)
  1. the topic eventuality $e_t$ (supplied by $p$); and
  2. the eventuality $e_p$ throughout which $E$ holds
  – this will allow us to characterize Hare and Cheyenne, in which the evidential interpretation is available iff the topic eventuality has ended (past tense, perfect aspect)

(28) Wow, John won the race!
  a. #context: John won at 5:00; expectations were only from 2:00–4:00
  b. ??context: John won at 5:00; expectations were only from 6:00–8:00

∗ in indirect scenarios, the topic eventuality ($e_t$) always precedes the epistemic (knowledge) eventuality ($e_p$)
∗ in mirative scenarios, the topic eventuality ($e_t$) always overlaps the epistemic (expectation) eventuality ($e_p$)

• we need to separate the assertive and expressive component of e.g. E-Force

Table 1: the contribution of a mirative evidential ‘MIR-p’

<table>
<thead>
<tr>
<th>at-issue proposition</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-at-issue assertion</td>
<td>some $E$ is relevant for $p$</td>
</tr>
<tr>
<td>illocutionary mood</td>
<td>proposal to update with $p$ and $e_t \circ e_p \rightarrow$ express that $p \nsubseteq E$</td>
</tr>
</tbody>
</table>
References


Korotkova, N. (2012). The Georgian evidential perfect and how to analyze it. Ms., UCLA.


