On iconicity, at-issueness, and composition in pictures[*]
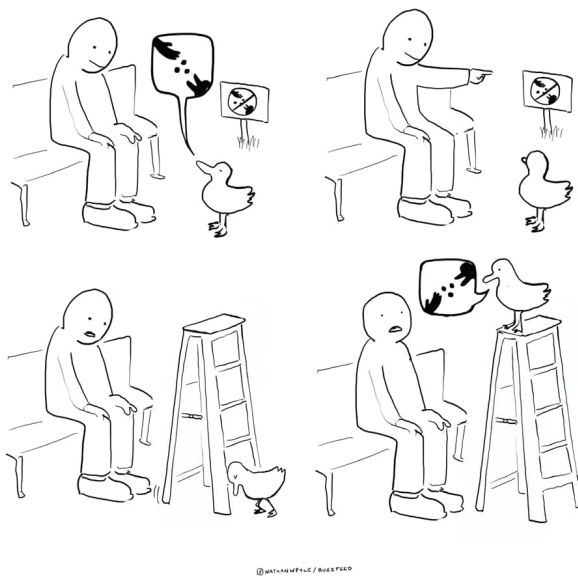
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1. Intro

- Why is the comic in (1) funny?

(1) [1]

- Other things the duck could've asked the human to do: toss four food morsels, toss them one by one, put them on the ground, etc.

- General intuition: mismatch between the intent of the prohibition sign and the iconic and at-issue interpretation of its pictorial aspects that are not meant to be such.

In this talk I will:

(i) distinguish between (a) non-iconic and (b) iconic, but not-at-issue aspects of pictorial representations;

(ii) show that which aspects of pictorial representations are (non-)iconic and (not-)at-issue is determined pragmatically;

(iii) argue that iconic, but not-at-issue aspects of pictorial representations are akin to non-restricting modifiers in language (cf. sublexical presuppositions), based on data from ellipsis/anaphora resolution and alternative generation under *only*.

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2. (Non-)iconicity and (not-)at-issueness in prohibition signs

2.1. Not-at-issue or non-iconic?

- Why prohibition signs? They involve embedding under negation, $\approx$*No X!*[2] This allows easy testing for at-issueness.

- Two ways in which an aspect of a pictorial representation can fail to be at-issue:

  – It's non-iconic. E.g., the number and arrangement of food morsels in (1) is not meant to be interpreted (hyper-)iconically in the first place (a pre-requisite for being at-issue); 3 is often a default number to visually represent pluralities (cf. Schlenker & Lamberton 2019 on plurals in sign). Also, stylization conventions (Greenberg 2019).

  – But the directionality of tossing in (1) is iconic (prototypical duck-feeding events do involve food-tossing from above), but not-at-issue (all duck-feeding events are forbidden).

2.2. The role of pragmatics

- Iconic, but not-at-issue aspects of pictorial representations resemble *non-restricting modifiers* (NRMs) in language, i.e., instances of modifiers that are truth-conditionally vacuous in a given context, as defined in Esipova 2019a (see also Leffel 2014 for an earlier discussion of NRMs).[3]

- Whether a given instance of a modifier is intended as non-restricting or *restricting* (picking out a potentially smaller subpart of the denotation of the expression it modifies and, thus, truth-conditionally non-vacuous) is determined by pragmatic factors, e.g., extra-linguistic context and world knowledge:

(2)   a.   *Context: The speaker believes that processed meat causes cancer.*
             I shouldn't be eating so many deadly hot-dogs.
             = I shouldn't be eating so many hot-dogs.   (truth-conditional vacuity)
             $\rightarrow$ All hot-dogs are deadly.   (NRM inference)
       b.   *Context: The speaker runs a chemistry lab and is talking to her assistant.*
             All deadly substances are stored in this cabinet.
             $\neq$ All substances are stored in this cabinet.   (truth-conditional non-vacuity)
             $\nrightarrow$ All substances are deadly.   (no NRM inference)

- The same is true for directionality in signs; e.g., in the signs in (3), the directionality is obviously restricting:

(3)   a.   [4]

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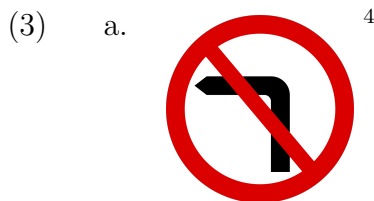
[2]Or a negative deontic modal, akin to Russian *nel'zja* 'not-allowed'.

[3]Cf. "cosuppositions" posited in Schlenker 2018a,b, which I argue in Esipova 2019a to be NRM inferences in disguise.

$\neq$ No turn!

$\not\rightarrow$ All turns are leftward.

b.

$\neq$ No way out!

$\not\rightarrow$ All ways out are {leftward, rightward}.

- Pragmatics also matters for determining how iconic a given aspect of a pictorial representation is meant to be; e.g., (4) prohibits crowding, but (5) doesn't prohibit overfeeding wildlife, nor does it seem to indicate a prototypical amount of food usually fed to birds:

(4)

(5)

2.3. The role of explicit alternatives

- Explicit permitted alternatives also help disambiguating between restricting vs. non-restricting readings of pictorial content:

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[4]`https://commons.wikimedia.org/wiki/File:Road_Sign_No_Left_Turn.jpg`

(6)

(7)

- And a bonus—topical—example to make the same point:

(8)

2.4. Optionality and licensing of pictorial NRMs

- Pictorial NRMs can be optional:

(9)

- However, the more complex representations of pluralities in (6)–(8) are justified, as they explain the rationale behind the rules—cf. relevance considerations for NRMs in language (e.g., Leffel 2014).

- But not all NRMs obey relevance constraints, e.g., if they are morphosyntactically obligatory (*phi*-features on pronouns? directionality in (1)?) or "cheap" from the production perspective.

3. Semantic composition or sublexical meaning?

- Why treat such aspects of pictorial representations as directionality of events or mereological properties of pluralities as modifiers, i.e., compositionally integrated pieces of meaning? Why not sublexical pieces of holistic pictorial items that sometimes act like presuppositions?

- One argument for the compositional treatment comes from how these pieces of meaning behave for the purposes of anaphora and ellipsis resolution as well as alternative generation.

- As observed in Esipova 2019a and expanded upon in Sailor & Colasanti 2020, modifiers, spoken and gestural, can be ignored under ellipsis and *only* when they are non-restricting and, thus, not-at-issue; the same is true for *same*-anaphora resolution:[7]

(10)   *Context: Lea has only one dog.*
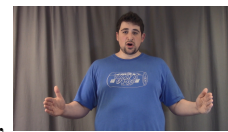
     a.   A: Lea won't be bringing {her enormous dog, her dog$_{\text{LARGE}}$} to the party, as one of the guests is allergic.

             B: Ah, OK, then I won't [ ] either. Even though mine is a York, and those are sometimes claimed to be hypoallergenic, but better safe than sorry.

             $\nrightarrow$ B's dog is large.   (variation of Sailor & Colasanti 2020, (15a))

     b.   Well, if Lea's gonna bring {her enormous dog, her dog$_{\text{LARGE}}$} to the party, then I'll do the same. Especially because mine is tiny.

             $\nrightarrow$ The speaker's dog is large.

     c.   Only Lea brought {her enormous dog, her dog$_{\text{LARGE}}$} to the party. No one else

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[7]I write gesture labels in ALL CAPS. Co-speech gestures are written as subscripts, with underlining indicating their approximate temporal alignment without making any syntactic claims. New gestures are accompanied with illustrations, placed at their approximate onset.

did. Not even Mia, who has a tiny, innocuous chihuahua.
$\not\to$ Every other relevant person's dog is large.

- Restricting modifiers cannot be ignored in these environments:

(11)   *Context: Lea has two dogs, a small one and a large one.*
    a.   A: Lea won't be bringing {her **enormous** dog, her **dog**$_{\text{LARGE}}$}.
        B: Ah, OK, then I won't [ ] either. #Even though mine is a York.
            = I won't be bringing my large dog.
    b.   Well, if Lea's gonna bring {her **enormous** dog, her **dog**$_{\text{LARGE}}$} to the party, then I'll do the same. #Especially because mine is tiny.
        = I'll bring my large dog.
    c.   Only Lea brought {her **enormous** dog, her **dog**$_{\text{LARGE}}$} to the party. No one else did. #Not even Mia, who has a tiny, innocuous chihuahua.
        $\to$ No one else brought their large dog.

- The paradigm in (10) is in contrast to sublexical presuppositions, i.e., presuppositions arising as part of the lexical meaning of certain words, which cannot be ignored in such environments:

(12)   a.   Jackie stopped smoking, {but Daisy didn't, and Daisy did the same}.
        $\to$ Daisy used to smoke.
    b.   Out of these three women, only Jackie stopped smoking.
        $\to$ Each of these three women used to smoke.
    c.   O-Ren knows that she is in danger, {but Vernita doesn't, and the same is true for Vernita}.
        $\to$ Vernita is in danger. (under the sloppy reading)
    d.   Out of these three women only O-Ren knows that she is in danger.
        $\to$ Each of these three women is in danger. (under the sloppy reading)
    e.   Kim regrets cheating on the exam, {but Abernathy doesn't, and the same is true for Abernathy}.
        $\to$ Abernathy cheated on the exam.
    f.   Out of these three women only Kim regrets cheating on the exam.
        $\to$ Each of these three women cheated on the exam.
                                    (Esipova 2019a, (7.4), adjusted)

- Directionality in signs patterns with modifiers:[8]

(13)   *Context: In a zoo, the coyote enclosure has the following sign:*[9]

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[8]I use gapping data from Russian here, because Russian allows more gapping possibilities than English.

The speaker nods at this sign and says:

a. Žirafov   tože nel'zja   [ ].
   giraffe.PL.ACC too not-allowed
   'One can't [feed] giraffes either.'   (Russian)

b. A   žirafov   možno [ ].
   and/but giraffe.PL.ACC allowed
   'But one can [feed] giraffes.'   (Russian)

c. The same applies to giraffes.

d. This only applies to coyotes.

(a–d): ↛ {Giraffes, all other relevant animals} are typically fed from above.

(14)   *Context: The speaker nods at the sign in (3a) and says:*

a. Na sledujuŝem perekrëstke tože nel'zja   [ ].
   on next   intersection too not-allowed
   'One can't [turn left] at the next intersection either.'   (Russian)

b. A   na sledujuŝem perekrëstke možno [ ].
   and/but on next   intersection allowed
   'But one can [turn left] at the next intersection.'   (Russian)

c. The same applies at the next intersection.
   = Turning left is prohibited at the next intersection.
   ≠ Turning is prohibited at the next intersection.

d. This only applies at this intersection.
   → It's not the case that turning left is prohibited at all other relevant intersections.
   ↛ It's not the case that turning is prohibited at all other relevant intersections.

- Schlenker & Chemla (2018): directional properties of hand gestures can be ignored under ellipsis and *only* (when they are not-at-issue), in a way reminiscent of *phi*-features on pronouns and unlike other inferences that have been labeled "presuppositions"; they do not attribute this contrast to the distinction between compositional and sublexical meaning:[10]

(15)   *Context: Zoe and Skyler are practicing face punches with sparring partners.*
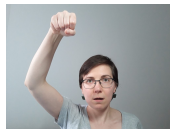
a. Zoe$_i$ [image] punched$_\text{PUNCH-HIGH}$ her$_i$ sparring partner, {but Skyler didn't, and Skyler did the same}.

b. Only Zoe$_i$ punched$_\text{PUNCH-HIGH}$ her$_i$ sparring partner.

(a,b):
→ Zoe's sparring partner is taller than Zoe.[11]
→ Zoe is female.

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[9]https://www.flickr.com/photos/adactio/2156791720/
  The original sign also contains the text *Do not feed the coyotes*, and one of the comments under the picture says: 'Sign was cut off – "Do not feed the coyotes chocolate chip biscuits, they like honey snaps."'
  [10]Schlenker & Chemla focus on non-co-speech gestures, but this difference is irrelevant for the issue at hand.

$\nrightarrow$ Skyler's sparring partner is taller than Skyler.

$\nrightarrow$ Skyler is female.   (Esipova 2019a, (7.2), adjusted)

- Both directional properties of gestures and *phi*-features on pronouns are analyzed as modifiers in Esipova 2019a and are, thus, expected to pattern with other modifiers in ellipsis/anaphora resolution and under *only*.

- If compositional independence is indeed a prerequisite for being able to be ignored in such environments, we can conclude that interpreting pictorial content involves a syntactic level of representation that feeds semantic composition, and directionality in pictorial representations of events can be compositionally independent at that level of representation.

4. Outro

- Summary:

  - Re iconicity: some aspects of pictorial representations are not meant to be interpreted (hyper-)iconically. Whether they are is determined pragmatically.

  - Re at-issueness: some aspects of pictorial representations that are iconic can, nonetheless, be not-at-issue. Whether they are is determined pragmatically.

  - Re composition: data from ellipsis/anaphora resolution and alternative generation under *only* suggest that such aspects of pictorial representations contribute meaning in a compositional way (at least in the cases discussed here). Therefore, the at-issue vs. not-at-issue distinction for these components of pictorial meaning is best captured via the notions of restricting vs. non-restricting modification (following similar ideas for various "secondary modality" content in spoken language in Esipova 2019a,b).

- Methodological take-aways:

  - Prohibition signs have proved useful in getting at the at-issue vs. not-at-issue distinction in pictures without creating speech-picture hybrids (cf. Schlenker 2019), as they (i) involve embedding under negation, and (ii) usually have very transparent pragmatics.

  - Ellipsis/anaphora resolution and alternative generation under *only* have once again yielded empirical distinctions that could be used to test for semantic composition in and beyond language. But we need to understand the relationship between these phenomena and composition better before drawing definitive conclusions.

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[11]Or more precisely, Zoe's sparring partner's face is higher that Zoe's.

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