

Pseudo-incorporation, Event Kinds, and Atelicity

This study, analyzing its interaction with lexical aspect in Turkish, argues that pseudo-incorporation (PI) establishes taxonomic event kinds via singular kind argumentation in the event kind domain.

Puzzle Turkish bare nouns and indefinites with *bir* ‘one’ obligatorily take narrow scope when serving as caseless direct objects. Caseless indefinites (2) are analyzed to undergo VP-level \exists -closure in Diesing style (Kelepir 2001) while caseless bare singulars (sg) (1) are analyzed as PI (Öztürk 2005). Sağ (2022), following Dayal’s (2004) view of definite sg/taxonomic kinds, argues that PI involves sg kind argumentation. Dayal analyzes sg kinds as group-like primitive entities; despite singularity in form, they are conceptually plural, holding a relation with atomic and plural object-level entities associated with kinds. Sağ, naming this relation *belong-to*, argues that it is established in PI, via a local \exists -closure, resulting in a number-neutral, narrow-scope interpretation.

- (1) Ali **kitap** oku-ma-dı. (2) Ali **bir kitap** oku-ma-dı.
Ali book read-NEG-PST Ali one book read-NEG-PST
‘Ali didn’t do book-reading.’ (no books) ‘It is not the case that Ali read a book.’
- (3) a. $\llbracket(1)\rrbracket = \neg\exists e.\exists y[\textit{belong-to}(y, \iota x_k.\textit{book}_k(x_k)) \wedge \textit{read}(e) \wedge \textit{Th}(e) = y \wedge \textit{Ag}(e) = \textit{Ali}]$
b. $\llbracket(2)\rrbracket = \neg\exists e.\exists y[\textit{read}(e) \wedge \textit{Th}(e) = y \wedge \textit{book}(y) \wedge \textit{Ag}(e) = \textit{Ali}]$

Sağ’s analysis treats (1) truth conditionally equivalent to (2); a book-reading event entails reading at least one book. But they differ in their compatibility with *for-adverbials* when used with non-iterable achievements. While PI is felicitous, rendering (4) atelic, a caseless indefinite is not (5).

- (4) Ali bir saat boyunca **tavşan** öldür-dü. (5) *Ali bir saat boyunca **bir tavşan** öldür-dü.
Ali one hour for rabbit kill-PST Ali one hour for one rabbit kill-PST
‘Ali did rabbit-killing for an hour.’ ‘*Ali killed a rabbit for an hour.’

The puzzle deepens with case-receiving, non-PI’ed sg kind arguments as in (6b) (cf. PI in (6a)). Known as *representative object reading*, (6b) disallows *for-adverbial* modification, similar to (5).

- (6) a. Kurum bu bölge-de (bir ay boyunca) **beyaz aslan** keşfet-ti.
institute this region-in one month for white lion discover-PST
‘The institute did white lion-discovering in this region (for a month).’
b. Kurum bu bölge-de (*bir ay boyunca) **beyaz aslan-ı** keşfet-ti.
institute this region-in one month for white lion-ACC discover-PST
‘The institute discovered the white lion in this region (*for a month).’

We seek to reconcile these disparities and distinguish PI from caseless indefinites and canonical (case-marked) sg kind arguments, drawing on Chierchia (2023), which we turn to next.

Kind Argumentation & Atelicity English bare plurals (pl) allow *for-adverbial* modification, like Turkish PI: *Ali killed rabbits for an hour*. Treating *for-adverbials* as of $\langle\langle v, t \rangle, \langle v, t \rangle\rangle$ type (e.g. Krifka 1998), Chierchia posits a “same participant” constraint on their use, à la Champollion et al. (2017) (7). Taking bare pls to denote kinds, he argues that kinds can directly bear thematic roles in episodic predication (Landmann & Rothstein 2012). This allows bare pls to meet (7), as each cell of $\tau(e)$ has the same kind as the theme argument: $\llbracket\textit{kill rabbits}\rrbracket = \lambda e [\textit{kill}(e) \wedge \textit{Th}(e) = \cap\textit{rabbits}]$

- (7) for an hour (V) = $\lambda e. V(e)$ and e lasts one hour and for each temporal cell of a salient cover of $\tau(e)$ (the run-time of e), there is an event e' in V with **the same participants** as those in every other cell of $\tau(e)$ and e is the sum of all such events e'

Chierchia outlines three axioms for pl kind argumentation: (i) Exemplification: A *killing rabbits* event e has parts involving instances of the rabbit kind. (ii) Antitotality: There is no suggestion that the whole kind is involved. (iii) Progressivity: In all w ’s inertial for w there is a continuation

of e in w' ; in absence of external factors, e would tend to go on. Sg kind argumentation lacks these axioms. In (8b), the protagonist is the kind; a *representative* sample of the horse kind’s arrival in Australia concerns the entire kind (totality, no exemplification). This event is not progressive; the kind already arrived (cannot keep arriving). Unlike (8a), where the property applies to instances, allowing continuous arrivals, sg kind argumentation in (8b) is unsuitable for atelic modification.

- (8) a. Horses arrived in Australia with the first immigrants (for a few years).
 b. The horse arrived in Australia with the first immigrants (*for a few years).

Back to Turkish The caseless indefinite in (5) is deviant due to (7), which forces the same rabbit to be killed in every cell. The deviance of (6b) is on par with (8b), but how does PI differ from these? Take PI in (6a). While (6b) is about the whole kind, requiring it was previously undiscovered in this region, PI adheres to the three axioms, akin to pl kind argumentation: (i) the protagonist of a *white lion-discovering* event is some members of the white lion kind, (ii) not the whole kind (the kind itself might have been found earlier). (iii) The event has the potential to continue. Sağ’s PI analysis, thus, needs an adjustment akin to the “kinds as direct arguments” approach to explain compatibility with for-adverbials, yet distinctly from pl kind argumentation. Sağ argues that Turkish bare pls are not PI’ed, partly because they lack name-worthiness. Unlike pl kinds, PI is allowed if it conveys a canonical event type (e.g. Dayal 2011), limiting the noun to sub-kind denoting modification:

- (9) Ali *eski* kitap#(-lar)/ *dini* kitap(-lar) oku-du.
 Ali worn.out book-PL religious book-PL read-PST
 PI (no PL): #Ali did worn-out book-reading. vs. ✓ Ali did religious book-reading.
 No PI (with PL): ✓ Ali read worn-out books. & ✓ Ali read religious books.

PI & Event Kinds Positing event kinds e_k (type v_k) as a primitive (taxonomic) category distinct from event tokens e (type v), we take verbs to denote properties of event k(inds) and event t(okens) (Schäfer 2007, Gehrke & McNally 2011; cf. Schwarz 2014, Sağ 2018, Luo 2022): $\llbracket read_k \rrbracket = \lambda e_k. read_k(e_k)$, $\llbracket read_t \rrbracket = \lambda e. read(e)$. Argument saturation is possible within event kinds to denote the property of a sub-event kind [see VP_k in (14)]. This is manifested as PI in languages like Turkish, via a thematic function θ_k defined on sg kinds and event kinds (e.g., theme introducing Th_k). For canonical argumentation, event-kinds type-shift to event tokens via Event Tokenizer (ET) (10). ET takes an event-kind property V_k of type $\langle v_k, t \rangle$, \exists -closes it, and returns a property of event tokens V of type $\langle v, t \rangle$ that *belong to* the event kind (as event kinds are taxonomic, they hold a *belong-to* relation with event tokens, akin to sg kinds). ET type-shifting entails that, for every thematic kind argument that the event kind has (if any), there is an object-level member or members of that kind, which bears the corresponding thematic role in the event token domain (11). E.g., involvement in a book-reading event kind requires a reading event token with at least one book as its theme (14).

- (10) ET: $\lambda V_k. \lambda e. \exists e_k [belong\text{-}to(e, e_k) \wedge V_k(e_k)]$
 (11) $\exists e. \exists e_k [belong\text{-}to(e, e_k) \wedge \forall x_k [\theta_k(e_k) = x_k \rightarrow \exists y [belong\text{-}to(y, x_k) \wedge \theta_t(e) = y]]]$

PI’ed nouns are interpreted low, as PI is embedded within the \exists -closure of the event token, which takes the narrowest scope. Name-worthiness is not an *ad hoc* condition on PI, but stems from PI denoting event kinds. Kinds are name-worthy as they are classes of objects with regular behavior in nature (Carlson 1977). Similarly, event kinds are classes of well-established/typical events.

PI & Atelicity PI in (6a) is compatible with the for-adverbial (modifying VP_t in (12)), as it satisfies (7); each cell of $\tau(e)$ involves the same sg kind argument at the event kind level. ET bestows PI with the three axioms: Exemplification is ensured via the entailment in (11), also ensuring antitotality since, while the sg kind is involved in the taxonomy of the event kind, it is (some) members of

the kind that are involved in the corresponding event token. Event kinds lead to progressivity; one could go on engaging in the (episodic) event tokens of the *white lion-discovering* event kind in this region perpetually. This contrasts with the event token of *discovering the white lion* in this region (6b), where the sg kind is introduced after the *discovering* event kind is tokenized (13).

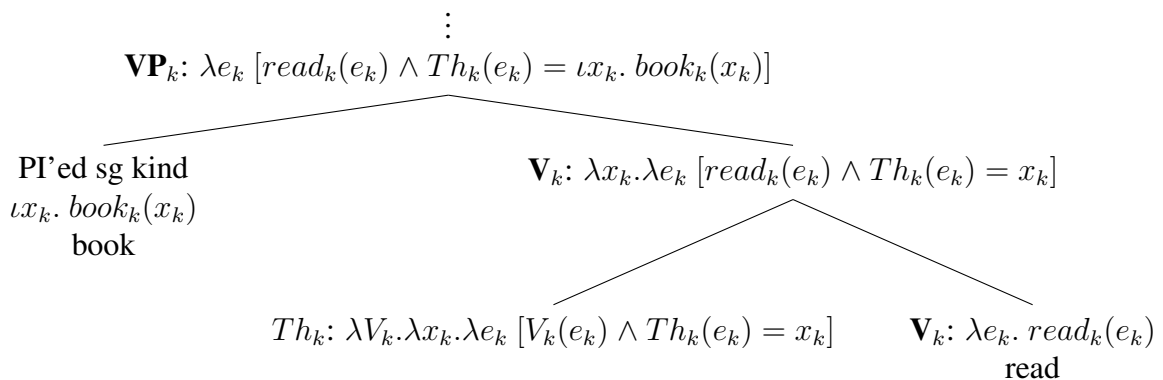
(12) *beyaz aslan keşfet*: $[_{VP_t} \text{ET } [_{VP_k} \text{discover the white-lion}]] = \lambda e. \exists e_k [belong\text{-}to(e, e_k) \wedge [discover_k(e_k) \wedge Th_k(e_k) = \iota x_k. white\text{-}lion_k(x_k)]]$ PI

(13) *beyaz aslan-ı keşfet*: $[_{VP_t} [_{VP_t} \text{ET } [_{VP_k} \text{discover}]] \text{ the white-lion-ACC}] = \lambda e. \exists e_k [belong\text{-}to(e, e_k) \wedge discover(e_k)] \wedge Th_t(e) = \iota x_k [white\text{-}lion_k(x_k)]$ canonical sg kind

As predicted, PI in (6a) is infelicitous with for-adverbials if only a single event e of discovering a white lion entity is involved. While this e is a token of the *white lion-discovering* event kind, for-adverbials require the event to have temporal parts, each satisfying a token of this event kind.

– End of extra 11 lines for glosses and translations –

(14) $[[Ali \textit{ kitap okudu}]]$ ‘Ali did book-reading’: (large figure)
 $\exists e. \exists e_k [belong\text{-}to(e, e_k) \wedge [read_k(e_k) \wedge Th_k(e_k) = \iota x_k. book_k(x_k)]] \wedge Ag_t(e) = Ali]$
 (entails: $\exists e. \exists y [read(e) \wedge belong\text{-}to(y, \iota x_k. book_k(x_k)) \wedge Th_t(e) = y] \wedge Ag_t(e) = Ali]$)



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