Starr Sandoval[1], Daniel Greeson[2], Marcin Morzycki[1], [1]University of British Columbia, [2]Stony Brook University

Instrument Names, Bare Singulars, and Event Kinds

Bare plurals and definite descriptions are the familiar tools for achieving kind reference in English. Our focus is another tool: bare singulars that characterize musical instruments. These occur as arguments of verbs like *play* and *learn*, but also in argument positions more widely. We propose that these bare singulars are mass terms for Carlsonian kinds of events. This interacts with independent properties of definite descriptions, adjectival modification, and a light-verb form of *play* to yield an intricate constellation of effects, including restrictions on adverbial readings of adjectives (Stump 1985, Larson 1999, Gehrke & McNally 2015, and many others).

Bare singular instrument nouns receive a kind reading in (1):

(1)   {Jazz trumpet | country guitar} {emerged from a surprising source | is widespread}.

It's jazz trumpet *playing* that emerged, not a particular instrument or instrument kind. There's no distinct instrument kind called a jazz trumpet. This reading is also possible with verbs like *play*, even though it is always a particular physical instrument that is played:

(2)   Bertha plays {piano | guitar | violin}.

Adjectives in this context can receive an adverbial reading under which they characterize the quality of the playing, not the quality of any particular instrument:

(3)   Bertha played {excellent | impressive | lousy} {piano | guitar | violin}.

Instrument names can also occur in definites, where they can refer to a particular instantiation of an instrument. They can also receive a kind reading, as in (4a), but they disallow modification by adjectives with an adverbial reading:

(4)   a. Bertha played the {piano | guitar | violin}.   *(can involve kind reference)*
       b. #Bertha played the {excellent | impressive | lousy} {piano | guitar | violin}.
                                        (good only in reference to a particular instrument, not a kind)

This resembles weak definites (Carlson et al 2006, Schwarz 2009, Aguilar Guevara & Zwarts 2011), where adjectival modification is similarly restricted: *go to the ({mental | #nice}) hospital*. Moreover, in these contexts, kind-modifying adjectives that characterize a style of playing rather than a kind of instrument are also impossible:

(5)   Bertha played {(the) electric guitar | (*the) country guitar}.

Crucially, unlike *electric guitar*, *country guitar* is not a particular kind of guitar. These objects also receive obligatorily narrow scope, which accords with a kind interpretation.

We assume kind reference via definite descriptions is possible only with well-established (Carlson 1977, Dayal 2004, a.o.). That's why, in the Partee example, *The Coke bottle has a long neck* is possible but not #*The green bottle has a long neck*. Following Gehrke & McNally (2015), we assume adverbial readings of adjectives can arise via event kinds. We'll also rely on a standard type-shifting rule, Derived Kind Predication (DKP, Chierchia 1984, a.o.), which combines object-level predicates with kind-referring expressions and explains their obligatorily narrow scope.

We propose a semantics for *play* verbs with simple object-denoting DPs in (6) and definite kind-referring ones in (7) (we sever the agent à la Kratzer 1996):

(6)   a. $[\![play_{object}]\!] = \lambda x^o \lambda e \,.\, \mathbf{play}(e) \wedge \mathbf{theme}(e, x^o)$

       b. $[\![play_{object} \ this \ piano]\!] = \lambda e \,.\, \mathbf{play}(e) \wedge \mathbf{theme}(e, \mathbf{this\text{-}piano})$

(7)   a. $[\![the \ piano]\!] = \textsc{piano-kind}$

       b. $[\![play_{object} \ the \ piano]\!] = [\![play_{object}]\!]([\![the \ piano]\!]) = \lambda e \,.\, [\![play_{object}]\!]([\![the \ piano]\!])(e)$

           $= \lambda e \,.\, \exists x^o[^\cup[\![the \ piano]\!](x^o) \wedge [\![play_{object}]\!](x^o)(e)]$ *(by DKP)*

           $= \lambda e \,.\, \exists x^o[^\cup\textsc{piano-kind}(x^o) \wedge \mathbf{play}(e) \wedge \mathbf{theme}(e, x^o)]$

An adverbially-interpreted adjective such as *excellent* is impossible here because the kind 'excellent guitar' is not a well-established one, contrary to the requirements of definite kind reference. For the bare singular cases, we will build on a bleached light-verb counterpart of *play* that occurs with event-denoting DPs, adding only the presupposition that the DP denotes a performance:

(8) a. $[\![\, play_{eventive} \,]\!] = \lambda e : \mathbf{performance}(e) . \lambda e'[e' = e]$

   b. $[\![\, the\ gig \,]\!] = \iota e[\mathbf{gig}(e)]$

   c. $[\![\, play_{eventive}\ the\ gig \,]\!] = \lambda e'[\iota e[\mathbf{gig}(e)] = e']$

The analysis centers on the idea that bare singular instrument nouns have an event-kind reading. *Piano* can refer to the event-kind of producing piano music, PIANO-PLAYING-KIND (*There was piano in that performance*). Indeed, *piano* is a mass term here (*too {much | *many} piano*), and crucially eventive, not equivalent to simply *piano music* (*a piece of {piano music | #piano}*). With eventive light-verb *play*, this yields the correct readings:

(9) a. $[\![\, [_{DP}\ piano\ ] \,]\!] = \text{PIANO-PLAYING-KIND}$

   b. $[\![\, play_{eventive} \,]\!]([\![\, [_{DP}\ piano\ ] \,]\!]) = \lambda e . [\![\, play_{eventive} \,]\!]([\![\, [_{DP}\ piano\ ] \,]\!])(e)$

   $= \lambda e . \exists e^o[\,^{\cup}[\![\, [_{DP}\ piano\ ] \,]\!](e^o) \wedge [\![\, play_{eventive} \,]\!](e^o)(e)]$ (by DKP)

   $= \lambda e . \exists e^o[\,^{\cup}\text{PIANO-PLAYING-KIND}(e^o) \wedge e = e^o]$

   $= \lambda e . \,^{\cup}\text{PIANO-PLAYING-KIND}(e)$

This accurately predicts that $[\![\, play\ piano \,]\!]$ holds of an event that realizes the kind of piano-playing events. Here, adverbial readings of adjectives *are* possible, because in the absence of the definite article, nothing requires well-established kinds. Thus $[\![\, excellent\ piano \,]\!]$ holds of an event that realizes the kind of excellent piano-playing events:

(10) a. $[\![\, [_{DP}\ excellent\ piano\ ] \,]\!] = \iota e^k[\mathbf{piano\text{-}playing}(e^k) \wedge \mathbf{excellent}(e^k)]$

   b. $[\![\, play_{eventive} \,]\!]([\![\, [_{DP}\ excellent\ piano\ ] \,]\!]) = \lambda e . [\![\, play_{eventive} \,]\!]([\![\, [_{DP}\ excellent\ piano\ ] \,]\!])(e)$

   $= \lambda e . \exists e^o[\,^{\cup}[\![\, [_{DP}\ excellent\ piano\ ] \,]\!](e^o) \wedge [\![\, play_{eventive} \,]\!](e^o)(e)]$ (by DKP)

   $= \lambda e . \exists e^o[\,^{\cup}[\![\, [_{DP}\ excellent\ piano\ ] \,]\!](e^o) \wedge e = e^o]$

   $= \lambda e . \,^{\cup}[\![\, [_{DP}\ excellent\ piano\ ] \,]\!](e)$

   $= \lambda e . \,^{\cup}\iota e^k[\mathbf{piano\text{-}playing}(e^k) \wedge \mathbf{excellent}(e^k)](e)$

Likewise, $[\![\, country\ guitar \,]\!]$ doesn't require that there be a kind of instrument by that name, but only that there be a kind of *event of playing* in that way.

   Our main contribution is an analysis of how bare singular instrument terms receive eventive and kind readings, and of how they interact with definiteness and modification. With additional wrinkles, the puzzle extends beyond the lexical semantics of *play* and instrument names to other verbs and other mass concept terms (e.g. *learn (a little bit of) French*). It's a window onto larger issues such as abstract mass terms, number, kind reference, and definiteness. It may also be a window onto the grammar of e.g. *He cuts good hair* and a productive range of similar expressions describing sex acts, in English and elsewhere—notably including genetically distant languages such as Marathi.

References   Aguilar Guevara, A. & J. Zwarts. 2011. Weak definites and reference to kinds. *SALT 20*. | **Carlson, G. 1977.** *Reference to Kinds in English*. Diss., UMass. | **Carlson, G. et al. 2006.** Weak definite noun phrases. *NELS 36*. | **Chierchia, G. 1984.** *Topics in the Syntax and Semantics of Infinitives and Gerunds*. Diss., UMass. | **Dayal, V. 2004.** Number marking and (in)definiteness in kind terms. *L&P*. | **Gehrke, B. & L. McNally. 2015.** Distributional modification. *Lang.* | **Larson, R. 1999.** Semantics of adjectival modification. Lecture notes, LOT Winter School, Amsterdam. | **Schwarz, F. 2009.** *Two Types of Definites in Natural Language*. Diss., UMass. | **Stump, G. 1985.** *The Semantic Variability of Absolute Constructions*.