

INSTRUMENT NAMES, BARE SINGULARS, AND EVENT KINDS

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Main claims

- Bare singular NPs in English that refer to musical instruments are mass terms for kinds of events. Thus *piano* has a reading that refers to an event of playing piano music.
- They give rise to adverbial readings of adjectives that are unavailable to their definite counterparts. These readings depend on an eventive light-verb counterpart to *play*.
- They might also be a window on e.g. *She cuts good hair*: and its counterparts across languages.

The facts

Reference to kinds Bare singular instrument names can refer to kinds, as definite descriptions can:

- (1) a. Piano emerged in the 18th century.
b. The piano was invented in the 18th century.

In this, they resemble weak definites (Barker (2005), Carlson et al. (2006), Schwarz (2014), Aguilar Guevara & Zwarts (2011) a.o.).

Event kinds Bare singular instrument NPs denote kinds of events of playing an instrument. As a result, they allow only modification that yields another playing event kind. Thus *jazz trumpet* is not a type of instrument, but a style of trumpet playing.

- (2) a. (The) {bass trumpet | electric guitar} {emerged from a surprising source | is widespread}.
- b. (#The) {jazz trumpet | country guitar} {emerged from a surprising source | is widespread}.

Light-verb play Instrument bare singulars and definite descriptions can maintain their kind interpretation with the verb *play*, but definites require an instrument-kind reading, not a playing-kind reading:

- (3) a. Floyd plays (#the) {jazz trumpet | country guitar}.
- b. Floyd plays the {bass trumpet | electric guitar}.

Adverbial readings of adjectives Instrument bare singulars allow kind reference under various types of modification, while weak definites resist it:

- (4) a. Clyde plays (#the) {good | excellent | lousy} piano. (judge-sensitive)
- b. Bertha plays (#the) {occasional | frequent} piano. (temporal)

Background

Derived Kind Predication We will rely on the compositional rule of Derived Kind Predication (Chierchia 1998), which allows predicates of objects to combine with kinds:

- (5) DERIVED KIND PREDICATION (Crosscategorical Variant)
 $P(k) = \exists o[\cup k(o) \wedge P(o)]$ where k is a kind; o an object; P a property

Ordinary play with kind-denoting definites In *play* constructions involving definite descriptions, we follow Aguilar Guevara & Zwarts (2011) in assuming that *play* takes an object as its argument, but combines with a kind-denoting definite via DKP:

Background continued

- (6) a. $\llbracket \text{the piano} \rrbracket = \text{PIANO-KIND}$
- b. $\llbracket \text{play}_{\text{object}} \rrbracket = \lambda x^o \lambda e . \text{play}(e) \wedge \text{theme}(e, x^o)$
- c. $\llbracket \text{play}_{\text{object}} \text{ the piano} \rrbracket = \llbracket \text{play}_{\text{object}} \rrbracket (\llbracket \text{the piano} \rrbracket)$
 $= \lambda e . \exists x^o [\cup \llbracket \text{the piano} \rrbracket (x^o) \wedge \llbracket \text{play}_{\text{object}} \rrbracket (x^o)(e)]$ (by DKP)
 $= \lambda e . \exists x^o [\cup \text{PIANO-KIND}(x^o) \wedge \text{play}(e) \wedge \text{theme}(e, x^o)]$

Event kinds Event kinds have been used in the analysis of weak definites (Schwarz 2014) and of adverbial readings of adjectives like *occasional* (Gehrke & McNally 2015). They seem to be empirically indispensable for instrument bare singulars, and will be crucial in our analysis of adverbial readings of adjectives.

Analysis

Instrument bare singulars Bare singular instrument NPs refer to the event-kind of producing music with an instrument. Suppose a future post-Apocalyptic society rediscovers electric guitars but no one knows how to play them. This could truthfully be described with the weak definite *the electric guitar*, but not with the corresponding bare singular:

- (7) a. *True*: The electric guitar reemerged in 2080.
- b. *False*: Electric guitar reemerged in 2080.

This demonstrates that instrument bare singulars refer not to instrument kinds, but to *event kinds* of playing an instrument. They are mass terms:

- (8) a. too {much | *many} piano
- b. a piece of {piano music | *piano}

We propose this reading is achieved via a null Num head EVENT. It's incompatible with number morphology because it occupies the Num head itself. It's also incompatible with overt determiners for type reasons—it yields a kind rather than a property, which is not what a determiner expects.

- (9) a. Excellent piano emerged from the orchestra. (eventive)
- b. The excellent piano emerged from the orchestra. (not eventive)
- c. Excellent drums emerged from the orchestra. (not eventive)

- (10) a. $\llbracket \text{EVENT} \rrbracket = \lambda P_{(e,t)} . \cap [\lambda e . \exists x^o [e \text{ is an event of playing } x^o \wedge P(x^o)]]$
- b. $\llbracket [_{\text{Num}} \text{EVENT}] \rrbracket (\llbracket [_{\text{NP}} \text{piano}] \rrbracket) = \text{PIANO-PLAYING-KIND}$

Harley (2008) and Kiparsky (1997) suggest bare singulars can invoke events canonically associated with the head noun. Our EVENT might be similar to this, but e.g. *sandwich* can't refer to sandwich-eating event kinds.

Eventive play We suggest that with event-denoting DPs, a light verb counterpart of *play* is used that adds only the presupposition that the DP denotes a performance:

- (11) Clyde will play_{eventive} the gig.
a. $\llbracket \text{play}_{\text{eventive}} \rrbracket = \lambda e : \text{performance}(e) . \lambda e' [e = e']$
- b. $\llbracket \text{the gig} \rrbracket = \iota e [\text{gig}(e)]$
- c. $\llbracket \text{play}_{\text{eventive}} \text{ the gig} \rrbracket = \lambda e' [\iota e [\text{gig}(e)] = e']$

Bare singular instrument nouns denote kinds of events, and therefore combine with *play_{eventive}* via DKP:

Analysis continued

- (12) $\llbracket \text{play}_{\text{eventive}} \rrbracket (\llbracket [_{\text{DP}} \text{EVENT piano}] \rrbracket)$
 $= \lambda e . \exists e' [\cup \llbracket [_{\text{DP}} \text{EVENT piano}] \rrbracket (e') \wedge \llbracket \text{play}_{\text{eventive}} \rrbracket (e')(e)]$ (by DKP)
 $= \lambda e . \exists e' [\cup \text{PIANO-PLAYING-KIND}(e') \wedge e = e']$
 $= \lambda e . \cup \text{PIANO-PLAYING-KIND}(e)$

Adverbial readings of adjectives These assumptions yield an analysis of why adjectives with instrument bare singulars get adverbial readings:

- (13) a. $\llbracket [_{\text{DP}} \text{excellent EVENT piano}] \rrbracket$
 $= \cap \left[\lambda e . \exists x^o \left[e \text{ is an event of playing } x^o \wedge \right. \right.$
 $\left. \llbracket \text{piano}(x^o) \wedge \text{excellent}(e) \rrbracket \right]$
 $= \text{EXCELLENT-PIANO-PLAYING}$
- b. $\llbracket \text{play}_{\text{eventive}} \rrbracket (\llbracket [_{\text{DP}} \text{excellent EVENT piano}] \rrbracket)$
 $= \lambda e . \exists e' [\cup \llbracket [_{\text{DP}} \text{excellent EVENT piano}] \rrbracket (e') \wedge \llbracket \text{play}_{\text{eventive}} \rrbracket (e')(e)]$ (by DKP)
 $= \lambda e . \exists e' [\cup \text{EXCELLENT-PIANO-PLAYING}(e') \wedge e = e']$
 $= \lambda e . \cup \text{EXCELLENT-PIANO-PLAYING}(e)$
 $= \lambda e . \exists x^o \left[e \text{ is an event of playing } x^o \wedge \right.$
 $\left. \llbracket \text{piano}(x^o) \wedge \text{excellent}(e) \rrbracket \right]$

Because this strategy relies on EVENT—which is incompatible with the definite determiner—it correctly predicts that adverbial readings are absent inside definite descriptions such as *play_{eventive} the excellent piano*.

Outlook: Beyond instruments

Broadly similar adverbial interpretations of adjectives also occur in structures that reference objects other than instruments:

- (14) a. Floyd cuts good hair. (Floyd is good at cutting hair.)
- b. Clyde fries a good steak. (Clyde is good at frying steak.)
- c. Bertha throws a good ball. (Bertha is good at ball-throwing.)

But the kind-level readings of these objects only arise under modification:

- (15) Clyde fries a steak. (\neq Clyde fries steak.)

Piano can denote a piano-playing event-kind, but *hair* cannot independently denote a hair-cutting event-kind:

- (16) a. There was piano in that performance. (piano = piano playing)
- b. There was hair in that cosmetics class. (hair \neq hair-cutting)

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