TWO TYPES OF OBJECT INCORPORATION IN UZBEK

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1 Introduction

This paper investigates object incorporation in Uzbek (Southeastern Turkic/Karluk), a phenomenon whereby a nominal in the object position integrates into the verb, yielding a closely associated verbal unit much different from a parallel non-incorporated direct object construction. The question of whether Turkic languages employ incorporation and if they do, whether it is true incorporation (TI) or pseudo-incorporation (PI) is subject to an on-going debate. The current study contributes to the discussion by (a) analyzing Uzbek data, under-investigated within the generative framework, and (b) arguing that the same language may exhibit both PI and TI.

 The focus of the present work is on Uzbek *'bare nominals',* i.e. nominals which do not contain determiners, overt quantifiers and inflectional morphology, such as number- and case-marking. Specifically, we argue that, most typically, bare nominals in the object position are pseudo-incorporated (1a) and as complements of light verbs (1b), they may be treated as truly incorporated.

    (1) a. Anvar rasm   chizdi   **(pseudo-incorporation)**
         Anvar picture draw.PST.3SG
         'Anvar drew (a) picture(s).'
      b. Anvar rasm   soldi   **(true incorporation)**
         Anvar picture put.PST.3SG
         'Anvar drew (a) picture(s).' (= 'Anvar drew.')

In discussing various properties of incorporated nominals, we compare them to non-incorporated full-fledged direct objects, i.e. nominals carrying various morphological elements, such as determiners, quantifiers, number and case suffixes.[1] For instance, (2a) contains an example of a singular definite object, marked with the accusative case suffix *-ni*. Direct objects can also contain the indefinite determiner *bir/bitta ('one, a')*, which gives rise to an existential reading of the nominal (2b).[2] Such objects may occur either marked or unmarked. As a rule, the presence of the accusative indicates specificity, while its absence signals the nominal's non-specificity. Lastly, (2c) illustrates a plural object, carrying the plural suffix *–lar.* While unmarked plural objects are interpreted as indefinite and non-specific, case-marked plurals receive definite interpretation.

(2) a. Anvar **rasm-ni**   chizdi
        Anvar picture-ACC draw.PST.3SG
        'Anvar drew the picture.'
     b. Anvar **bir/bitta rasm(-ni)**   chizdi
        Anvar one   picture-ACC draw.PST.3SG
        'Anvar drew a (non-specific) picture.'/ 'Anvar drew a (specific) picture.'
     c. Anvar **rasm-lar(-ni)**   chizdi
        Anvar picture-PL-ACC draw.PST.3SG
        'Anvar drew pictures.'/ 'Anvar drew the pictures.'

In the discussion below, we show that in contrast to the full-fledged regular direct objects as in (2), bare nominals as in (1) exhibit morpho-syntactic and semantic hallmarks of incorporation, such as *reduced or minimal nominal structure, obligatory narrow scope*, *number-neutrality*, *atypical discourse anaphora* and *name-worthiness* (Dayal, 2003, 2011, 2015; Borik & Gehrke, 2015).

The paper is organized in the following way: section 2 provides theoretical background on object incorporation and presents central notions pertaining to the cross-linguistic phenomenon. In section 3, we explore object incorporation in Uzbek. Specifically, in subsection 3.1 we argue that bare nominals combined with main verbs undergo pseudo-incorporation and in subsection 3.2 we argue that bare nominals combined with light verbs undergo true incorporation. Finally, section 4 concludes the paper.

2   Object Incorporation across Languages

The term 'incorporating' ('einverleibend') was used earliest by von Humboldt (1836) in relation to polysynthetic languages, such as Nahuatl (Uto-Aztecan), in which words can be comprised of multiple lexical roots. The discussion of the phenomenon has originated from and has been central to the study of various Native American languages, with the term having eventually come

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[1] Uzbek, like other Turkic languages, is a differential object marking (DOM) language (see Guntsetseg et al., 2008; von Heusinger et al., 2008).

[2] *Bir* originates from the numeral 'one' and *bitta* is its classified form, containing a Persian suffix *–ta*. Here we treat them as two forms of the same article, using in the rest of the examples the form *bitta*, which is more common in Modern Standard Uzbek. However, see von Heusinger & Klein (2013) for the contrasts between the two.

to refer to a specific instance of a coalescence of a nominal in the object position and a verb, known as 'noun incorporation' or 'object incorporation'[3].In this regard, a seminal debate between Kroeber (1909, 1911) and Sapir (1911) demonstrates that the nature of incorporation has been contested from early on. As Haugen (2008) points out, the essence of this debate relates to a once major theoretical issue: the division of labor between morphology and syntax in word-formation, and whether or not morphology exists as a separate module. Hence, according to Haugen, the debate foreshadows the later dispute between syntactic and lexical approaches to word-formation, and their respective treatment of noun incorporation across languages (see, among many others, Sadock, 1980, 1985; Baker, 1988; Mithun, 1984; di Sciullo & Williams, 1987; Rosen, 1989).

Over the years, the cross-linguistic inquiry into the phenomenon has also gained a semantic dimension, with a number of influential studies, identifying essential semantic attributes of incorporation related to number interpretation, scopal behavior, and anaphoric potential (see among others, Bittner 1994; van Geenhoven, 1996, 1998). Subsequently, object incorporation has come to be viewed as a phenomenon encompassing two equally important components, namely 'morpho-syntactic' and 'semantic' (Massam, 2001; Dayal, 2003, 2011, 2015; Farkas & de Swart, 2003; Espinal & McNally, 2011; Modarresi & Simonenko, 2007; Modarresi, 2014; Krifka & Modarresi, 2016, Borik & Gehrke, 2015).

Starting with the pivotal work by Massam (2001), the literature distinguishes between two types of object incorporation: true incorporation (aka canonical/classical incorporation) and pseudo-incorporation.

In the broadest possible sense, true incorporation (TI) involves a morpho-phonological and/or a morpho-syntactic fusion of the nominal and the verb, as shown in (3a). Cross-linguistically, TI nominals have a minimal structure, i.e. they are at most N^0s (roots, stems, or head nouns), and share a strong tie with their verbal predicates, appearing strictly verb-adjacent. Frequently TI is characterized by a change in valency of the incorporating verb, the so-called detransitivization, which is especially vivid in ergative-absolutive languages (cf. Mithun, 1984; van Geenhoven, 1998).

(3) Yucatec (Mayan) (based on Mithun, 1984: 857):
    a. ***č'ak- če'**-n-ah-en*   **(true incorporation)**
       chop-tree-ANTIPASS-PERF-I (ABS)
       'I wood-chopped' = 'I chopped wood.'
    b. *t-in-**č'ak-Ø**-ah*   *če'*   **(lack of incorporation)**
       COMP-I-chop-it-PERF tree
       'I chop a tree.'

Pseudo-incorporation (PI) comprises a less allied relation between the nominal in the object position and the verb (4a) (Massam, 2001; Dayal, 2003, 2011, 2015; Farkas & de Swart, 2003; Espinal & McNally, 2011; Öztürk, 2005, 2009; Kamali, 2015; Modarresi, 2014). Both TI and PI nominals lack morpho-syntactic elements corresponding to the marking of definiteness/specificity and number. However, unlike in TI, PI nominals allow a variety of

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[3] The term 'object incorporation' is used in the literature descriptively to refer to the fact that such incorporation targets the position usually associated with direct objects and to distinguish the phenomenon from 'subject incorporation'.

phrasal modifiers, e.g. adjectives, participles, relative clauses, and, in some languages, case-and/or number-marking. Additionally, PI nominals exhibit a relative morpho-syntactic independence from their incorporating verbs. They generally lack strict verb-adjacency and do not affect verbal valency.

> (4) Hindi (Indo-Aryan) (Dayal, 2011: 135):
>   a. Ram   **macchlii pakaR** rahaa   hai   **(pseudo-incorporation)**
>   Ram(MASC) fish(FEM) catch   PROG-MASC-SG be-PRS
>   'Ram is catching fish.'
>   b. Ram-ne   **macchlii**-ko   **pakaRaa**   **(lack of incorporation)**
>   Ram-ERG fish(FEM)-ACC catch-MASC-SG-PFV
>   'Ram caught the fish.'

Importantly, both types of incorporated structures share morpho-syntactic and semantic characteristics, which set them apart from 'full-fledged/regular direct object constructions', i.e. constructions, containing a non-incorporated referential DP (determiner phrase) complement of a transitive verb. Broadly, the attributes of object incorporation are:

I. *Morpho-syntactic deficiency:*

a) Nominal structure: incorporated nominals lack functional projections pertaining to regular DP/KP objects. While in TI the nominal structure is *minimal*, i.e. bare noun (N^0), in PI, it is *reduced*, i.e. phrasal (NP, even NumP). This point is illustrated in the following schema by Dayal (2015):

> (5) (from Dayal, 2015: 52):

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            DP ← non-incorporated nominals
           /  \
          /    \
     D          NP ← pseudo-incorporated nominals
               /  \
              /    \
     #/Modifiers    N ← canonically incorporated nominals
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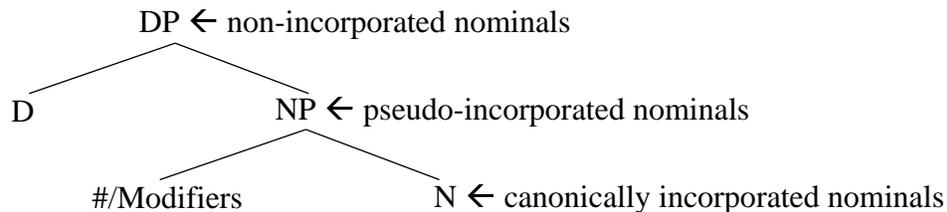
b) Syntactic position: the distance between the incorporated nominal and the verb is minimized (6). In TI, both elements are completely bare and form a single morpho-syntactic unit. In PI, nominals are closer to verbs than regular direct objects, but have a relatively independent status as syntactic complements of transitive verbs.

(6) (from Dayal, 2015: 52; altered to include vP, mentioned by Dayal in the text):

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        VP ← standard complementation
       /  \
     DP     V' / vP ← pseudo-incorporation
           /  \
         NP     V ← canonical incorporation
              /  \
             N     V
```
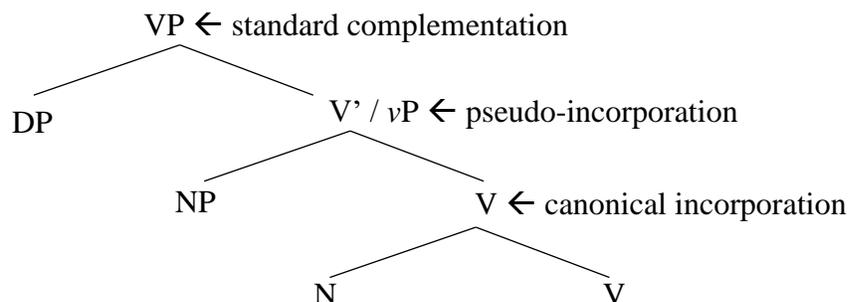
II. *Semantic deficiency:*

a) Obligatory narrow scope: incorporated nominals are scopally inert and cannot receive a wide-scope interpretation.

b) Number-neutrality: morpho-syntactically singular incorporated nominals receive semantically singular and plural interpretations.

c) Atypical anaphora: anaphoric accessibility of incorporated nominals stands in contrast to that of regular non-incorporated objects.

d) Name-worthiness: an incorporated verbal construction is interpreted as a conceptual whole.

Both types of object incorporation have been proposed for Turkic languages. Some of the researchers argue for TI (Mithun, 1984; Knecht, 1986; Kornfilt, 1997, 2003; Aydemir, 2004, all regarding Turkish) and some for PI (Öztürk, 2005, 2009; Kamali, 2015 for Turkish; Baker, 2014 for Sakha) and yet some against both TI and PI (Lyutikova & Pereltsvaig, 2015 for Tatar) in a given language.[4]

The advancement of these competing proposals concerning Turkic languages raises a natural question as to whether object incorporation takes place in Uzbek.

In the next two sections, we demonstrate that both morpho-syntactic and semantic evidence indicates that Uzbek employs incorporation of bare nominals. We argue that the type of incorporation depends on the verb: main verbs are involved in pseudo-incorporation and light verbs, in true incorporation.

3 Object Incorporation in Uzbek

3.1 Pseudo-Incorporation

The investigation of constructions containing a bare nominal and a main verb shows that there is no true morpho-syntactic fusion between the two. Bare nominals (i) have a reduced, but phrasal

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[4] Lyutikova & Pereltsvaig (2015) argue that Tatar bare nominals are not incorporated, but briefly suggest that bare nominals in light verb constructions may be analyzed as pseudo-incorporated.

structure and (ii) maintain a relative independence, acting as syntactically mobile complements of transitive verbs (similar to full-fledged direct objects).

Furthermore, bare nominals in such constructions exhibit all semantic hallmarks of object incorporation: (i) obligatory narrow scope, (ii) number-neutrality, (ii) atypical discourse anaphora of the nominal and (iv) name-worthiness. We conclude that these properties together serve as evidence against TI and in favor of PI.

Finally, we propose that bare nominals denote properties (of type <e, t>), that get incorporated into transitive verbs (of type <e, <e, t>>) by the non-saturating semantic mode of composition, namely predicate restriction (Chung & Ladusaw, 2004; Modarresi, 2014).

3.1.1   Morpho-Syntactic Evidence

As mentioned earlier, morpho-syntactic deficiency is a cross-linguistically acknowledged property of incorporation. In Uzbek, bare nominals are deficient both in their functional structure and in syntactic position.

a) *Reduced phrasal nominal structure*

Typically, the functional architecture of Uzbek bare nominals is reduced but phrasal. In addition to lacking case-, number-marking and the indefinite article *bir/bitta* (cf. (2) above), bare nominals cannot be preceded by demonstratives, universal quantifiers (whether collective or distributive) and possessives. In the presence of all of the above, the nominal obligatorily receives accusative marking and is ungrammatical without it (7). The unacceptability of the elements in question indicates *a reduced nominal structure.*[5]

(7) a. Anvar **bu** rasm-*(ni)   chizdi
        Anvar this picture-ACC draw.PST.3SG
        'Anvar drew this picture.'
    b. Anvar **hamma** rasm-*(ni)/   **har   bitta** rasm-*(ni)   chizdi
        Anvar every   picture-ACC every one   picture-ACC draw.PST.3SG
        'Anvar drew every picture.'
    c. Anvar Ra'no-**ning** rasm-**i**-*(ni)   chizdi
        Anvar Rano-GEN picture-3SG-ACC draw.PST.3SG
        'Anvar drew Rano's picture.'

At the same time, bare nominal complements of main verbs have *a phrasal structure*: they allow modification by adjectives (8a) and relative clauses (RC) (8b). For instance, adjectival adverbs like *g'oyibona*, which are ambiguous between adjectival and adverbial meanings, result in the two readings specified in (8a). Thus, *g'oyibona* can modify both the whole verbal construction and – crucially for our purposes - the bare nominal. In turn, RC modification is only possible if the RC serves as a general characteristic of the nominal, without causing it to be

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[5] We assume that Uzbek nominal architecture includes the DP projection. However, note that the presence of DP in Turkic languages is debated (see among many others, Lewis, 1967; Kornfilt, 1997; Öztürk, 2005; Bošković & Şener, 2014; Arslan-Kechriotis, 2006 for Turkish; Lyutikova & Pereltsvaig, 2015 for Tatar; von Heusinger & Kornfilt, 2017 for Turkish, Azeri, Uzbek, Kirghiz, Sakha).

interpreted as specific. Thus, in (8b) the RC modifying the bare nominal refers broadly to the quality of Anvar's picture(s), which is clear from the imperfective aspect.

(8) a. Anvar **g'oyibona** rasm   chizdi
       Anvar secret(ly)   picture draw.PST.3SG
       1. 'Anvar drew (a) picture(s) secretly.'
       2. 'Anvar drew (a) secret picture(s).'
    b. Anvar **hammani   hayratlan-tir-adi-gan**   rasm   chiz-adi
       Anvar everyone.ACC astonish-CAUS-IMPRF.3SG-PTCPL picture draw-IMPRF.3SG
        'Anvar draws (a) picture(s) that astonish(es) everyone.'

The possibility of such modification reflects the potential phrasal structure of such nominals, which is a strong evidence against their TI.

b) *Syntactic independence*

Cross-linguistically, TI is identified based on the morpho-syntactic fusion of a nominal (N^0) and a verb (V^0), frequently resulting in detransitivization of the verb. In Uzbek, however, no such fusion takes place between a bare nominal and a main verb. Although preverbal, such bare nominals do not need to be strictly verb-adjacent and act as syntactically visible complements of transitive verbs. These properties taken together point against TI in the constructions under discussion.

The example below shows that both case-marked and unmarked complements of main verbs may appear as stand-alone answers to a 'wh'-question. This serves as an indication that such nominals, including bare nominals, are syntactic constituents.

(9) Q: Anvar nima ko'rdi?   A: Bitta kino(-ni)/   kino-ni/   **kino**
       Anvar what see.PST.3SG   one   movie-ACC movie-ACC movie
       'Q: What did Anvar see? A: A movie/ the movie/ **(a) movie(s)**.'

Identical to that in Turkish (Öztürk, 2009), it is possible to omit the verb under identity (10a), conjoin verbs serving as predicates of the same object nominal (10b) and conjoin bare nominals in the preverbal position (10c).

(10) (adapted from Öztürk's Turkish example, 2009: 339):
     a. Anvar kino   emas, spektakl ko'rdi
        Anvar movie not   play   see.PST.3SG
        'Anvar saw (a) play(s), not (a) movie(s).'
     b. Anvar rasm   chizdi   va   men-ga berdi
        Anvar picture draw.PST.3SG and I-DAT give.PST.3SG
        'Anvar drew (a) picture(s) and gave it (them) to me.'
     c. Anvar portret va   manzara chizdi
        Anvar portrait and landscape draw.PST.3SG
        'Anvar drew (a) portrait(s) and (a) landscape(s).'

As shown in all examples above, Uzbek bare nominals take a preverbal position, which falls into the general Turkic pattern. In neutral sentences, i.e. sentences with default word order and

information structure, bare nominals cannot be separated from the verb (11a), whereas regular objects can (11b):

(11) (adapted from Baker's Sakha example, 2014: 8):
    a. Men Masha-ga   kitob (*Masha-ga)   berdim
       I   Masha-DAT book (*Masha-DAT) give.PST.1SG
       'I gave (a) book(s) to Masha.'
    b. Men Masha-ga   kitob-ni   (Masha-ga)   berdim
       I   Masha-DAT book-ACC (Masha-DAT) give.PST.1SG
       'I gave the book to Masha.'

However, in Uzbek, unlike in Sakha (Baker, 2014) and Tatar (Lyutikova & Pereltsvaig, 2015), and similar to Turkish (Öztürk, 2005, 2009; Kamali, 2015) and other PI languages (see among others, Dayal, 2015 for Hindi; Modarresi, 2014 for Persian; Farkas & de Swart, 2003 for Hungarian), adjacency of bare nominals to main verbs may be violated in two ways. First, by insertion of focus-related elements between the nominal and the verb. Second, by scrambling of the nominal to the left and right peripheries of the sentence.

In the former case, a focus particle *ham* ('also') (12a), a contrastive focal clitic *–chi* (12b) and focused adverbs (12c) may come between the bare nominal and the main verb.

(12) a. Anvar rasm   **ham** chizdi
      Anvar picture also draw.PST.3SG
      'Anvar also drew (a) picture(s).'
    b. Anvar kitob**-chi**, o'qidimi?
      Anvar book-PR   read.PST.3SG.Q
      'What about (a) book (s), has Anvar read it (them)?'
    c. Anvar kuzda   palto **kamdan-kam/ ozgina bo'lsa-da/ jinday** kiydi
      Anvar autumn.LOC coat rarely   a little although   briefly wear.PST.3SG
      'Anvar wore (a) coat(s) rarely/ a little/ briefly in autumn.'

In the latter case, adjacency-violation is achieved via scrambling of the bare nominal.[6] As shown in (13a), the bare nominal can be dislocated to the left periphery of the sentence, when it serves as a contrastive topic, marking the presence of other alternatives (note that *kitob* is followed by the contrastive topic marker *esa)*. As shown in (13b), the bare nominal can also undergo rightward scrambling to the post-verbal position, i.e. may be backgrounded.

(13) (based on Öztürk, 2009: 339 for Turkish and Modarresi, 2014: 18 for Persian):
    a. Q: Kim rasm   chizdi   va kim kitob o'qidi?
       Who picture draw.PST.3SG and who book read.PST.3SG
       'Who drew (a) picture(s) and who read (a) book(s)?'
     A: **Rasm** Anvar chizdi,   **kitob** esa   Ra'no o'qidi
      Picture Anvar draw.PST.3SG book C.T.M Rano read.PST.3SG
      'It was Anvar, who drew (a) picture(s) and Rano who read (a) book(s).'

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[6] The default word order in Uzbek is SOV, but scrambling is common and results in the following possible orders: SVO, VSO, OVS, VOS and OSV.

b. Voy, (men) chizdim   **rasm**!
   Hey   I   draw.PST.1SG picture
   'Hey, I did draw (a) picture(s).'

It follows from the discussion in section 2, that linear adjacency of the nominal to the verb is a natural outcome of morpho-syntactic coalescence in TI. In turn, its absence is a strong argument against TI. Neither lexical compounding, nor syntactic incorporation via head-movement, nor head-to-head merge analyses of TI can account for the ability of the incorporated nominal to leave the verb-adjacent position and to have a considerable syntactic mobility. Overall, the data so far strongly suggests the absence of an unbreakable morpho-syntactic tie between bare nominals and main verbs.

Turning to the syntactic status of bare nominals as complements of transitive verbs, the example below illustrates that, just like the full-fledged case-marked direct objects, bare nominals block the possibility of an 'extra object' nominal (term due to Chung & Ladusaw, 2004):

(14) *Anvar **manzara** rasm   chizdi
        Anvar landscape picture draw.PST.3SG
        Intended: 'Anvar picture-drew (a) landscape(s).'

Based on the combination of the morpho-syntactic evidence discussed in this subsection, we conclude that the treatment of constructions containing bare nominals and main verbs as involving TI is infeasible. Our findings are in line with Öztürk (2005, 2009) and Kamali (2015) for Turkish.

3.1.2   Semantic Evidence

Discussing the semantic evidence in favor of PI in Uzbek, we will illustrate that constructions containing bare nominals, unlike those with regular direct objects, manifest a number of semantic hallmarks of pseudo-incorporation, such as (i) obligatory narrow scope, (ii) number-neutrality, (ii) atypical discourse anaphora of the nominal, and (iv) name-worthiness of the whole verbal construction. Coupled with the morpho-syntactic features discussed in the previous section, the presence of these semantic features strongly suggests that Uzbek employs pseudo-incorporation.

a) *Obligatory narrow scope*
One of the steadfast cross-linguistic properties of incorporated nominals is ***'obligatory narrow scope'*** interpretation, resulting from their scopal inertness. In Uzbek, bare nominals cannot scope over intensional operators (15), negation and universal quantification.

(15) Ra'no maqola o'qishi   kerak
        Rano article read.3SG must
        'Rano must read (an) article(s).'
        Must > $\exists$x: Rano must read some article(s) or other.
        *$\exists$x > Must: There exist(s) (an) article(s) such that Rano must read it (them).

In contrast, non-incorporated regular indefinite (16a) and definite (16b) direct objects allow for a wide scope interpretation.

(16) a. Ra'no **bitta** maqola**(-ni)** o'qishi   kerak
           Rano one article-ACC read.3SG must
           'Rano must read an article.'
           Must > ∃x: Rano must read some article or other.
           ∃x > Must: There exists an article such that Rano must read it.
      b. Ra'no maqola-**ni** o'qishi   kerak
           Rano article-ACC read.3SG must
           'Rano must read the article.'
           ιx Article(x): There is a unique article that Rano must read.
           (*Must > ∃x: Rano must read some article or other.)

b) Number-neutrality

Uzbek bare nominals are number-neutral, i.e. although formally singular, such nominals are compatible with both singular and plural interpretation (17a), which is yet another feature of incorporation. In contrast, singular direct objects (i.e. objects with an article and/or case-marking) express strict semantic singularity (17b) and formally plural direct objects, strict semantic plurality (17c).

(17) a. Ra'no maqola o'qidi
           Rano article   read.PST.3SG
           'Rano read (an) article(s).'
      b. Ra'no **bitta** maqola**(-ni)**/ maqola-**ni**   o'qidi
           Rano one   article-ACC article-ACC read.PST.3SG
           'Rano read an article/ the article.'
      c. Ra'no maqola-**lar(-ni)** o'qidi
           Rano article-PL-ACC read.PST.3SG
           'Rano read articles/ the articles.'

c) Atypical anaphora

Turning to the discourse properties of nominals, it is important to note briefly that with the exception of such languages as West Greenlandic and Mapudungun (cf. Sadock, 1980; Bittner, 1994; van Geenhoven, 1998; Baker, 2006), TI languages are characterized by 'discourse opacity' of incorporated nominals; i.e. their inability to serve as an antecedent to pronouns in discourse. In contrast, incorporated nominals in most PI languages tend to exhibit different levels of accessibility to various types of anaphora (mostly covert, but also overt) (cf. Farkas & de Swart, 2003; Yanovich, 2008; Dayal, 2011; Espinal & McNally, 2011; Modarresi, 2014; Kamali, 2015; Krifka & Modarresi, 2016).

In Uzbek, similar to other PI languages, bare nominals are not discourse opaque. Moreover, based on their accessibility for both overt and covert anaphoric uptake, we conclude that such nominals are in fact discourse transparent. However, one of the striking differences of anaphoric uptake of bare objects is their unique ability to antecede both singular and plural overt anaphora.

The example below shows that bare nominals are accessible for overt pronouns (18a), the possessive pronominal clitic (18b), as well as covert or null anaphora (18c). Note that the former

two are sensitive to number specification and carry morphological signs of number agreement. Yet, the bare nominal is accessible for both singular and plural anaphoric expressions. The data is well-matched with the number-neutrality of such nominals and with the reported discourse transparency of bare objects in Turkish (Bliss, 2004; Kamali, 2015) and Tatar (Lyutikova & Pereltsvaig, 2015).

(18) Anvar **rasm**$_i$ chizdi
   Anvar picture draw.PST.3SG
   'Anvar drew (a) picture(s).'
   a. Men **u-ni**$_i$/ **ular-ni**$_i$ tezda   sotdim   **(overt pronominal anaphora)**
     I   it-ACC them-ACC quickly sold.PST.1SG
     'I sold it/ them quickly.'
   b. Narx-**i**$_i$/   narx-lar-**i**$_i$ ancha baland **(possessive pronominal anaphora)**
     price-POSS.3SG price-PL-POSS.3SG quite high
     'Its price is quite high. / Their prices are quite high.'
   c. Ra'no **Ø**$_i$ sotib   oldi   **(covert anaphora)**
     Rano   *pro*$_i$ buy.CVB take.PST.3SG
     'Rano bought it/ them.'

Compare this to the discourse properties of full-fledged direct objects. As shown in (19), morpho-syntactically singular standard objects can only be picked up by singular anaphoric expressions:

(19) Anvar **bitta rasm(-ni)**$_i$/ **rasm-ni**$_i$ chizdi
   Anvar one picture-ACC picture-ACC draw.PST.3SG
   'Anvar drew a picture/ the picture.'
   a. Men **u**-ni$_i$ / *****u-lar**-ni$_i$ tezda   sotdim   **(overt pronominal anaphora)**
     I   it-ACC/ *it-PL-ACC quickly sell.PST.1SG
     'I sold it quickly.' (not 'I sold them quickly.')
   b. Narx-**i**$_i$/   *****narx-lar-**i**$_i$ ancha baland **(possessive pronominal anaphora)**
     price-POSS.3SG price-PL-POSS.3SG quite high
     'Its price is quite high.' (not 'Their prices are quite high.')

In turn, morpho-syntactically plural objects license plural anaphora only:

(20) Anvar **rasm-lar(-ni)**$_i$ chizdi
   Anvar picture-PL-ACC draw.PST.3SG
   'Anvar drew (the) pictures.'
   a. Men **u-lar**-ni$_i$/ *****u**-ni$_i$ tezda   sotdim   **(overt pronominal anaphora)**
     I   it-PL-ACC it-ACC quickly sell.PST.1SG
     'I sold them quickly.' (not 'I sold it quickly.')
   b. Narx-**lar-i**$_i$/   *****narx-**i**$_i$ ancha baland **(possessive pronominal anaphora)**
     Price-PL-POSS.3SG price-POSS.3SG quite high
     'Their prices are quite high.' (not 'Its price is quite high.')

Covert anaphora lacks any number sensitivity and, therefore, can be used in relation to all types of full-fledged objects, independently of their number.

Turning back to bare nominals, it is important to note that their anaphoric uptake is not unimpeded. Generally, while covert anaphora in relation to bare objects seems unproblematic, speakers' judgments of overt anaphoric uptake tend to vary. Thus, in some contexts, it seems that one, but not the other, overt anaphoric expression is acceptable. In this regard, Uzbek bare nominals behave similarly to pseudo-incorporated nominals in Persian, whose anaphoric accessibility is determined by world knowledge (cf. Modarresi, 2014; Krifka & Modarresi, 2015).

d) Name-worthiness

The semantic property of name-worthiness in PI concerns the interpretation of the whole incorporated construction. Dayal (2015) uses 'name-worthiness' as a general term consolidating a number of interdependent qualities of incorporated units. These qualities include: *'institutionalization'* (i.e. labeling a recognizable, culturally familiar or habitual activity); *'gaps'* (i.e. the ungrammaticality of some nominal-verb combinations); and *'non-compositionality'* (i.e. interpretation of incorporated structures idiomatically).

In Uzbek, constructions containing bare nominals and main verbs seem to be mostly sensitive to the former two qualities, namely institutionalization and gaps.

Institutionalization effect captures the interpretation of verbal units as stereotypical or conventional activities. Consider (21), where *book-reading* is recognized as an institutionalized activity, but *word-reading* strikes as an odd combination.

(21) a. Anvar kitob o'qidi
       Anvar book read.PST.3SG
       'Anvar read (a) book(s).'
    b. ??Anvar so'z o'qidi
         Anvar word read.PST.3SG
         'Anvar read (a) word(s).'

Institutionalization is frequently responsible for the acceptability of certain combinations that we do not usually expect. In particular, we refer to the potential pseudo-incorporation of animate nominals (22a) and proper names (22b). Although, within the Uzbek DOM paradigm, [+human] objects are most often case-marked, while proper names are obligatorily case-marked, in certain institutionalized activities such nominals may appear bare.

(22) a. Bu shaxs   odam o'ldirdi
       This individual human kill.PST.3SG
       'This individual murdered (a) human(s).'
    b. Biz Samarkand aylandik
       We Samarkand stroll.PST.1PL
       'We strolled around Samarkand.'

Concerning the existence of occasional mishaps, *gaps,* in nominal-verb combinations as in (21b), these are unsystematic and may be bridged. As the cross-linguistic literature on incorporation indicates, such combinations become possible if a context is construed, where the

activity is seen as frequently performed and conventional (see among others, Mithun, 1984; Dayal, 2015 for Hindi; Modarresi, 2014 for Persian; Farkas & de Swart, 2003 for Hungarian). Similarly, Uzbek combinations may be forced to become acceptable if the context is manipulated accordingly. For instance, if we imagine that a certain competition involves a task of *word-reading*, then this combination becomes acceptable in a given context.

Although, idiomatization is not a characterizing quality of constructions containing bare nominals and main verbs, there seems to be a form of semantic expansion of the meaning of the whole construction. In (23a) the combination *tea-drink* may be interpreted quite broadly as involving other activities, such as having a snack or a treat, as well as social interaction. In turn, with a parallel definite object, the meaning of the combination is always compositional (23b).

(23) a. Kel,   choy ichamiz
         Come tea   drink.FUT.1PL
         'Come, we will drink tea.'
     b. Kel,   choy-ni   ichamiz
         Come tea-ACC drink.FUT.1PL
         'Come, we will drink the tea.'

To sum up, the morpho-syntactic and semantic evidence presented in subsections 3.1.1 and 3.1.2, respectively, strongly indicates that bare objects of main verbs undergo a type of object incorporation that must be analyzed as pseudo-incorporation, rather than true incorporation.

3.1.3   Analysis of Pseudo-Incorporation in Uzbek

We follow the general trend in the research of treating incorporated nominals as denoting properties, i.e. of the type <e,t> (cf. van Geenhoven 1996, 1998; Dayal, 2003, 2011, 2015; Farkas & de Swart, 2003; Chung & Ladusaw, 2004; Kagan, 2005, 2012, 2015; Dobrovie-Sorin et al., 2006; Espinal & McNally, 2011; Modarresi, 2014). A range of proposals have been made in the literature regarding the semantic combination of a property-denoting bare nominal and a transitive verb of the type <e,<e,t>> (cf. references listed above.) The Uzbek data discussed above is compatible with various accounts. One option is to adopt for Uzbek Chung & Ladusaw's (2004) analysis and its adaptation by Modarresi (2014) for Persian PI. Under this account, in Uzbek PI, the meaning of the predicate gets restricted to the meaning of the nominal via RESTRICT; i.e. an operation that facilitates a direct combination of a property and a predicate. The property in such a combination is a restrictive modifier. Since predicates are functions, the initial domain of the predicate gets restricted to its subdomain. The application of RESTRICT is illustrated in (24a), where, as the result of the operation, the meaning of the predicate *drew* gets restricted to the meaning of the nominal *picture*, with the latter acting as a restrictive modifier of the former.

(24) Anvar rasm   chizdi
      Anvar picture draw.PST.3SG
      'Anvar drew (a) picture(s).'
      a. RESTRICT $(\lambda y \lambda x$ [draw'(y)(x)], picture') $= \lambda y \lambda x$ [draw'(y)(x) $\wedge$ picture'(y)]
      b. EC (RESTRICT $(\lambda y \lambda x$ [draw'(y)(x)], picture')) $= \lambda x \exists y$ [draw'(y)(x) $\wedge$ picture'(y)]

RESTRICT is a non-saturating mode of composition: when a transitive predicate of the type <e,<e,t>> combines with a bare nominal of the type <e,t>, the latter does not satisfy the argument position of the former. Therefore, Chung & Ladusaw (2004) propose that the total semantic predicate saturation takes place via existential closure (EC). This operation occurs immediately above the verbal phrase (*v*P) and provides an existential binding to the argument variable (24b). Consequently, EC closes off the predicate's argument position.

This analysis accounts for a range of special properties that characterize Uzbek bare nominals. Firstly, their **'deficient morpho-syntax'** is captured by the proposal that these are bare NPs. Their inability to contain demonstratives, quantifiers, plural morphology and other functional elements is related to the absence of the NumP and DP projections in the structure. (Obviously, an object may contain a numeral, a demonstrative, etc., but in this instance, it is no longer bare and does not exhibit the set of PI properties described above.) Second, semantic number neutrality is, again, linked to the absence of the NumP projection. We assume that morphologically, the nominals are singular since the singular constitutes the default form of Uzbek nouns (whereas in order to create the plural, the suffix *-lar* has to be added).

Secondly, the proposed analysis explains the scopal behavior of PI objects, namely their **'obligatory narrow scope'** interpretation. Property-denoting expressions are expected to be scopally inert. Further, bare nominals reside below the existential closure. This, too, explains why Uzbek bare nominals cannot receive wide scope interpretation. Note that although it has been shown that the bare nominals (unlike truly incorporated ones) may occur in a non-verb-adjacent manner, they still obligatorily receive the narrow scope reading as shown in (25). This, again, indicates that PI nominals are interpreted below EC.

(25) Rasm, Anvar chizishi   kerak
     Picture Anvar draw.3SG must
     'It is Anvar who must draw (a) picture(s).'
     Must > ∃x: Anvar must draw some picture(s) or other(s).
     *∃x > *Must:* There exist(s) (a) picture(s) such that Anvar must draw it (them).

Thirdly, the current analysis accounts for the '**name-worthiness'** of the whole verbal construction. In particular, the result of predicate restriction is that the domain of the predicate serving as a function gets narrowed down to its subdomain, e.g. from 'drew' to 'picture-drew'. The nominal in such a construction is number-neutral, denotes a property and does not refer to a particular or a specific object, serving as a mere restrictive modifier of the verb. As a result, the construction itself tends to be interpreted as a unitary concept, used as a label for a recognizable, culturally familiar, or habitual activity; i.e. an institutionalized activity. Note also that the possibility of forcing gaps into becoming institutionalized activities follows from the identified process behind predicate restriction. Specifically, it indicates that, since the nominal denotes a property, it can potentially enter into the RESTRICT relation with the verb.

Finally, the **'atypical discourse anaphora'** of Uzbek bare objects is particularly difficult to account for, given that the descriptive facts are complex and subject to variation in native speaker judgments. One possibility is that the pseudo-incorporated nominals do not create a discourse referent in the strict sense of the term. Rather, anaphoric expressions get their reference through (bridging) inference (cf. e.g. Clark 1977, Prince 1981). This would account for the fact that, depending on the context, the anaphor may be singular or plural. Also, different speakers may find this kind of inference easier or more difficult, which results in variation in judgments.

Alternatively, the mechanism proposed by Krifka & Modarresi (2016) can be adopted, whereby PI bare nominals introduce discourse referents, but (unlike standard non-incorporated objects) do not do so straightforwardly; rather, the relative transparency of bare objects results from certain manipulations in the DRS. The Abstraction & Summation rule is introduced which enables the anaphoric uptake of the discourse referent. For reasons of space we do not expand on this direction here, but see Levy-Forsythe (2018) for a detailed account.

3.2   True Incorporation

The examination of bare nominal+verb constructions reveals that not all of them behave uniformly. Besides main verbs discussed in the previous section, Uzbek has a more limited class of *light verbs* (term due to Jespersen, 1954), i.e. verbs with a weak or bleached semantic content. Cross-linguistically, they form what is known as *light verb constructions* (LVCs), where the meaning of the verb is completed by a nominal (Grimshaw & Mester, 1988; Choi & Wechsler, 2001; Kearns, 2002; Butt, 2003; Karimi-Doostan, 2005; Megerdoomian, 2012). In Uzbek, light verb constructions containing a bare nominal and a light verb seem to display a tight morpho-syntactic interaction. Bare nominals in them (i) have a minimal structure and (ii) exhibit true morpho-syntactic fusion with the verb, which may affect verbal valency.

At the same time, light verb constructions align with the semantic properties of TI: (i) obligatory narrow scope, (ii) number-neutrality, (ii) discourse opacity of the nominal and (iv) strong name-worthiness effect. Below, we propose that the combination of the syntactic and semantic characteristics serves as evidence against their PI and in favor of TI.

3.2.1   Morpho-Syntactic Evidence

In Uzbek, by light verbs we refer to semantically weak verbs such as *qil-* and *et-* ('do', 'make'), *ol-* ('take') or *ber-* ('give'), as well as verbs that appear with bare nominals in idiomatic expressions, such as *qo'l qo'y-* (lit. 'hand-put'- 'sign'), *quloq sol-* (lit. 'ear-put' – 'listen'), *ko'z urishtir-* (lit. 'eye-clash' –'flirt'), etc. Bare nominals in LVCs are deficient in their functional architecture and syntactic status in a clause, compared to both regular and PI objects.

a) *Minimal nominal structure*
Bare nominals in LVCs are completely stripped of any functional layers, i.e. have ***a minimal nominal structure***. They disallow direct adjectival (26a) or RC (26b) modification. As indicated in the translation of (26a), modification concerns the whole incorporating unit and not the bare nominals itself (compare to (8a)). In turn, RC modification is ungrammatical.

(26) a. Anvar **g'oyibona** rasm   soldi
        Anvar secret(ly)   picture put.PST.3SG
        1. 'Anvar drew (a) picture(s) secretly.' (= 'Anvar drew secretly.')
        2. #'Anvar drew (a) secret picture(s).'
   b. *Anvar **hammani   hayratlantir-adi-gan**   rasm   sol-adi
        Anvar everyone.ACC astonish-CAUS-IMPRF.3SG-PTCPL picture put.IMPRF.3SG
        Intended: 'Anvar draws (a) picture(s) that astonish(es) everyone.'

Besides, bare plural nominals are disallowed as complements of light verbs, additionally indicating that the incorporated nominal in LVC is completely bare:

(27) *Ra'no qo'ng'iroq-**lar** qildi
      Rano call-PL   make.PST.3SG
      Intended: 'Rano made phone calls.'

We conclude that bare nominals in LVCs are bare N^0 heads.

b) Syntactic rigidity

The relation between bare nominals and light verbs is tight, as expected between the elements of a TI unit. For instance, a bare nominal in a LVC may not appear as a stand-alone answer to a 'wh'-question, which indicates that it is not a syntactic constituent:

(28) *Q: Anvar nima soldi?   A:***Rasm**
      Anvar what put.PST.3SG   picture
      Intended: 'Q: What did Anvar put? A: (a) picture(s).'

Further, in many instances, it is impossible to omit the light verb under identity (29a), conjoin verbs serving as predicates of the same nominal (29b) and conjoin bare nominals in the preverbal position (29c).

(29) (adapted from Öztürk for Turkish, 2009: 339):
    a. *Anvar **rasm**   emas, quloq **soldi**
       Anvar picture not   ear   put.PST.3SG
       Intended: 'Anvar did not picture-put, he ear-put.' (= 'Anvar didn't draw, he listened.')
    b. *Anvar rasm   soldi   va menga ko'rsatdi
       Anvar picture put.PST.3SG and I.DAT show.PST.3SG
       Intended: 'Anvar drew (a) picture(s) and showed it (them) to me.'
    c. *Anvar **rasm**   va **quloq soldi**
       Anvar picture and ear   put.PST.3SG
       Intended: 'Anvar picture- and ear-put.' (= 'Anvar drew and listened.')

In addition, bare nominals in LVCs are ***strictly verb-adjacent.*** They may not be split from the verb by the focus particle *ham* ('also') (30a)[7], the contrastive focal clitic *-chi* (30b) or focused adverbs of degree (30c):

(30) a. ??Anvar rasm   **ham** soldi
       Anvar picture also put.PST.3SG
       Intended: 'Anvar also drew (a) picture(s).' (= 'Anvar also drew.')
    b. *Anvar qo'ng'iroq-**chi**, qildimi?

---

[7] Under the reading when the whole LVC (and not just a bare nominal) is focused, the insertion of *ham* may be possible. This is parallel to the Tatar focus particle *–gına* reported by Lyutikiva & Pereltsvaig (2015: 309), which attaches to bare nominals within LVCs, but must be interpreted as focusing the entire verbal construction.

        Anvar call-PR   make.PST.3SG.Q
        Intended: 'What about (a) phone call(s), did Anvar make it (them)?'
    c. *Anvar kuzda   sayr **kamdan-kam/ ozgina bo'lsa-da/ jinday** etdi
        Anvar autumn.LOC stroll rarely   a little although briefly make.PST.3SG
        Intended: 'Anvar took (a) stroll(s) rarely/ a little/ briefly in autumn.'

Moreover, such bare nominals exhibit syntactic immobility: they may not be dislocated from the preverbal position to the left and right peripheries of the sentence.

(31) a. Q: Kim g'iybat qildi   va kim quloq osdi?
          Who gossip make.PST.3SG and who ear   hang.PST.3SG
          'Who gossiped and who listened?'
        A: ***G'iybat** Anvar qildi,   **quloq** esa   Ra'no osdi
          Gossip Anvar make.PST.3SG ear   C.T.M Rano hang.PST.3SG
          Intended: 'It was Anvar, who gossiped and Rano who listened.'
    b. *Voy, (men) soldim   **rasm!**
      Hey I   put.PST.1SG picture
      Intended: 'Hey, I did draw (a) picture(s).' (= 'Hey, I did draw.')

Finally, nominal components of LVCs **may lead to a change of verb's valency.** Informally speaking, 'object-doubling' is allowed (cf. ex. (14)). Thus, some LVCs containing bare nominals may take both a full-fledged accusative-marked direct object and a pseudo-incorporated bare nominal (32a), while some may require a dative-marked indirect object (32b).

(32) a. Anvar **manzara(-ni)** tasvir   etdi
        Anvar landscape-ACC depiction make.PST.3SG
        'Anvar depicted (a) landscape(s).'/ 'Anvar depicted the landscape.'
    b. Anvar **rasm-ga**   egalik   etdi
        Anvar picture-DAT ownership make.PST.3SG
        'Anvar owned a picture.'

To sum up thus far, bare nominals in LVCs exhibit syntactic behavior that is characteristic of bare Ns that undergo TI.

3.2.2 Semantic Evidence

Semantically, these nominals, again, exhibit properties that are characteristic of incorporation.

a) *Obligatory narrow scope*
Like bare nominal complements of main verbs, bare nominals in LVCs are indefinite and non-specific and do not allow a wide scope interpretation.

(33) a. Anvar mashq qilishi kerak
        Anvar exercise do.3SG must
        'Anvar must exercise.'

Must > ∃x: Anvar must do some exercise(s) or other.
*∃x > Must: There exist(s) (an) exercise(s) such that Anvar must do it (them).

b) *Number-neutrality*

Bare nominals in LVCs are number-neutral. Thus, (34a) could mean that Anvar did one or more exercises (or more naturally, that Anvar engaged in exercising in general).

(34) Anvar mashq   qildi
        Anvar exercise do.PST.3SG
        'Anvar did (an) exercise(s).'/ 'Anvar exercised.'

c) *Discourse opacity (Atypical anaphora)*

Nominals in LVCs are ***discourse opaque***, i.e. inaccessible for anaphoric uptake (which is typical of TI but not necessary at all in PI).

(35) Anvar **rasm**$_i$ soldi
        Anvar picture put.PST.3SG
        'Anvar drew (a) picture(s).' (= 'Anvar drew.')
   a. *Men **u-ni**$_i$/   **ular-ni**$_i$ tezda sotdim   **(overt pronominal anaphora)**
        I   it-ACC them-ACC quickly sold.PST.1SG
        Intended: 'I sold it/ them quickly.'
   b. *Narx-**i**$_i$/   narx-lar-**i**$_i$ ancha baland **(possessive pronominal anaphora)**
        Price-POSS.3SG price-PL-POSS.3SG quite high
        Intended: 'Its price is quite high.' / Their prices are quite high.'
   c. *Ra'no **Ø**$_i$ sotib   oldi   **(covert anaphora)**
        Rano *pro*$_i$ buy.CVB take.PST.3SG
        Intended: 'Rano bought it (them).'

d) *Name-worthiness*

Name-worthiness is a full-blown characteristic of LVCs. Compared to pseudo-incorporated constructions, LVCs show stronger institutionalization, stricter gaps and high levels of idiomatization.

   For instance, the interpretation of the LVC *ko'z yumdi* (lit. 'eye-closed') in (36a) is idiomatic and refers to passing away, thus denoting an *institutionalized* activity. In contrast, the regular direct object constructions in (36b) lack an institutional reading and must be interpreted non-compositionally.

(36) a. Shoir ko'z yumdi
         Poet eye close.PST.3SG
         'The poet passed away.'
      b. Shoir bitta ko'z(-ni)/ ko'z-ni   yumdi
         Poet one   eye-ACC eye-ACC close.PST.3SG
         'The poet closed an eye/ the eye.' (not 'The poet passed away.')

   Generally, *gaps* in LVCs seem to occur more often and are harder to remedy by contextual manipulations, indicating a higher level of lexicalization. Consider the following examples,

where the first category of combinations is grammatical (37a), and the second category, although quite close in meaning, is ungrammatical (37b).

(37) (adapted from Dayal, 2011: 133):
 a. mehnat qilmoq; bola koʻrmoq; qiz uzatmoq;   qovun tushirmoq
   labor-make   child-see   daughter-pass   melon-drop
   'work'   'give birth'   'marrying off (a) daughter(s)' 'make (a) blunder(s)'
 b. *mashaqqat qilmoq; *ayol koʻrmoq; *oʻgʻil uzatmoq; *tarvuz tushirmoq
    hardship-make   woman-see   son-pass   watermelon-drop

Based on the syntactic and semantic facts discussed above we propose that bare nominals in light verb constructions undergo true incorporation in Uzbek. In other words, this language exhibits both TI and PI, depending on the type of verb involved. We leave for future research the question of whether the incorporation takes place in the lexicon or in the syntax.

4 Conclusion

Uzbek facts reveal that a given language may exhibit instances of **both true incorporation and pseudo-incorporation**, depending on the type of the verb involved.

- Bare nominal components of LVCs are truly incorporated.

The "object" is an N^0 head which does not project its own phrase; rather, the N-V string is treated by the syntax as a V head.

- Bare nominal complements of other, main, verbs are pseudo-incorporated.

The object is a NP which is merged in the complement position and combines with the V to form a VP. Semantically, we follow Chung & Ladusaw's (2004) approach, whereby a property-denoting bare nominal and the verbal predicate are combined via the RESTRICT function.

References

Arslan-Kechriotis, C. 2006. *Case as an uninterpretable feature.* Ph. D. thesis, Boğaziçi University.

Aydemir, Y. 2004. Are Turkish Preverbal Bare Nouns Syntactic Arguments? *Linguistic Inquiry, 35 (3)*, 465–474.

Baker, M. 1988. *Incorporation: A Theory of Grammatical Function Changing.* Chicago: University of Chicago Press.

Baker, M. 2006. Noun Incorporation in Mapudungun. *Paper presented at the Noun Incorporation and its Kind Conference.* University of Ottawa, Canada.

Baker, M. 2014. Pseudo noun incorporation as covert incorporation: linearization and crosslinguistic variation. *Language and Linguistics, 15*, 5-46.

Bittner, M. 1994. *Case, Scope, and Binding.* Dordrecht: Kluwer.

Bliss, H. 2004. The Semantics of the Bare Noun in Turkish. *Calgary Papers in Linguistics*, *25 (1).*

Borik O., & Gehrke B. 2015. *The Syntax and Semantics of Pseudo-Incorporation.* Leiden, Netherlands: Brill Academic Publishers.

Bošković, Ž. & Şener, S. 2014. The Turkish NP. (P. C. Hofherr, & A. Zribi-Hertz, Eds.) *Crosslinguistic studies on noun phrase structure and reference*, 102-140.

Butt, M. 2003. The light verb jungle. Harvard Working Papers in Linguistics. *Harvard Working Papers in Linguistics, 9*, 1-49.

Choi, I. & Wechsler, S. 2001. Mixed Categories and Argument Transfer in the Korean Light Verb Construction. *Proceedings of the 8th International Conference on Head-Driven Phrase Structure Grammar, 103-120.*

Dayal, V. 2003. A semantics for pseudo incorporation. Ms., Rutgers University.

Chung, S. & Ladusaw, W. 2004. *Restriction and Saturation.* Cambridge, MA: MIT Press.

Dayal, V. 2011. Hindi pseudo-incorporation. *Natural Language and Linguistic, 29*, 123-167.

Dayal, V. 2015. Incorporation: morphosyntactic vs. semantic considerations. (O. Borik, & B. Gehrke, Eds.) 189-221.

di Sciullo, A. M. & Williams, E. 1987. *On the Definition of Word.* Cambridge, MA: MIT Press.

Dobrovie-Sorin, C., Bleam T. & Espinal T. M. 2006. Bare nouns, number and types of incorporation. (L. Tasmowski, & S. Vogeleer, Eds.) *Non-definiteness and plurality*, 51-79.

Espinal, M. T. & McNally, L. 2011. Bare nominals and incorporating verbs in Spanish and Catalan. *Journal of Linguistics, 47*, 87-128.

Farkas, D. & de Swart, H. 2003. *The Semantics of Incorporation: From Argument Structure to Discourse Transparency.* Stanford, CA: Stanford University.

van Geenhoven, V. 1996. *Semantic Incorporation and indefinite descriptions: Semantic and syntactic aspects of West Greenlandic noun incorporation*. Ph.D. dissertation, Universitat Tübingen.

van Geenhoven, V. 1998. *Semantic Incorporation and Indefinite Descriptions: Semantic and Syntactic Aspects of Noun Incorporation in West Greenlandic.* Stanford, CA: CSLI Publications.

Grimshaw, J. & Mester, A. 1988. Light verbs and theta-marking. *Linguistic Inquiry, 19*, 205-232.

Guntsetseg, D., von Heusinger, K., Klein, U., Niyazmetowa, D. 2008. Differential object marking in Mongolian and Uzbek. *SFB 732 presentation.* Stuttgart.

Haugen, J. 2008. *Morphology at the Interfaces: Reduplication and Noun Incorporation in Uto-Aztecan.* Amsterdam/Philadelphia: Benjamins.

von Heusinger, K. & Klein, U. 2013. The Distribution of two Indefinite Articles. In C. Ebert, & S. Hinterwimmer, *Different kinds of specificity across languages* (Vol. 92, pp. 155-176). Dordrecht: Springer.

von Heusinger, K. & Kornfilt, J. 2017. Partitivity and case marking in Turkish and related languages. *Glossa: a journal of general linguistics, 2 (1): 20*, 1-40.

von Heusinger, K., Klein, U., Niyazmetowa, D. 2008. Transitivity and the diachronic development of differential. *Workshop on Transitivity and case alternations.* Stuttgart.

von Humboldt, W. [1836] 1999. *On Language: On the Diversity of Human Language Construction and its Influence on the Mental Development of the Human Species.* (M. Losonsky, Ed., & P. Heath, Trans.) Cambridge University Press.

Kagan, O. 2005. Genitive case: a modal account. *Proceedings of Israel Association for Theoretical Linguistics (IATL) 21.*

Kagan, O. 2012. *Semantics of Genitive Objects in Russian: A Study of Genitive of Negation and Intensional Genitive Case.* Dordrecht: Springer.

Kagan, O. 2015. *Scalarity in the Verbal Domain: The Case of Verbal Prefixation in Russian.* Cambridge University Press.

Kamali, B. 2015. Caseless direct objects in Turkish revisited. (A. Meinunger, Ed.) *Byproducts and side effects: Nebenprodukte und Nebeneffekte (ZAS Papers in Linguistics 58)*, 107–123.

Karimi-Doostan, G. 2005. Light verbs and structural case. *Lingua, 115*, 1737–1756.

Kearns, K. 2002. *Light verbs in English.* Unpublished manuscript, MIT/University of Canterbury.

Knecht, E. L. 1986. *Subject and object in Turkish.* Ph.D. thesis, MIT.

Kornfilt, J. 1997. *Turkish.* London/New York: Routledge.

Kornfilt, J. 2003. Scrambling, subscrambling and case in Turkish, word order and scrambling. In S. Karimi (Ed.), *Word Order and Scrambling* (pp. 125-155). Blackwell, Oxford.

Krifka, M. & Modarresi, F. 2016. Number neutrality and anaphoric update of pseudo-incorporated nominals in Persian (and weak definites in English). *Proceedings of Semantics and Linguistic Theory (SALT) 26.*

Kroeber, A. 1909. Noun Incorporation in American Languages. *XVI Internationaler Amerikanisten-Kongress*, 569-576.

Kroeber, A. 1911. Incorporation as a linguistic process. *American Anthropologist, 13*, 577-584.

Levy-Forsythe, Z. 2018. *Object Incorporation in Uzbek*. M.A. thesis, Ben-Gurion University of the Negev.

Lewis, G. L. 1967. *Turkish grammar.* Great Britain: Oxford University Press.

Lyutikova, E. & Pereltsvaig, A. (2015). The Tatar DP. *The Canadian Journal of Linguistics / La revue canadienne de linguistique, 60 (3)*, 289-325.

Massam, D. 2001. Pseudo noun incorporation in Niuean. *Natural Language and Linguistic Theory, 19*, 153-197.

Megerdoomian, K. 2012. The status of the nominal in Persian complex predicates . *Natural Language and Linguistic Theory, 30*(1), 179-216.

Mithun, M. 1984. The evolution of noun incorporation. *Language, 60*, 847-895.

Modarresi, F. & Simonenko, A. 2007. Quasi noun incorporation in Persian. *Proceedings of LingO.*

Modarresi, F. 2014. *Bare nouns in Persian: Interpretation, Grammar, and Prosody.* Ph.D. thesis, Humboldt Universität zu Berlin.

Öztürk, B. 2005. *Case, referentiality and phrase structure. Amsterdam, Philadelphia.* Amsterdam, Philadelphia: John Benjamins.

Öztürk, B. 2009. Incorporating agents. *Lingua, 119*, 334-358.

Rosen, S. 1989. Two types of noun incorporation: a lexical analysis. *Language*, 294-317.

Sadock, J. 1980. Noun incorporation in Greenlandic. *Language, 56*, 300-319.

Sadock, J. 1985. Autolexical syntax: a proposal for the treatment of noun incorporation and similar phenomena. *Natural Language and Linguistic Theory, 3*, 379-440.

Sapir, E. 1911. The problem of noun incorporation in American languages. *American Anthropologist, 13*, 250-282.

Yanovich, I. 2008. Incorporated nominals as antecedents of anaphora, or how to save the thematic arguments theory. *University of Pennsylvania Working Papers in Linguistics, 14*, 367-379.