From Numeral to Indefinite: A Kind-Sensitive Pathway in Turkish

In articleless languages, bare nouns readily express definiteness, while indefiniteness tends to be marked by the numeral 'one,' often in a reduced or unstressed form. Turkish is one such language, where indefiniteness requires *bir* 'one'. But what exactly is the status of *bir* in these forms? Has it grammaticalized into a *bona fide* indefinite article, or does it remain a numeral in disguise? Our study, aiming to understand how indefinite forms are built in articleless languages, argues that in Turkish at least, *bir* has not yet developed into a true indefinite article, but has evolved into a category distinct from pure numerals. That is, indefinite *bir*-NPs are, in fact, predicative and derive their existential force through type-shifting. Crucially, the primary function of *bir* in these constructions is to map a singular kind to a property of individuals that *belong-to* that kind and are of cardinality one (à la Sağ, 2022).

Distribution of *bir*-NPs. Below, we discuss three types of distributional facts concerning *bir*-NPs.

The syntactic position of bir. Turkish numerals precede NPs, hence appearing in the unmarked order Num » Adj » N and thereby complying with U20 (Greenberg, 1963). On the surface, *bir* seems exceptional in favoring the immediately prenominal position. A closer look reveals that *bir*'s position relative to the adjective correlates with whether it acts as an indefinite or numeral (cf. Bayırlı, 2018).

(1) a. Yanıma **iki** büyük armut, **bir** küçük elma al-dı-m.
with.me two big   pear, one small apple take-PST-1SG
'I took two big pears and <u>one small apple</u> with me.'   cf. # küçük **bir** elma

   b. Ağaç-tan kafama   küçük **bir** elma düş-tü.
from.tree on.my.head small **a**   apple fall-PST
'<u>A small apple</u> fell on my head from the tree.'   cf. # **bir** küçük elma

This effect is sharply observed in predicate position, where the numeral meaning of *bir* is disfavored. Here, *bir* must be immediately prenominal, while the *bir* » Adj » N order is ungrammatical:

(2) Ezo tatlı bir kedi/*Ezo bir tatlı kedi. 'Ezo is a cute cat.'

Modification facts. The shift in *bir*'s use is not just about immediate prenominality: in its indefinite ('a/an') use, *bir* can precede adjectives, but this hinges on kind vs. object-level modification. When the adjective precedes *bir*, it receives an object-level reading; when *bir* precedes the adjective, only the kind-level reading is available. To illustrate, in the given context, (3a) is true, where *uzman* 'skillful' describes a property of Ayla as a doctor, while (3b) is not, where *uzman* means 'specialist,' denoting a subkind. This indicates that adjectives below *bir* cannot be object-level. Similarly, in the given context, (4b) is true, with *beyaz* 'white' specifying a sub-kind of lion, while (4a) is not, where *beyaz* describes a property of the particular lion seen. This shows that adjectives above *bir* cannot be kind-denoting.

Context: Although Ayla hasn't completed her residency and isn't a specialist yet, she is very skillful.

(3) a. Ayla uzman bir doktor.   b. Ayla bir uzman doktor.
Ayla expert a   doctor   Ayla a   expert doctor
Ayla is a skillful doctor.   'Ayla is a specialist doctor.'

Context: We saw a white lion by species, but it wasn't white in color due to a genetic condition.

(4) a. Orman-da beyaz bir aslan gör-dü-k.   b. Orman-da bir beyaz aslan gör-dü-k.
forest-in white a lion see-PST-1PL   forest-in a white lion see-PST-1PL
'We saw a white lion in the forest.'   'We saw a white lion in the forest.'

The existential force. In case-marked argument positions, *bir*-NPs are interpreted as strong indefinites (5) (unlike bare NPs in the same position, which are definite). Consistent with cross-linguistic patterns, they exhibit scopal interaction and exceptional scope. (With accusative, indefinites receive a (partitive-) specific reading even under narrow scope (Enç, 1991); we omit this as tangential to our analysis.)

(5) Eğer *bir çocuğ-a*   yardım ed-er-se-n,   sana   minnettar ol-acağ-ım.
if   a   child-DAT help-AOR-COND-1SG you.DAT grateful   be-FUT-1SG
(i) There is a child and if you help her, I will be grateful to you.
(ii) If you help any child, I will be grateful to you.

In caseless direct-object position (taken to be VP-internal in Kelepir (2001), Zidani-Eroğlu (1997) and Öztürk, (2005)) strong indefiniteness no longer holds: they are confined to narrow-scope interpretation.

(6) Editör metin-de *bir hata* bul-a-ma-dı.

   editor text-in   a typo find-ABIL-NEG-PST
'The editor couldn't find any typo in the text.' / (≠There is a typo that the ed. couldn't find.)

In sum, we aim to account for three core properties of *bir*-NPs in indefinite ('a/an') use: (i) *bir* is merged lower in the nominal structure than numerals, (ii) *bir* may precede a sub-kind-denoting adjective but not an object-level one, and (iii) the strong indefinite interpretation is contingent on case marking.

Analysis. We adopt Sağ's (2022) view that Turkish singular nouns are ambiguous between atomic properties of object-level individuals and of singular kinds, as in Dayal (2004). On Dayal's account, singular kind terms are group-like and resist type-shifting to sets of their members. However, Sağ shows that the *belong-to* relation between a singular kind and its (singular or plural) members is established in certain constructions in Turkish, e.g., via the copula when a bare singular appears as a singular kind in predicate position. We argue that *bir* (in its 'a/an' use) has a similar function: it applies to a property of a singular kind to return an atomic property of individuals that belong to that kind (cf. Martin, 2022). We further propose that this property encodes *one-ness*, distinguishing it from atomic properties of ordinary objects denoted by bare singulars (e.g., the object-level denotation of *kedi*: $\lambda x.\ cat(x) = \{a, b, c\}$).

(7)   a. $[\![bir]\!] = \lambda P_k.\lambda y.\exists x_k\ [\ belong\text{-}to(y, x_k) \wedge P_k(x_k) \wedge \mu_{card}(y) = 1]$
      b. $[\![kedi_k]\!] = \lambda x_k.\ cat_k(x_k) = \{CAT\}$
      c. $[\![bir\ kedi_k]\!] = \lambda y.\exists x_k\ [\ belong\text{-}to(y, x_k) \wedge cat_k(x_k) \wedge \mu_{card}(y) = 1] = \{a, b, c\}$
           (a set of individuals that belong to the cat kind (i.e., CAT), each with cardinality 1, i.e., atomic)

Because *bir* applies to the kind-level denotation of nouns in its indefinite ('a/an') use, it is expected to attach lower than an object-level modifier. Moreover, the fact that *bir*-NPs are predicative explains why strong indefinite readings arise only in case-marked positions. Following Kelepir (2001), in VP-internal (caseless) positions, *bir*-NPs denote properties and acquire a narrow scope existential reading via VP-level ∃-closure, as per Heim (1982) and Diesing (1992), while, when case-marked, they are introduced above the VP. In the VP-external position, *bir*-NPs then must undergo type-shifting to saturate an argument position. Dayal (2004) argues that type-shifters apply in a fixed order, with *iota* ranked above $\exists_f$ (choice-function-based ∃, Reinhart, 1997), i.e., Revised Meaning Preservation. As a result, bare nouns can be definite via ι type-shifting but are incompatible with strong indefinite readings, as the $\exists_f$ type-shift is lower-ranked. This is illustrated in (8), where the bare singular is infelicitous if Cem didn't help a particular child but helped another one (unlike the version with *bir*).

(8)   Cem *çocuğ-a*   yardım et-me-di.
      Cem child-DAT help-NEG-PST
      'Cem didn't help the child.' / (≠Cem didn't help a child.)

We argue that the *one-ness* contributed by *bir* blocks ι type-shifting for *bir*-NPs, enabling the lower ranked $\exists_f$ type-shift and yielding a strong indefinite interpretation. This reflects a broader incompatibility between definiteness and *one*, as definite articles typically resist numeral 'one' in their restrictors (e.g., the one book), modulo contrastive or exhaustive interpretations. We tie this to the *Minimize Restrictors!* constraint (Schlenker, 2019), which bans any expression A in *the A B* if *the B* is also grammatical and has the same denotation as *the A B* (unless *A* has another pragmatic function.) For instance, *MR!* accounts for the oddness of the adjective in *John's (#blond) father has arrived*. In line with this, ι is blocked for *bir-NPs* (e.g., *bir kedi_k* 'a cat'), since their extension is identical to the one of the object-level meaning of the bare noun (e.g., *kedi*), which lacks the additional *one-ness* restriction.

Discussion. Despite encoding *one-ness*, *bir* in its indefinite use differs from its numerical counterpart, and the two should not be conflated. Numerals denote numbers and combine with a (covert or overt, i.e. *tane*) cardinal head that applies to object-level properties in Turkish (Scontras, 2022; Sağ, 2025). The distinction between the two uses of *bir* becomes especially clear when the cardinal head is overt. For example, only the indefinite use (no cardinal head) is licensed in generics, rendering the numeral use infelicitous when numeral meaning is irrelevant (9) (Chierchia, 1998; Dayal, 2004; Kratzer, 1998).

(9)   *Bir (#tane) köpek* genellikle et yer. 'A dog usually eats meat. #One dog usually eats meat.'

To conclude, our study highlights a pathway whereby numerals in articleless languages can evolve into indefinite markers via a semantically distinct, kind-sensitive stage. This proposal may also shed light on puzzling cases in languages like English, where even a fully developed indefinite article—historically derived from *one* (Perlmutter, 1970)—is obligatorily used in predicate position (e.g., *Ezo is *(a) cat*).

References. *hyperlinked to URLs in text.*