Great pizzas, ghost negations:
The emergence and persistence of mixed expressives[1]

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Abstract. This paper presents two novel cases of mixed expressives: Italian *gran* 'big' and Cantonese *gwai2* 'ghost'. Both mixed expressives have recently undergone a shift in truth-conditional meaning, while maintaining expressivity. We argue that (i) in contrast to theories that predict its diachronic volatility, mixed expressivity need not represent a transitional stage of semantic change, but can be a diachronically stable category, and that (ii) expressive meaning and at-issue meaning diachronically proceed in a parallel fashion, interacting very little in the process. The case studies provide empirical support to current synchronic models of mixed expressivity, which assign separate semantic representations to expressive and descriptive meaning. The data also provide important insights to the poorly understood questions with regard to the diachrony and interaction of truth-conditional and expressive meaning.

Keywords: expressive meaning, mixed expressivity, language change, Italian, Cantonese

1. Introduction

In the past ten years, the notion of *expressive meaning* has drawn considerable attention in semantics. Even more recent is linguists' interest in *mixed expressives*, expressions which encode both a descriptive and an expressive contribution (McCready 2010; Gutzmann 2012). In the current paper we analyze the diachronic emergence of two novel cases within this category: *gran* in Emilian Italian, which acquires a quantifier use from an adjectival one; *gwai2* in Cantonese, which moves from being a quantifier to becoming a full fledged sentential negator. The analysis shows that in both cases expressive meaning survives through grammaticalization processes and is preserved on top of newly created truth-conditional meaning, suggesting that expressivity is not necessarily a diachronially volatile category, but can instead be a relatively stable type of meaning. Two main implications follow from the account. First, the data presented show that expressivity or emphasis need not disappear throughout trajectories of semantic change, contrary to what has been claimed in previous studies on expressions participating in Jespersen's cycle (Jespersen 1917). Second, they provide empirical support to theories assigning to expressive and truth-conditional meaning independent semantic representations, which have been outlined by a variety of authors in recent synchronic semantic work (Potts 2005, 2007, McCready 2010, Gutzmann 2012). The paper is divided as follows. Section 2 introduces the notion of mixed expressivity, with particular emphasis

on its diagnostics, as well as previous claims on its diachronic status. Sections 3 and 4 present the two case studies from Italian and Cantonese respectively. Section 5 concludes.

2. Background

In this section, we provide an overview of previous work on *expressive* meaning and *mixed expressive* meaning, both from synchronic and diachronic perspectives.

2.1. Expressive content: composition and diagnostics

In formal semantics, *expressive* meaning typically refers to a specific content which conveys non at-issue, non truth-conditional information about the emotive condition of the speaker. While the nature of the feeling is usually underspecified, expressives normally indicate that the speaker is in a "heightened emotional state" (Potts 2005, 2007; Potts and Schwarz 2008). For example, the expression *bastard* below represents a well known instance of the phenomenon. As (1) shows, this form adds nothing to the propositional content of the sentence. It merely indicates that the speaker holds a negavite attitude towards Burns.

(1)   That **bastard** Burns is a zombie.   (Gutzmann 2011: 126)
       Expressive content: Speaker doesn't like Burns.
       Truth-conditional content: None

To capture the independence of expressive content from the rest of the sentence, it has been suggested that expressivity composes on a separate, independent semantic dimension via a multi-tiered compositional mechanism (Potts 2005). The picture below illustrates this: The output of composition with an expressive is identical to the input on the truth-conditional level, while the specification on the speaker's involvement is encoded on a different tier, separated by the $\bullet$ operator.

(2) $\text{NegAttitude(Burns)}_{EXP}$
                                              $\bullet$
                                        Burns_{TC}

                               Burns   bastard
                                    NegAttitude_{EXP}

A number of diagnostics have been discussed in the literature to tease apart expressive meaning from other kinds of content (Potts 2005, 2007; Potts and Schwarz 2008). We now proceed to review several of them, which will then be regularly used throughout the paper to discuss the Italian and Cantonese data.

The first diagnostic is known as the *independence* test (Potts 2007). It shows that expressive content cannot be targeted by denials independently from the rest of the propositional content.

(3) A: That bastard Burns is a zombie.
     # B: No! I like him!   EXPRESSIVE CONTENT CHALLENGED
     ✓B': No! He's not a zombie.   PROPOSITIONAL CONTENT CHALLENGED

The second test is typically referred to as *non-displaceability*. It shows that expressive content is always bound to the here and now of the utterance situation, and cannot be shifted to the past or the future by tense operators.

(4) That bastard Burns was late for work yesterday.
     ✓INTENDED: He was on time today.
     # INTENDED: He's no bastard today, because today he was on time.

Third, the *non-embeddability* test shows that expressive content, even when syntactically embedded, is generally *not* semantically embedded. As a consequence, it cannot shift mid-utterance: Because the speaker, even under an attitude predicate with a different agent, is the anchor of the expressive, she has committed to its content, and cannot deny it later in the utterance.[2]

(5) Sue believes that that bastard Burns should be fired. #I think he's a good guy.

Finally, expressives are generally banned in predicative position, or, more generally, in any syntactic position that requires to be obligatorily filled **?**potts07). *Fucking* and *damn*, which represent notorious instances of expressivity, clearly show this restriction.

(6) I failed the {fucking/damn} test.
(7) ?? The test is {fucking/damn}.
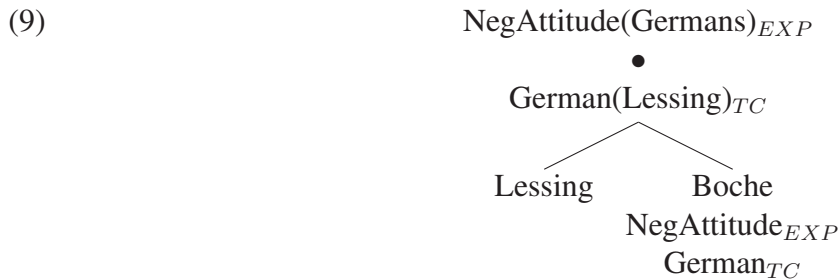
2.2. Mixed expressive content

The tests above appear to suggest that the distinction between propositional and expressive content is rather clear-cut. Yet, the typology of expressive meaning has been recently enriched with the

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[2]Note, however, that the speaker is not *always* the anchor of an expressive. While this is the default choice, it is possible to find cases where the attitude is relativized to a different agent. As an example, Potts (2007) cites the example of sarcasm, when authors can quote other people's use of expressives to mock them without obviously committing to such emotive atttidues.

novel class of *mixed expressives*. These expressions, as shown below, convey *both* expressive and truth-conditional meaning via the same morpheme (Sawada 2009; McCready 2010; Gutzmann 2011).

(8) Lessing is a **Boche**.   (Williamson 2009, discussed in Gutzmann 2011)
     Expressive content: Speaker has a negative attitude towards Germans.
     Truth-conditional content: Lessing is German.

In order to model the semantic representation of these expressions, authors have been making use of the same assumptions that govern the two-tiered compositional mechanism suggested for pure expressive terms. As the picture below shows, the output of composition with a mixed expressive is modified at both the truth-conditional and the expressive level. The two parts, however, do not interact in the composition.

(9) $\text{NegAttitude(Germans)}_{EXP}$
                                   $\bullet$
                         $\text{German(Lessing)}_{TC}$

              Lessing   Boche
                            NegAttitude_{EXP}
                                German_{TC}

Mixed expressives represent a relatively understudied class of items. Their status becomes more intriguing as instances of the category are being found in a variety of different languages, including Greek and Korean (Giannakidou and Yoon 2011), English (McCready 2010, Gutzmann 2011), Japanese (McCready 2010, Sawada 2011), German (Gutzmann 2012). Due to their recent discovery, a number of questions linger concerning the status of these expressions. On a synchronic level, more needs to be said on the nature of the compositional mechanisms that correctly derive their meaning, as well as the status of the category. In particular, the question remains open as to whether mixed expressives form a homogeneous class, or come in different flavors. On the diachronic level, little is known about the emergence of these expressions. In particular, how do expressivity and truth-conditional meaning end up co-existing in a lexical item? And what happens once both of these components become part of the lexical meaning of an expression? In the remainder of this section, we review two important models that can help us cast light on these historical questions. While geared to account for different types of phenomena and changes, such models feature an important point of convergence: In both of them, mixed expressivity emerges as a transitory stage, which is bound to be followed by a stage in which the two components no longer co-exist. The discussion will serve as the launching point for the analysis of our case studies, presented in Sections 3 and 4.

The first model which has relevant implications for mixed expressives is Traugott's *subjectification* model. Subjectification can be defined as the process whereby meaning tends to become increasingly based in the speaker's beliefs or attitudes (Traugott 1982) along a pathway which has the rise of expressive meaning as its endpoint. Note that *expressivity*, in Traugott's sense, refers to a broader semantic category than the one singled out by Potts. More specifically, she defines it as "the expression of personal attitudes to what is being talked about, to the text itself, or towards others in the speech situation". Examples include the connective *while* developing a concessive meaning out of a temporal one, or the rise of epistemic from deontic modality.

(10)   Propositional > Textual > Expressive

In this trajectory, mixed expressivity has been claimed to represent an intermediate stage between propositional and expressive meaning (Gutzmann 2013). The development of the expression *boor* in English, analyzed by Gutzmann and first discussed by Traugott (2003), represents an example of this sort. The word starts out as a simple property, and ends up developing a purely derogatory/evaluative meaning, with no reference whatsoever to the original meaning. Yet, in order to get to this stage, it went through an intermediate stage, in which both the original contribution and the evaluative one were present. The trajectory is summarized below, where "A+B" represents the intermediate stage .

(11)   a. $\text{Boor(peasant)}_{TC} \rightarrow \text{Boor(peasant)}_{TC} + \text{Neg. att.}_{EXP} \rightarrow \text{Neg. att.}_{EXP}$ (from Traugott (2003))

    b. $\text{A}_{TC} \rightarrow \text{A}_{TC} + \text{B}_{EXP} \rightarrow \text{B}_{EXP}$

The second type of models carrying implications for the status of mixed expressivity are accounts of semantic change within Jespersen's cycle. In these investigations, the focus is primarily on the emergence and development of *emphatic* meaning, especially with respect to negation. A paramount example of the phenomenon is given below: the French particle *pas* moves from having the independent meaning of "step" to becoming a purely functional operator ("not") via an intermediate step in which it serves as an emphatic marker within a discontinuous negator, together with the functional, non emphatic negator *ne*. The trajectory is illustrated below:

(12)   **Noun**: *pas* → **Complex negation**: *ne...pas* → **Plain negation**: *pas*

Expressivity and emphasis are not the exact same notion. In particular, while emphasis stems from alternative-based scalar reasoning in downward entailing contexts (Krifka 1995; Eckardt 2006) performed on the basis of the propositional content, expressivity is independently encoded in the conventional meaning of the expression, and does not interact with the truth-conditional part. Yet,

we suggest that these two notions can be treated in parallel here: They both induce non truth-conditional effects, and they both—loosely speaking—mark a move by the speaker, more than a property of the propositional content. Specifically, the intermediate step in which a complex negation features two different parts, an emphatic and a plain one, is reminiscent of the structure of a mixed expressive, where a non truth-conditional, speaker-induced contribution is layered onto a truth-conditional, purely propositional one. Even more interesting is the observation that the coexistence of emphatic and plain semantic content is predicted to be transitory: the next step of the emphasis-cum-negation coexistence is one in which the carrier of emphasis is bleached out, and only a functional meaning survives.

Crucially, this prediction aligns with what has been suggested by the subjectification models discussed above. While two models posit two different outputs—expressive meaning with subjectification and plain functional meaning with Jespersen's cycle—they both present mixed expressivity (or emphasis) as a transient category. In the current paper, however, we show that a third possibility is available. In the two case studies that we present, mixed expressivity turns out to survive semantic change and be preserved atop of newly created truth-conditional meanings, showing that this semantic category need not represent a transitional stage.

3. Italian *gran*

The first case study that we present is the Italian mixed expressive adjective *gran*, which develops a quantifier meaning in a variety spoken in the Emilia region, around the city of Bologna. As the data show, *gran* retains its expressive component while undergoing a shift in its propositional meaning, suggesting that, in this case, mixed expressivity is a stable category.

3.1. Adjectival *gran*

In Standard Italian, the adjective *gran* can be roughly translated as *great*. While we will not explore the details of its emergence, it was originally generated via truncation from *grande* (= 'big'), and then lexicalized as an independent morpheme which no longer makes reference to size, at least in the physical sense.

We begin by observing that, in Standard Italian, *gran* is a mixed expressive. On the truth-conditional level, it contributes a meaning paraphrasable as "outstanding", or "of great value". On the expressive level, it contributes an underspecified positive emotional attitude on the part of the speaker, as shown below.

(13) Marco mangiò una **gran** pizza lo   scorso mese.
      Marco ate   a   *gran* pizza the last   month
      Truth-Conditional: Marco ate an outstanding pizza last month.

Expressive: The speaker is excited about the pizza.

That an expressive component is layered onto the truth-conditional one is shown by the same diagnostics presented in the previous section. While the spirit of the tests is the same as those discussed before, the dynamics of the diagnostics has to be slightly modified to accommodate the presence of of truth-conditional component, which is instead lacking in pure expressives (see also Gutzmann (2011), McCready and Kaufmann (2013) for a similar issue).

First of all, the expressive part is not part of the at-issue meaning, as shown by the fact that it cannot be targeted in isolation by denials. The only felicitous way of denying the sentence below would be to deny the whole propositional content.

(14) a. Marco mangiò una **gran** pizza lo scorso mese.
          Marco ate   a *gran* pizza the last   month
      b. No! {#Mangiò un pizza eccellente, ma non provo nulla/✓Mangiò una pizza normale}.
          No! {#He ate an outstanding pizza, but today I don't care/✓He ate an average pizza}.

Second, the expressive component is non-displaceable. Even if we embed *gran* under a past tense operator, the expressive part does not shift. The truth-conditional one, instead, does.

(15) Marco mangiò una **gran** pizza lo scorso mese.
      Marco ate   a *gran* pizza the last   month

      a. ✓ I'm being emotional *now*. (despite past tense)
      b. **Not**: I was being emotional *then*.

Third, mid-utterance perspective shifts are only possible for the descriptive part, but not for the expressive one. In other words, while the "outstanding" part of the meaning does embed under the subject of the reportive predicate, and therefore allows the speaker to set up a contrast with her point of view, the expressive one does not. As a consequence, the contrast triggered by "but" fails.

(16) a. ✓ Marco sostiene di aver mangiato una **gran** pizza, ma per me era mediocre
          Marco says that he ate a *gran* pizza, but **I** think it was mediocre.
      b. # Marco sostiene di aver mangiato una **gran** pizza, ma a me non interessa.
          Marco says that he ate a *gran* pizza, but **I** am not excited.

Finally, we observe that *gran* is banned in predicative and postnominal positions. This observation is consistent with two important generalizations. The first one is that expressive meaning cannot

be found in the predicative position, as discussed in the previous section. The second one is that in Romance languages pre-nominal adjectives are generally more likely to trigger subjectively-connotated and non intersective readings, and therefore emerge as a better site for expressive meanings (Nespor 1988; Demonte 1999).

(17)   a.   ✓Marco mangiò una **gran** pizza.
       b.   *Marco mangiò una pizza **gran**.
       c.   *La pizza mangiata da Marco era **gran**.
            The pizza eaten by Marco was *gran*.

At the same time, it must be noted that the ban on these syntactic positions could be due to reasons that are orthogonal to expressivity. For instance, it might be a remnant of the old meaning of *gran* as a truncated form of *grande*, where erasure of the two last phonemes was due to the phonotactic interaction with the following word, and therefore made sense only in pre-nominal position. We leave investigation of this aspect to further research, and we therefore opt not to put too much weight on this data point. Yet, we believe that the syntactic restriction, in light of the properties of expressive meaning, is worth mentioning. We now move on to discuss a different use of *gran* as a quantifier, which is limited to the variety of Italian spoken in the Emilia region. As we argue in the next section, the quantifier flavor of the morpheme still features the expressive component, despite having undergone a change at the truth-conditional level.

3.2. Quantificational *gran*

In a colloquial variety spoken in the Emilia region (roughly from around the city of Bologna to the Lombardia border), *gran* has developed a quantificational usage with meaning similar to *a lot*, *many*, and with the same expressive component as the adjectival version.

(18)   Marco mangiò delle **gran** pizze lo   scorso mese'.
       Marco ate   some *gran* pizzas last month.
       Truth-Conditional: Marco ate **many** pizzas last month.
       Expressive: The speaker is excited about such **quantity** of pizzas.

Note that adjectival and quantificational *gran* have entirely independent, though originally related, meanings. For a speaker that has both uses in her dialect, it is perfectly possible to get the quantificational reading while denying the adjectival one, as the example below shows.

(19)   Marco mangiò delle **gran** pizze lo scorso mese, ✓ ma non erano nulla di che.
       'Marco ate some *gran* pizzas last month, ✓ but they were nothing special.'

A further important observation is that quantificational *gran* is syntactically restricted to be within the scope of quantificational determiners *dei/delle* ($\approx$ 'some' in English). It cannot be licensed by definite determiners or in other environments. In light of this syntactic behavior and of the semantic connection between high quality and high quantity, a full synchronic analysis of this use of the morpheme would certainly be interesting from both a semantic and a syntactic perspective. However, given the scope of the current paper, we leave that for future research, and focus instead on the relationship between the truth-conditional and the expressive part. The crucial observation, in light of our broad questions, is that the expressive component of quantificational *gran* is also separate from the truth-conditional content, as it was the case for the adjectival version. The diagnostics discussed so far support this point.

(20) a. Marco mangiò delle **gran** pizze lo scorso mese.   INDEPENDENCE
          Marco ate   some *gran* pizzas the last   month

      b. No!{#Mangiò molte pizze, ma non provo nulla/✓Mangio' poche pizze }
          No!{#He ate many pizzas, but I don't feel anything/✓He ate few pizzas}

(21) a. Marco mangiò delle **gran**   pizze lo   scorso mese.   N-DIS
          Marco ate   many pizzas the   last month
          ✓ I'm being emotional *now* (despite past tense)

      b. **Not**: I was being emotional *then*.

(22) a. ✓ Marco sostiene di aver mangiato delle **gran** pizze, ma per me erano poche. N-EMB
          Marco says that he ate some *gran* pizzas, but I think they were few.

      b. # Marco sostiene di aver mangiato delle **gran** pizze, ma a me non interessa.
          Marco says that he ate some *gran* pizzas, but **I** don't feel anything about it.

(23) a. ✓Marco mangiò delle **gran** pizze lo scorso mese.   BAN IN PRED
          Marco ate many pizzas the last month

      b. *Marco mangiò delle pizze **gran** lo scorso mese.

      c. *Le pizze sono **gran**.
          The pizzas are many.

3.3. From mixed-predication to mixed-quantification

Unfortunately, because quantificational *gran* is mostly used in oral varieties of Italian, no corpus data is available to track its trajectory in a fine-grained manner. Yet, there is at least plausible evidence to assume that quantificational and adjectival usage are diachronically related. First, quantificational usage is only common in a region, while adjectival one is spread throughout the country. Second, speakers outside the Emilia region have a hard time getting the quantificational reading. This suggests that this particular meaning of the expression has fully grammaticalized in a particular variety, and is simply not available to speakers of different dialects. As such, it

counts as a full-fledged instantiation of semantic change, and not as the output of an "on the spot" cross-domain inference from qualities to quantities. We summarize the change in the following way. [3]

(24) **Truth-conditional meaning**: CHANGED. From individuals to cardinalities.
      $\text{OUTSTANDING}(x) \rightarrow |x| > n$

(25) **Expressive meaning**: PRESERVED. The excitement component survives.
      $excited_{speaker}(x) \rightarrow excited_{speaker}(|x|)$

For the purpose of the current paper, the crucial observation is that, while the truth-conditional component of *gran* undergoes a shift, the expressive part survives through the change. This trajectory stands out with respect to the generalizations provided by subjectification and Jespersen's cycle models, which both posit mixed expressivity as a transitory stage along the emergence of purely expressive or functional meaning. The trajectory is summarized below, where *u* denotes an *expressive type* (see Gutzmann 2011, 2012) and *e,t* are regular descriptive types.

(26) Diachronic trajectory of *gran*

'big':   'outstanding' + expressive: 'many' + expressive:
$[\![grande \ \langle e, t \rangle]\!]$ $\Rightarrow$ $[\![gran \ \langle e, t \rangle \bullet \langle e, u \rangle]\!]$ $\Rightarrow$ $[\![gran \ \langle et, t \rangle \bullet \langle et, u \rangle]\!]$

4. Cantonese *gwai2*

The second case study is concerned with the word *gwai2* in Cantonese, which literally means "ghost". In this paper, the focus is the non-literal usage of *gwai2*. Yet, its literal meaning is relevant to the emergence of its non-literal meaning of interest here, as we shall see below.

In its non-literal and productive usage, *gwai2* is invariably an expressive of some sort, in the sense that has been discussed throughout this paper; its expressive meaning can be paraphrased as "goddamn" in English. There are two types of *gwai2* as an expressive, and their distribution appears to be correlated with factors such as morphophonology: when *gwai2* is an infix, it is a *pure* expressive with no truth-conditional semantic contribution (cf. *bastard, damn* discussed in Section 1), but when it is not infixal, it is a *mixed* expressive with both at-issue and expressive meaning (cf. Italian *gran* in the previous section). While a comprehensive analysis of *gwai2* is beyond the scope of the present paper (Lee 2014), the descriptive facts of interest pertaining to *gwai2* have been well documented (Yip and Matthews 2001: 157-160, Lee and Chin 2007, Yu 2007: 134-135, and Matthews and Yip 2011: 52-54, 184).

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[3]Note that, while we give a denotation of *gran* in terms of a cardinality predicate (Solt 2009), other formalizations of quantifiers would be equally consistent with our account.

We focus on *gwai2* as a mixed expressive. Crucially, there are two distinct flavors, both of which simultaneously provide a truth-conditional and an expressive contribution. As we argue below, the two versions are diachronically related, which demonstrates our central thesis that mixed expressivity is not necessarily a diachronically unstable category.

4.1. *Gwai2* = 'nobody' + expressive

The first version of *gwai2* as a mixed expressive is the one that can be thought of as meaning 'nobody' plus expressive meaning, i.e., *gwai2* carries the truth-conditional meaning as a negative quantifier (= *nobody*) as well as the expressive meaning that the speaker is in a 'heigthened emotional state' (Potts 2007).

(27) **Gwai2** ho2ji5 loeng5 lin4 duk6 jyun4 bok3si6.
       GHOST can   two   year study finish PhD
       'No goddamn person can get a PhD in two years.'

(28) **Gwai2** sik1
       GHOST know
       'Nobody knows shit.' / 'God knows.' (cf. "vulgar minimizers" like *shit*, Postal (2002))

To show that *gwai2* is a mixed expressive, diagnostic tests are run as follows. Akin to the discussion on Italian *gran* above, these tests tap into (i) the co-existence of both truth-conditional meaning and expressivity, and (ii) the specific properties of expressivity.

First, the independence test shows truth-conditional meaning and expressive meaning are separate. Third-party objection to (28) can deny the truth-conditional content but not the expressive meaning.

(29) a. ✓ M4hai6, kei4sat6 ngo5 sik1
          No   actually I   know
          'No, I know actually.'
      b. # Lei5 m4 lau1
          you not mad
          'You're not mad.'

Second, non-displaceability shows that expressivity is anchored to the time of utterance, regardless of temporal displacement by tense or other grammatical/lexical means.

(30)   a. **Gwai2** wui5 ting1jat6 heoi3
          GHOST will   tomorrow go
          'No goddamn person will go tomorrow.'
          ✓I'm being emotional *now* (despite future reference).
          # I will be emotional *tomorrow*.

Third, mid-utterance perspective shifts are disallowed for expressivity, but entirely possible for truth-conditional meaning.

(31)   a. ✓ Keoi5 waa6 **gwai2** sin1 zi1,   daan6hai6 ngo5 kok3dak1 kei4sat6 keoi5 zi1
          s/he   say   GHOST only know but   I   think   actually s/he know
          'She wonders who the hell would know, but I think she actually does.'
       b. # Keoi5 waa6 **gwai2** sin1 zi1,   daan6hai6 ngo5 m4 gik1dung6
          s/he   say   GHOST only know but   I   not emotional
          'She wonders who the hell would know, but I am not mad.'

Finally, specifically to the Cantonese data, a negation test shows that the default sentential negator in Cantonese *m4* 'not' interacts with the truth-conditional meaning of *gwai2* only and flips the polarity (leading to logical double negation) while the expressive meaning remains.

(32)   **Gwai2 m4** sik1
       GHOST not know
       'Every goddamn person knows.'
       (It cannot mean 'No goddamn person knows', cf. (28).)

This test also demonstrates that expressixity takes the widest scope. Furthermore, as an example of logical double negation, this example shows the general property of natural language that there is some extra meaning (expressivity, in this example) that comes in addition to what appears to be purely logical cancellation of two negating operations at the truth-conditional level (cf. English *not un-X*, Horn 1991).

We now move on to the second version of *gwai2* as a mixed expressive, which is closely connected to the first one just discussed here.

4.2. *Gwai2* = 'not' + expressive

Synchronically, *gwai2* as a mixed expressive has a version different from but related to the negative quantifier usage discussed in the previous section. More concretely, this second version is a

sentential negator and, similar to the first version, carries expressivity.

(33)   a.   Keoi5 **gwai2** ho2ji5 loeng5 lin4 duk6 jyun4 bok3si6.
            s/he   GHOST can   two   year study finish PhD

            'He can't goddamn get a PhD in two years.'

     b.   Compare (without *gwai2*):

            Keoi5 ho2ji5 loeng5 lin4 duk6 jyun4 bok3si6.
            s/he   can   two   year study finish PhD

            'He can get a PhD in two years.'

(34)   Keoi5 **gwai2**   sik1
       s/he   GHOST know

       'He doesn't goddamn know.'

For consistency, the exact same diagnostic tests as in section 4.1 above can be run for this version of *gwai2* to establish its mixed expressivity:

(35)   **Independence:** At-issue meaning, but not the expressive component, can be questioned.

     a.   Keoi5 **gwai2**   sik1
         s/he   GHOST know

         'He doesn't goddamn know.'

     b.   i.   ✓ M4hai6 – kei4sat6 keoi5 sik1

              No – actually he knows. (Challenging the truth-conditional content)

         ii.   # Lei5 m4 lau1

              You're not mad. (Unable to deny expressivity)

(36)   **Non-displaceability:** Expressivity has a here-and-now reference only and cannot be shifted.

     Keoi5 **gwai2**   wui5 ting1jat6   heoi3
     s/he   GHOST will   tomorrow go

     'He won't goddamn go tomorrow.'
     ✓ I'm being emotional *now* (despite future reference).
     # I will be emotional *tomorrow*.

(37)   **Mid-utterance perspective shift:** Impossible for expressive meaning

    a. ✓ Keoi5 waa6 keoi5dei6 **gwai2** sin1 zi1,   daan6hai6 ngo5 kok3dak1 kei4sat6
          s/he say they   GHOST only know but   I   think   actually
          keoi5dei6 zi1
          they   know

          'She wonders how on earth they would know, but I think they actually do.'

    b. # Keoi5 waa6 keoi5dei6 **gwai2** sin1 zi1,   daan6hai6 ngo5 m4 gik1dung6
          s/he say they   GHOST only know but   I   not emotional

          'She wonders how on earth they would know, but I am not mad.'

(38) **Negation:** Expressivity remains unaltered despite interaction of at-issue meaning

Keoi5 **gwai2** **m4** sik1
s/he   GHOST not know

'He goddamn knows.'

In the following, we discuss the connection of the two versions of *gwai2*, particularly in terms of the broader questions on the emergence and persistence of mixed expressivity.

4.3. The emergence and persistence of mixed expressivity of *gwai2*

The data with Cantonese *gwai2* offers an interesting case study with regard to the recent growing interest in mixed expressives, because *gwai2* has left clear traces in its diachronic development, thereby shedding a good deal of light on the hitherto poorly understood aspects about the diachrony of mixed expressivity. In this section, we address the emergence and persistence of mixed expressives, as evidenced by Cantonese *gwai2*. We argue that *gwai2* started out with its literal meaning of "ghost", became interpreted as a negative quantifier by way of pragmatic reasoning, and subsequently acquired the usage of sentential negation through reanalysis. Throughout this diachronic development, expressivity has remained an integral component of the grammar of *gwai2*.

First, with respect to the *emergence* of mixed expressives, an important question is how a mixed expressive comes into being in the first place. Or, as introduced in section 2, how does expressivity and truth-conditional meaning end up co-existing at the same lexical item? Cantonese *gwai2* provides an answer to just this question.

(39) Gwai2 sik1
      GHOST know
      Literal: 'Ghosts know.'
      Idiomatic: 'No goddamn person knows'.

In (39), the utterance can be literally understood as if it were a canonical subject-predicate sentence, i.e., "ghosts know". But this is not the most common reading: in most communicative contexts, in fact, the literal "ghost" is hardly relevant. What must have given rise to the non-literal interpretation is a pragmatic reason. Specifically, implicatures are at work here. "Ghost" implicates "no human beings" (= nobody), by virtue of shared knowledge that ghosts do not exist, as well as the Maxim of Relation (Grice 1975) that the utterance of "ghosts know" has to contextually make sense. As for its expressive dimension, *gwai2* in all its non-literal usage in Cantonese—productive or otherwise, and beyond mixed expressives—has a strong flavor of expressiveness (= *goddamn*). Intuitively, one could compare *gwai2* with English *God* (as in *God knows*) in a similar fashion.

The other central question to address in this paper is concerned with the *persistence* of mixed expressives. Section 2 describes current approaches relevant to expressivity, all of which converge on the prediction that mixed expressives are diachronically unstable, and either the expressivity or truth-conditional content will be lost subsequently. Similar to Italian *gran* discussed above, Cantonese *gwai2* is a case that suggests the possibility that a mixed expressive may undergo diachronic changes for its truth-conditional meaning with its expressive meaning intact. The approach taken here is that we show the mixed expressive of interest did undergo diachronic changes, but instead of turning into a pure expressive or a non-expressive lexical item, it has become another mixed expressive with distinct at-issue meaning.

For Cantonese *gwai2*, our analysis is that the version which means "not" plus expressive meaning (section 4.2) is diachronically derived from the reanalysis of the one which means "nobody" plus expressivity (section 4.1). The details of the reanalysis are as follows.

First, an utterance with *gwai2* meaning "nobody" was reanalyzed as having a null subject. This possibility is supported by the fact that Cantonese, like other Chinese languages, very often allows utterances with no overt but contextually understood topics, subjects, or other arguments (cf. *pro drop* in Romance languages). As background for null subjects in Cantonese, below is an example with the default negator *m4*.

(40)   a.   M4 zi1.
            not know
            '[Someone contextually known or salient] doesn't know.' (null subject)
       b.   Keoi5 m4 zi1.
            s/he   not know
            'She doesn't know.' ("she" as the overt subject)

Replacing *m4* in (40a) with *gwai2* leads to the first version of *gwai2* as a mixed expressive which means "nobody" plus expressivity, as in (41a) below. In section 4.1 on this usage of *gwai2*, the discussion was abstracted away from the context. In a canonical situation, *gwai2* here means "nobody" truth-conditionally, as has been discussed. But if there are strong contextual cues for a

specific subject or topic, then the utterance in (41a) can be interpreted as one with a null argument in the same vein as (40a). This encourages a reanalysis of the precise truth-conditional meaning of *gwai2* from 'nobody' to a sentential negator 'not', which can be further reinforced by filling in the null argument, as in (41b).

(41)   a. **Gwai2** zi1.
            GHOST know
            1. 'No goddamn person knows.' (Context not pointing to anyone specific)
            2. '[Someone] doesn't goddamn know.' (Context pointing to a particular subject)
        b. Keoi5 **gwai2** zi1.
            s/he   GHOST know
            'She doesn't goddamn know.' ("she" as the overt subject)

Bringing together the two versions of *gwai2* as a mixed expressive, our analysis is that *gwai2* as a negator quantifier became a sentential negator, while expressivity has always remained throughout the diachronic development. As supporting evidence for this story, corpus data from early and mid 20th century colloquial Cantonese (Chin 2013) displays wide attestation of *gwai2* used in the sense of "nobody" but no instances at all for the usage as a sentential negator. This suggests that *gwai2* as "not" did not emerge until quite recently.

The diachronic trajectory of *gwai2* is summarized as follows:

(42)   'ghost':   'nobody' + expressive: 'not' + expressive:
        $[\![gwai2 \langle e, t \rangle]\!]$ $\Rightarrow$ $[\![gwai2 \langle et, t \rangle \bullet \langle t, u \rangle]\!]$ $\Rightarrow$ $[\![gwai2 \langle t, t \rangle \bullet \langle t, u \rangle]\!]$

Before the discussion on Cantonese *gwai2* ends, we remark briefly on two questions. First, if one of our major claims is that mixed expressives are not necessarily diachronically volatile, how can we be certain that Cantonese *gwai2*, for instance, will maintain its mixed expressivity, given that there have only been two attested stages as discussed? In other words, would it be possible for *gwai2* to lose either its truth-conditional meaning or its expressive component? While this is logically possible, it is empirically unlikely. Expressivity as part of the meaning of *gwai2* is a general property for all non-literal uses of *gwai2* and is far from being confined to the two versions of mixed expressives, which makes it hard to fade away without drastic changes unimaginable at this point. It is also unclear how the truth-conditional component for negation might be diachronically altered or even removed without any synchronic potential triggers.

The second question is how the case of Cantonese *gwai2* differs from those following Jespersen's cycle, given that *gwai2* intuitively has a great deal to do with negation and with the interaction between emphatic and plain types of semantic contribution. It is instructive to consider French *pas* 'step' as a point of comparison. Eckardt (2006) sheds new light on this classic case of negation

emergence and, crucially, argues that there is emphatic focus in negative polarity contexts, thereby accounting for the "puzzling usages" (neither literal meaning nor part of a negation). Contrary to French *pas*, Cantonese *gwai2* can be perfectly used in positive polarity utterances (*ghosts know* = "No goddamn person knows"; *ghosts don't know'* = "Every goddamn person knows"). This is related to the fact that the emergence of French *pas* for negation is by *quantity*-based reasoning (cf. other minimizer-type negators) while Cantonese *gwai2* negation is more of the quality type, where the world knowledge about the (non-)existence of ghosts underlies the development of a negative meaning. This, in turn, is connected to the difference that French *pas* has emphasis tightly connected to other levels of semantic content (truth conditions, scalar reasoning, etc.), whereas Cantonese *gwai2* has its truth-conditional content independent of its expressive component.

5. Conclusions and implications

This paper has presented two novel cases of mixed expressives: Italian *gran* 'big' and Cantonese *gwai2* 'ghost'. Both mixed expressives have recently undergone a shift in truth-conditional meaning, while maintaining expressivity. Several implications follow. First, mixed expressivity need not represent just a transitional stage of semantic change, but can be a stable category, capable of persisting through semantic shifts. Second, our data show that expressive meaning and at-issue meaning diachronically proceed in a parallel fashion, interacting very little in the process. Such diachronic independence provides empirical support to current synchronic models of mixed expressivity (McCready 2010; Gutzmann 2012), which assign separate semantic representations to expressive and descriptive meaning. Our data also provide key insights into the poorly understood questions regarding the diachrony and interaction of truth-conditional and expressive meaning. Further work includes a more detailed characterization of expressive or emphatic content as well as the synchronic nature of the expressive computation. In particular, the observation that in our case studies expressivity appears to operate on the output of the truth-conditional one, and not on an independent input, appears to question the separation between the two components and calls for further scholarly attention.

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