It is commonly assumed that a verb with a cognate object is basically intransitive. This paper argues that in Vietnamese, there are two types of cognate objects: one is comprised of direct cognate objects, the other of indirect cognate objects. The two types occupy two different positions in transitive verbs and behave differently from each other. The positing of indirect cognate objects correctly predicts that (i) in a ditransitive verb, a cognate object cannot occur if there are already two regular objects; (ii) Vietnamese cognate objects can occur with unaccusative verbs and behave differently with unergative verbs. The paper provides new evidence for the claim that cognate objects are arguments, and shows that cognate objects can also be indirect objects.

In the literature, cognate object constructions such as those in (1) have been treated either as adjuncts (Jones 1988, Moltmann 1990) or as arguments (Massam 1990, Macfarland 1992). See Jones (1988) and Massam (1990) for an overview of the debate.

1. a. John died a peaceful death.
   b. Marie sighed a long sigh.

   It is commonly assumed that a verb with a cognate object (CO) is basically intransitive (e.g., verbs such as “sneeze, jump, laugh” which have external arguments) and the COs are defined as elements which occur in the direct object position (Jones 1987). However, the above assumption and definition do not cover all CO constructions in Vietnamese. In this language, COs seem to be more complicated than assumed in the literature. In Vietnamese, besides appearing with intransitive verbs as in (2a), COs can also occur with transitive verbs either in the direct object (DO) position (2b), or along with another object (2c, d).

2. a. No cuoi [nu cuoi khieukhich].
    ‘He smiles a provocative smile.’

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* I would like to thank the audience of the Department of Linguistics workshop, University of Toronto (November 1997) for their discussions, especially to Diane Massam for her extensive comments and advice.

1 All data are written in Vietnamese orthography with tones omitted. The two-morpheme words do not have a space in between the morphemes. CO constructions are bracketed. The English translations are given only to help the reader and are not intended to be fully acceptable English sentences.
In this paper, I examine the COs in the sentences above and show that the CO in (2b, c) occurs in the DO position while the CO in (2d) occurs in the indirect object (IO) position. Indirect COs of this type have never been mentioned in the literature. My goal, therefore, is two-fold: (i) to give new evidence for the view that COs are arguments, and (ii) to demonstrate that COs can also be indirect objects. I focus only on the syntactic properties of COs.

In the following section I provide some background about the cognate prepositional phrases discussed in Levin (1993) and argue that they differ from COs of type (2d). Section 2 presents some characteristics and syntactic properties first of the COs which behave like structural direct objects and second of those which behave like indirect objects. Section 3 presents the lexical representation of transitive verbs with CO constructions.

Section 4 explores some implications of the claim that COs can occur as IOs. The conclusion is in section 5.

1. Transitive verbs and cognate prepositional phrases

Levin (1993) mentions cases in English where a CO co-occurs with a direct object. In this construction, COs must occur in prepositional phrases; thus they are called Cognate Prepositional Phrases (CPP). The preposition in most cases is “with”. In (3) the star or question mark value for each sentence is taken from Levin.

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2 In this paper I restrict myself to these sentences. I am not concerned with the following set of sentences in which COs are the second NP (a, c) or the first NP (b).

a. Hien gap cho Ti [mot gap (rau)].
   'Hien picks a pick of vegetables'.

b. Hien kinhtrong (voi) [mot su kinhtrong dacbiet] doivoi cha.
   'Hien respects (with) a special respect toward father'.

c. Ti da Hien [mot da].
   'Ti kicked Hien a kick'.

It is still not clear how Case assignment works in Vietnamese in the framework of Government-Binding theory (for example, an adverb can freely occur between a verb and its DO in Vietnamese). The sentences above involve complicated operations with prepositions which deserve further research.
3. a. Kelly buttered the bread [with unsalted butter].
   * Kelly buttered the bread [with butter].
   b. Linda taped the box [with two-sided tape].
   ? Linda taped the box [with tape].
   c. The men were able to mine more gold [from the abandoned mine].

Similar constructions are also found in Vietnamese in verbs such as

\textit{nuom} (dye), \textit{son} (paint), \textit{muoi} (salt, pickle), \textit{rao} (fence), \textit{quat} (fan), \textit{thuoc} (poison, drug),
\textit{khuon} (cast), \textit{khoan} (drill), \textit{sang} (winnow), \textit{ghim} (pin), \textit{cua} (saw), \textit{duc} (chisel), \textit{bao}
(plane “wood”), \textit{moc} (hook), \textit{mac} (hang up), \textit{du} (swing).

4. a. Hien muoi ca [bang muoi tho].
   Hien salt eggplant with salt coarse
   ‘Hien salted eggplants with kitchen salt.’
   b. Ti son tuong [bang son trang].
   Ti paint wall with paint white
   ‘Ti painted the wall with white paint.’
   c. Ti du [o cai du sau nha].
   Ti swing on class swing behind house
   ‘Ti is swinging on the swing in the backyard.’

The COs in (3) and (4) share certain properties: they must occur in a
preposition phrase (PP); they need modifiers to be most acceptable; and they usually
 denote an instrument or location.

However, there are some differences between the COs in CPPs and the type of
COs in (2d). First, the COs of type (2d) do not need to occur in PPs. Second and
most significant, they do not exist as entities which are independent of the action as
in (3) and (4), but rather, they are the results of the action of the agent, i.e. For
instance, “a special respect” is created by the action of respecting, but “the unsalted
butter” is not created by the action of buttering, nor is “a swing” created by the
action of swinging. If we assume that COs arise through the process of lexical
subordination (Massam:1990) and therefore assume that the agent x creates an event
of [x verb] by means of doing it, then the COs of type (2d) are cognate objects while
those in the CPPs are not. Therefore, indirect cognate objects and CPPs are not the
same kind of entity.

2. Cognate objects in transitive verbs

2.1 Theoretical assumptions

In this paper I assume that a direct object is an NP which receives its theta-role
directly from the verb. An indirect object is an NP which is assigned a theta-role
indirectly through a preposition, which can optionally be overt (i.e. it might be
phonetically realized or might not, but it exists in the D-structure. Following Massam (1990), I assume that CO constructions such as those in (1) have direct objects which receive a Patient theta-role from the verb. Given the assumption that when the verb is intransitive, the empty category is interpreted as a null CO (Doborovie-Sorin:1994), we can say that the CO is present in the lexical structure of an intransitive verb. The syntactic structure of these intransitive verbs is similar to that of a simple transitive verb (Hale&Kayser:1993) as in (5).

5. Syntactic structure of intransitive verbs

\[ V' \]
\[ \text{V} \]
\[ \text{NP} \]

I also adopt Larson's (1988) D-structure of a ditransitive verb. In (6) this structure is illustrated with the verb “put”.

6. VP

\[ \text{SpecV'} \]
\[ \text{V'} \]
\[ \text{V} \]
\[ \text{e} \]
\[ \text{NP}_1 \]
\[ \text{V'} \]
\[ \text{VP} \]
\[ \text{PP} \]
\[ \text{NP}_2 \]
\[ \text{put} \]
\[ \text{on} \]
\[ \text{the} \]
\[ \text{shelf} \]

The surface structure is derived by the movement of the verb up to the Spec of the lower VP. The DO position is the Spec of V’ (book), and the PP, which consists of an IO (shelf), is the sister of V. In this paper, I assume that a direct object is a single internal argument of a verb, such as the NP in (5), or the first NP in a ditransitive verb, such as the NP$_1$ in (6), i.e. ‘a book’. I also assume that an indirect object is the second NP of a ditransitive verb, such as the NP$_2$ in (6), i.e. ‘the shelf’.

In the next sections I will show that the verb in (2b) has the structure of (5), and the verbs in (2d) have the structure of (6).

2.2 Characteristics of verb classes

In this section I examine two types of cognate objects in Vietnamese. The one which occupies the DO position is called a direct cognate object (DCO), and the other which occupies the IO position is called an indirect cognate object (ICO). Let us look at the characteristics of the verb classes found with each type.
2.2.1 Verb class with direct COs

There are two groups in this type. One group is represented by *gap* (pick up something by means of chopsticks) and another group is represented by *da* (kick). In the former, the CO occurs as a single internal argument; in the latter, the CO occurs as a first NP in a ditransitive verb.

2.2.1.1 The 'gap' group

This group includes verbs which in turn, fall into two subcategories to be explained below. The first subgroup contains verbs for which the contextual direct object (i.e. a direct object which, instead of the CO, occurs as a single argument of a transitive verb (e.g. *cui* 'fire wood' in *Ti bo cui* ’Ti bundled fire wood’) and the CO can form a compound. Verbs in the second group cannot form a compound.

Verbs appearing with COs which can form a compound: e.g. *muc* (ladle), *vot* (fish up, out), *quet* (sweep), *cuoc* (hoe), *cao* (rake up), *xoi* (turn over), *dong* (measure out), *sand* (winnow, select carefully), *xit* (spray), *chan* (wet, moisten rice with soup), *lua* (drive, sweep), *va* (shove rive into one’s mouth with chopsticks), *ganh* (carry by means of a flail across one’s shoulder), *chuom* (apply), *coi* (poke up the fire), *ruoi* (sprinkle), *vat* (squeeze), *cham* (dip), *diem* (mark), *can* (balance), *boi* (smear), *chat* (drain off, press out), *gom* (collect), *bo* (bundle), *luom* (pick up from the ground), *vo* (roll), *kheu* pick, reach for something with a stick), *mom* (chew food and feed her baby from mouth to mouth), *vuot* (stroke), *boc* (pick up with one’s fingers), *vo* (crumple), *phong* (throw, fling), *xoc* (shake), etc.


Some more data are given in (7).

7. a. No bo [mot bo (cui)].
   he bundle a bundle (firewood)
   ’He bundles a bundle of firewood’.

   b. Ti quan [mot quan (thuoc)].
   Ti roll a roll (cigarette)
   ’Ti rolled a roll of cigarette’.

   c. Hien voc [mot voc (nuoc)].
   Hien draw a draw (water)
   ’Hien drew a handful of water’.

Direct objects of this verb class are usually uncountable nouns, e.g. *cui* (firewood), *nuoc* (water).

8. a. No bo cui.
   ’He bundles firewood’.

   b. Hien voc nuoc.
   ’Hien drew water’.
Each verb usually has selectional restrictions, i.e. specific semantic properties are required of the direct internal argument. The meaning, therefore, is partially predictable for each verb. For example, one usually draws (muc) something which is liquid such as water, soup, etc.

In the CO construction, the CO of verbs in the first subgroup can take the contextual direct object (e.g. “firewood” in (9a) ) as its modifier. With the modifier, the CO can form a compound in which the CO is the head. For example, mot bo + cui in (9a) is a possible compound in Vietnamese. In this case, the CO is a measuring unit. The COs of this verb class are able to express some quantity or a kind of container. For example, one can imply a certain limit to the food which can be held by a pair of chopsticks (mot gap ‘a pick’) or of water which can be taken in the palms of one’s hands ( mot voc ‘a handful of water’).

If the CO fails to compound with the contextual direct object (i.e. as in the second group), the direct object position is occupied by either the CO (9b) or the contextual DO (9a), but not both (9c).

   Ti chop firewood
   ‘Ti chops firewood into pieces.’

   b. Ti bo [mot bo].
   Ti chop a chop
   ‘Ti chops a chop.’

   c. *Ti bo [mot bo (cui)].
   Ti chop a chop (firewood)
   ‘Ti chops a chop of firewood.’

If we compare (7a) and (9c), the former is grammatical but the latter is not, although both verbs take an uncountable direct object. This is because ‘a chop of firewood’ is not a possible compound. Verbs such as bo (chop) do not refer to quantity. The COs of those verbs just created by the action, such as ‘a cutting, a chopping, a tasting’. However, one can also count how many times the action is done, e.g. ‘Ti chops one chop, two chops, etc.’. Therefore, a CO of this type still acts as a delimiter, which measures out the event described in the verb, a property of COs claimed in Massam (1990) and Macfarland (1992).

In summary, verbs which have COs occurring only as a single argument represented by gap (pick) are divided into two subgroups. Verbs in the first subgroup can form a compound while those in the second subgroup can not. Regular DOs of this verb group are usually mass nouns.

2.2.1.2 The ‘da’ group
A CO of a verb in this group can occur either as a single argument (10b) or as the first NP (10c) in a ditransitive verb, i.e. a verb which has two internal arguments.

10. a. Ti da toi.
    Ti kick me
    ‘Ti kicked me.’
b. Ti da [mot da].
   Ti kick a kick
   'Ti kicked a kick.'
   Ti kick a kick on me
   'Ti kicked me a kick.'

Verbs of this group usually involve physical movement of instruments, which can be either body parts or physical objects towards someone or something: e.g., da (kick), dam (punch), thui (punch), dap (trample on, set foot on), cao (scratch), cau (pinch, nip), nen (beat), quai (beat), can (bite), danh (hit), bop (squeeze), chup (catch), vo (grab), tat (slap), nhay (blink, wink), nguyt (look askance, look black on), luom (scowl on, look askance), vay (wave), vuot (stroke, fondle), ngu (smell), liem (lick), hon (kiss), cu (tickle), chich (sting, prick), bua (hammer), bo (rive, chop), dam (stab through), thoc (plunge, thrust, poke), phang (strike with a stick), quat (strike), hat (thrust away, fling off), lac (shake), etc.

Verbs of this group usually have a countable contextual direct object. Notice that the second subgroup of the gap group, (i.e. verbs in which the CO and contextual DO cannot form a compound as mentioned in 3.2.1.1) belongs to the da subgroup when the verb takes a countable DO. (9) is repeated here as (11).

11. a. Ti bo cui.
   Ti chop firewood
   'Ti chops firewood.'
b. Ti bo [mot bo].
   chop a chop
   'Ti chops a chop.'
c. *Ti bo [mot bo + cui].
   chop a chop firewood
   'Ti chops a chop of firewood.'
d. *Ti bo cui [mot bo].
   chop firewood a chop
   'Ti chops firewood a chop.'
   chop a chop on fire wood
   'Ti chops a chop on firewood.'

12. a. Ti bo khuc cui.
   chop class fire wood
   'Ti chops a chop on a piece of firewood.'
b. Ti bo [mot bo].
   'Ti chops a chop.'
   chop a chop on class firewood
   'Ti chops a chop on a piece of firewood.'

(11) and (12) have the same verb (chop) and the same object (fire wood), but bo in (11) belongs to the first group gap (pick), i.e. the class of verbs for which a CO can occur only as a single argument as in (3.2.1.1), while bo in (12) belongs to the
second group \textit{da} (kick), i.e. the class of verbs for which the CO can occur either as a single argument or as a second object (as in 3.2.1.2). The only difference between (11) and (12) is that the object is non countable in the former, but countable in the latter (a piece of fire wood). When the CO occurs as a DO, the contextual DO (e.g. fire wood) can occur as a second object only when it refers to a countable object (12c). A mass noun (e.g. fire wood) never occurs in a sentence with a CO construction, either in the DO position, i.e. the first NP, as in (11d) or in the IO position, i.e. the second NP, as in (11e). From this fact, we see that countability seems to be an important factor in classifying verbs with COs. In the second group represented by \textit{da} (kick), the regular DOs of verbs are usually countable nouns, which along with a CO cannot form a compound as in (11c). In this group, a contextual DO can occur only as a second NP and is interpreted as a countable noun as in (12c).

In sum, I have introduced the first class of verbs in which COs occur in a DO position. This class consists of two groups. In the first group, a CO usually occurs as a single argument. In the second group, a CO can occur as either a single argument or the first NP of a ditransitive verb.

\subsection*{2.2.2 Verb class with indirect COs}

The verb class represented by \textit{kinhtrong} (respect) takes a CO as the indirect object. This class consists of verbs of perception, emotional actions, and mental attitude, e.g., \textit{yeu} (love), \textit{giupdo} (help, support), \textit{thathu} (forgive), \textit{thuong} (reward), \textit{phat} (punish), \textit{tontho} (worship), \textit{nguonmo} (admire), \textit{batchuoc} (imitate), \textit{xinloi} (apologize), \textit{chao} (greet), \textit{chaodon} (welcome), \textit{chucmung} (congratulate), \textit{camon} (thank), \textit{khengo} (praise), \textit{khichle} (encourage), \textit{cauxin} (ask for), \textit{lamnhuc} (humiliate), \textit{chenhao} (tease), \textit{phebinh} (criticize), \textit{chitrich} (criticize), \textit{tratan} (torture), \textit{day} (teach), \textit{thamvieng} (visit), \textit{chucmung} (congratulate), \textit{thu} (hate), \textit{kinhmen} (respect), etc.

Unlike verbs represented by “pick”, COs of this verb class usually need modifiers to be acceptable.

\begin{enumerate}
\item a. \text{Toi nho Hien (voi) [mot noinho sausac].}
\text{I miss Hien (with) a miss deep}
\text{‘I missed Hien a deep miss.’}
\item b. *\text{Toi nho Hien [mot noinho].}
\item a. \text{Ti phebinh toi [mot su phebinh gaygat].}
\text{Ti criticize me a class criticism sharp}
\text{‘Ti criticized me a sharp criticism.’}
\item b. *\text{Ti phebinh toi [mot su phebinh].}
\item a. \text{Ho chaodon nha nghesi [mot su chaodon nongnhiet].}
\text{They welcome class actor a class welcoming warm}
\text{‘They gave a warm welcome to the actor.’}
\item b. *\text{Ho chaodon nha nghesi [mot su chaodon].}
\end{enumerate}

The CO constructions in these sentences can optionally occur with a P \textit{voi/bang} (with).

In this section, I have shown COs of this verb class occur in the IO position. They usually need modifiers but a preposition is not obligatory. In the next section,
I show that COs in the two verb classes in 2.2.1 and 2.2.2 behave differently from each other syntactically.

### 2.3 Syntactic behavior of direct COs and indirect COs

COs in the two classes of verbs exhibit different syntactic properties. COs of verb type 1 (pick), i.e. direct COs, display many properties which are said to belong to direct objects, but COs of verb type 2 (respect), i.e. indirect COs, do not. Some verbs of each class are used to illustrate each different behaviour.

First, a direct CO can occur as a single argument (16a, b, c) while an indirect CO cannot (16d, e).

16. a. Hien gap [mot gap].
   Hien pick a pick
   'Hien picked a pick.'

   b. Ti bo [mot bo].
   Ti bundle a bundle
   'Ti bundled a bundle.'

   c. Ti đa [mot đa].
   Ti kick a kick
   'Ti kicked a kick.'

   d. * Hien kinhtrong [mot su kinhtrong].
      Hien respect a class respect
      'Hien respects a respect.'

   e. * No phebinh [mot su phebinh].
      He criticize a class criticism
      'He criticized a criticizm.'

Second, a direct CO allows passivization (17a, b, c) while an indirect CO does not (17d, e).

17. a. [Mot gap] duoc (Hien) gap.
    a pick pass Hien pick
    'A pick was picked (by Hien).'

   b. [Mot bo] duoc (Ti) bo.
    a bundle pass Ti bundle
    'A bundle was bundled (by Ti).' 

   c. [Mot đa] duoc (Ti) đa (vao toi).
    a kick pass Ti kick on me
    'A kick was kicked (on me) (by Ti).' 

   d. *[Mot su kinhtrong dacbiet] duoc (Hien) kinhtrong.
    a class respect special pass Hien respect
    'A special respect was respected (by Hien).'

   e. *[Mot su phebinh gaygat] duoc (no) phebinh.
    a class criticism sharp pass he criticize
    'A sharp criticizm was criticized (by him).'
As in English, the underlying subjects, e.g. Hien, Ti, optionally occur in the passive construction. And just like many other regular IOs (if we put aside pseudo-passives), indirect COs do not allow passivization, e.g. Hien dat cuon sach len gia 'Hien put a book on the shelf', cf. *Gia duoc dat 'The shelf was put (on)'.

Third, a direct CO can be used in the middle construction (18a, b, c), but an indirect CO cannot (18d, e). In this construction the surface subject is derived from a deep object with some adverbial modification provided by the adverb de (easily).

   a pick pick easily
   'A pick is easily picked.'

b. [Mot bo] bo de.
   a chop chop easily
   'A chop is easily chopped.'

   a kick kick easily
   'A kick is easily kicked.'

d. *[Mot su kinhtrong dacbiet] kinhtrong de.
   a class respect special respect easily
   'A special respect is easily respected.'

e. *[Mot su thathu] thathu de.
   a class forgiveness forgive easily
   'A forgiveness is easily forgiven.'

In the Vietnamese middle construction, direct COs can also occur with the light verb lam (do) (19a, b), while an indirect CO cannot (19d, e).

19. a. Ti lam [mot bo].
   Ti do a bundle
   'Ti did a bundle.'

b. Ti lam [mot da].
   Ti do a kick
   'Ti did a kick.'

c. *Hien lam [mot su kinhtrong dacbiet].
   Hien do a class respect special
   'Hien did a special respect.'

d. *Ti lam [mot su thathu dedai].
   Ti do an class forgiveness easy
   'Ti did an easy forgiveness.'

If “transitive verbs that can undergo middle formation are those whose s-syntactic object is an affected argument” (Hale & Keyser:1993), direct COs are probably affected arguments but indirect COs are not. Again, like many other regular IOs, indirect COs can not be used in a middle construction (e.g. No gui cuon sach cho Mary 'He sent the book to Mary', cf. *Mary gui de 'Mary sends easily', i.e. It is easy to send things to Mary).

Fourth, although not as freely as with a regular DO, it is still possible to question a direct CO, but not an indirect CO.
20. a. Q: Ti bo cai gi?
   Ti bundle what
   'What did Ti bundle?'
A: Ti bo [mot bo (cui)]
   Ti bundle a bundle (firewood)
   'Ti bundled a bundle (of firewood)'
b. *Hien kinhtrong cha cai gi?
   Hien respect father what
   'What did Hien respect her father?'

   It seems that the DCO can be questioned because it has a modifier which is the contextual object (fire wood); therefore, it is not “a bundle” but “fire wood” to be questioned. However, even if the modifier is not a contextual object but an adjective (21b), the CO still can be a reasonable answer.

   b. Hien gap [mot gap lon] 'Hien picked a big pick.'
   c. Hien gap [mot gap rau] 'Hien picked a pick of vegetables.'

   In (21) the three sentences have a CO construction in direct object position with the information increasing from (21a) to (21c). The more information is given, the more satisfying is the answer. For the question Hien gap cai gi? (What did Hien pick?), (21b) and (21c) give enough information which (21a) fails to do, because in (21a) the DO is a CO which just takes over the lexical content of the verb. (21b) is a satisfactory answer when the speaker and the hearer share the contextual DO (vegetables), or when the questioned information is not what kind of food Hien picked, but how big the pick was (in the context, for example, that people are describing one’s character by the way he/she eats).

   The fact that (21b) does not need to specify ‘vegetables’ suggests that a CO also has a certain degree of questionability, which is independent of the meaning of the contextual direct object. An indirect CO, however, can never be questioned with cai gi (what), but only with nhuthenao (how).

   Fifth, a direct CO cannot co-occur with another DO, but an indirect CO can.

22. a. *Ti bo cui [mot bo].
   Ti bundle firewood a bundle
   'Ti bundled a bundle of firewood.'
   b. Hien giupdo toi [mot su giupdo tantinh].
   Hien help me a class help devoted
   'Hien helped me a devoted help.'

   When the DO position is occupied by a regular object, the direct CO cannot occur as in (22a) while the indirect CO can as in (22b).

   Finally, direct COs can occur with certain Quantifiers such as tung (every), nhung (Det, plural), may/baonhieu (how many), with the indefinite pronoun ai do (someone), or with the perfective xong (already) as in (23). An indirect CO cannot occur with these words as in (24).
23. a. Hien gap tung [gap].  
   'Hien picked every pick.'  
b. Hien bo nhung [bo lon].  
   bundle pl bundle big  
   'Hien bundled big bundles.'  
c. Hien cuoc may [cuoc]?  
   hoe how many hoe  
   'How many hoes did Hien hoe?'  
d. Ti d a [tung (nhung) d a manh] (vao toi).  
   kick every some strong kick on me  
   'Ti kicked every (some) strong kick (on me).'  
e. Ai do bo [mot bo].  
   someone that chop a chop  
   'Someone chopped a chop.'  
f. Cau be muc xong [mot muc].  
   a boy ladle already a ladle  
   'The boy already ladled a ladle.'  

24. a. *Ti phebinh toi tung [su phebinh gaygat].  
   criticize me every class criticism sharp  
   'Ti criticized me every sharp criticism.'  
b. *Ti kinhtrong cha nhung [su kinhtrong dacbiet].  
   respect father pl class respect special  
   'Ti respects his father special respects.'  
c. *Anh giupdo ho baonhieu [su giupdo tantinh]?  
   You help them how many class help devoted  
   'How many devoted supports did you help them?'  
d. *Ai do nguongmo me [su nguongmo tuyetdoi].  
   someone that admire mother class admire absolute  
   'Someone admires his mother an absolute admire.'  
e. *Co gai da thathu changtrai xong [mot su thathu lanhnhat].  
   a girl past forgive a man already a class forgiveness frigid  
   'The girl already forgave the man a cold forgiveness.'  

While the indirect COs of type 2 (respect) do not need to occur in a PP as shown in (13a), the regular IO of the second group of type 1 (kick) always needs a preposition to be acceptable as shown in (25).  

   Ti kick a kick me  
   'Ti kicked a kick to me.'  

The second object of verb type 1 (e.g. ‘me’ in 25) is always a measurable object, which obligatorily occurs in a PP.  

To sum up, I have examined two types of COs in transitive verbs. In the first one, a CO is a single argument which occupies the direct object position, and functions as a regular DO. In the second type, a CO occurs as a second object occupying the IO position, and functions as a regular IO. There are two subgroups
in the first type: verbs with COs which can only occupy a DO position; and those with COs which also occupy the DO position, but can be either a single argument or a first NP in a ditransitive verb. An IO can optionally take a P if it is a CO (type 2) but it must have a P if it is a regular object (as the *kick* group of type 1).

To conclude this section, a direct CO exhibits the properties of the regular DO, properties which are not found with an indirect CO. For example, a direct CO can occur as a single internal argument, it allows passivization, middle construction, and questionability to a certain degree. It can also occur with (certain) Quantifiers, the indefinite pronoun and the perfective particle. The fact that an indirect CO does not share these properties shows that the two types of COs occupy two different positions in the syntactic structure. Furthermore, the fact that a direct CO cannot appear when there is already a direct object present but an indirect one can suggests that the former occupies the direct object position while the latter does not.

From these observations I assume that the COs of type *gap* (pick) are direct cognate objects, while the COs of type *kinhtrong* (respect) are indirect cognate objects.

In the next section, I present the lexical representation of transitive verbs with COs.

### 3. Lexical representation of transitive verbs with COs

Following Rappaport & Levin (1988) and Massam (1990), I assume that COs arise from the process of lexical subordination which operates at the level of lexical conceptual structure (LCS). This process takes the LCS of a verb and changes it to another LCS. In Vietnamese, the process includes lexical co-reference between the action and the result of the action.

All verbs of type 1 (pick) can be used as intransitives. The intransitive form can be obtained by a lexical rule which changes a transitive verb into an intransitive verb as in (26).

   Hien pick vegetables
   'Hien picked vegetables.' 'Hien picked.'

The transitivizing operation then derives a CO construction from an intransitive verb as it does in, for example, ‘He slept a sleep’. The derived LCS of verb type 1 (27b) is illustrated by the sentence (27a).

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3 It is not clear why CO operation cannot apply to transitive verb, e.g. ‘pick’. I assume the answer lies in the lexical semantics of the two groups (actions verbs vs psych verbs).
27. a. Hien gap [mot gap].
   'Hien picked a pick.'

   b. [x cause [yi become exist]] by [x verb]i
   Hien caused the event [Hien pick] to exist by means of Hien picked.

   This LCS maps to a Predicate Argument Structure (PAS) as in (28) where the x variable will be satisfied by predication in the syntax as in Massam (1990), and the y variable (CO) is mapped to the internal argument position (DO).

28. verb y

   y can be either a regular DO as in (26) or a CO (27a). The deep structure of (28) is represented in (29).

29. VP
    V
    NP

   In this structure, the CO receives both theta-role and Case directly from the verb, just like a regular DO.

   Similarly, the LCS of verb type 2 (respect) is (30b) which is illustrated by (30a).

30. a. Hien kinhtrong cha [su kinhtrong dacbiet].
   'Hien respects her father a special respect.'

   b. [x cause [zi become exist]] by [x verb]i y]
   Hien caused the event [Hien respect] to exist by means of Hien respect her father.

   The LCS in (30b) maps to the PAS as in (31) where the x variable will be satisfied by predication in the syntax, the y variable is mapped to the DO position, and the z variable is mapped to the IO position.

31. verb y, z

   The rule which maps z to the indirect object position is optionally applied as stated in (32).4

32. z is optionally mapped to the IO slot.

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4 Although I do not examine the structure of sentences such as No da toi mot da (He kicked me a kick), the rule which optionally maps z to the IO is still valid regardless of whether the IO is a regular object as in (a) or a CO as in (b).

(1) a. No da [mot da] vao toi or No da [mot da] he kick a kick on me

   b. No da toi [mot da] or No da toi.
This rule accounts for the sentences where $z$ is either mapped as in (30a) or not as in (33).

33. a. Hien kinhtrong cha.
   "Hien respects her father."
   b. ?Hien kinhtrong cha [mot su kinhtrong].
   "Hien respects her father a respect."

This captures the fact that (33a) is synonymous with (33b) and it parallels the commonly assumed analysis of intransitive sentences as D-structure transitives (cf. Hale & Keyser:1993). The structure of the PAS in (33) is similar to that of (6), repeated here as (34).

34. \[
\begin{array}{c}
\text{VP} \\
\text{SpecV'} \\
V' \\
V \\
\text{NP} \\
\text{cha} \\
\text{father} \\
V \\
\text{PP} \\
\text{kinhtrong} \\
\text{respect} \\
P \\
\text{(voi)} \\
\text{with} \\
\text{su kinhtrong dacbiet} \\
a \text{special respect}
\end{array}
\]

In this structure, the verb moves up to the Spec of the lower VP by Head Movement to assign Case to the DO (cha). The IO (CO) receives Case from the P. Although a preposition optionally occurs in indirect COs, it is always present underlingly.

Let us look at the second group in the first verb class represented by ‘kick’ mentioned in 3.2.1.2. If the verb has a singular direct object, it shares the structure of (29) and the direct object can be either a regular DO or a CO.

35. a. No da toi.
   "He kicked me."
   b. No da [mot da]
   "He kicked a kick."

If the verb takes two internal objects, it shares the deep structure of (34). In this case, for reasons which we will not develop here, the CO occupies the DO position and the P is obligatorily overt.
As seen here, a CO of this group always occur in DO position regardless of the fact that it shares the structure of either (31) or (36). This fact explains why COs of this verb group belong to the first type, i.e. the type in which COs are direct objects, although they can occur in ditransitive verbs.

To sum up, I have examined syntactic behaviors of COs in the two verb types. A CO of verb type 1 occurs as a single argument and behaves as a DO. A CO of verb type 2 occupies the IO position of a ditransitive verb and behaves as an IO.

4. Implications

The preceding analysis has some implications which are explored in this section.

4.1 Implication for the limit of objects

First, if a CO is an argument and can occupy either the DO or the IO position, we would not expect to find a CO in a sentence in which there are already two objects. Empirical evidence shows that this prediction is correct. A ditransitive verb can occur with either two regular objects (37a, 38a) or one regular object and one CO (37b, 38b). When a CO co-occurs with two regular objects, the sentence is unacceptable (37c, 38c).

37. a. Nguoi chu thuong toi ky nghi he.  
   class employer reward me a rest summer  
   'The employer rewarded me a vacation.'
   b. Nguoi chu thuong toi [mot su tuongthuong haophong].  
   class employer reward me a class rewarding generous  
   'The employer rewarded me a generous rewarding.'
   c. * Nguoi chu thuong toi ky nghi he [mot su tuongthuong haophong].  
   class employer reward me a rest summer a class rewarding generous  
   'The employer rewarded me a vacation a generous rewarding.'

38. a. Co day toi tieng Viet.  
   she teach me language Vietnamese  
   'She taught me Vietnamese.'
b. Co day toi [mot su daydo tantuy].
   she teach me a class teaching devoted
   'She taught me a devoted teaching.'

c. * Co day toi tieng Viet [mot su daydo tantuy].
   she teach me language Viet a class teaching devoted
   'She taught me Vietnamese a devoted teaching.'

Notice that the CO in (37) is a CO which states the event. There is another
word, giaithuong, which means ‘prize’.

The (c) sentences are acceptable if there is a prosodic factor involved: a pause
between the second regular object and the CO. The CO then functions as an
appositive element which gives a comment on the event of rewarding or teaching.
For example, (37c) can be paraphrased as in (39).

39. Viec nguoi chu thuong toi ky nghi he la [su tuongthuong haophong].
   thing class employer reward me class rest summer be class rewarding generous
   'That the employer rewarded me a vacation is a generous rewarding.'

4.2 Implication for verb types

Following Perlmutter (1978) and Burzio (1986), I assume that there are two classes
of intransitive verbs. The first class, the unergative verbs, have a single argument as
an underlying subject in D-structure. The second class, the unaccusative verbs, have
a single argument as an underlying object in D-structure.

In English, given the assumption that COs of intransitive verbs are direct
objects, Massam (1990) points out that the CO construction is not allowed in verb
types in which the direct object position is already filled in D-structure. The
following data are taken from Massam.

40. a.* Arthur feared his kingly fears.
    b.* Oliver arrived his frightening arrival.
    c.* Lancelot was happy a happiness.
    d.* Fiona showered a shower.

In Vietnamese, if a CO can occupy the IO position, we can predict that the CO
is able to occur in verb types such as those in (40). This prediction is correct. We
find CO construction in these verbs.

41. a. Ti so [mot noi so vo co].
    Ti fear a class fear no reason
    'Ti feared an inexplicable fear.'

b. Thanhpho bandem dep [mot ve dep rucro].
    city at night beautiful a class beauty gorgeous
    'The city is gorgeously beautiful at night.'

be vui [mot niemvui onao].
    Det boy happy a happiness noisy
    'The boy was noisily happy.'
d. Chan troi tim [mau tim chet].
   leg sky purple colour purple dead
   'The horizon is deadly purple.'

e. Nguoi tu tam [mot cai tam sangkhoai].
   person prison bath a class bath pleasant
   'The prisoner had a pleasant bath.'

f. Cai ly nut [vet nut dai].
   class glass crack a crack long
   'The glass cracks a long crack.'

g. Trai buoi chin [cai chin dau mua].
   class pomelo ripe a ripeness beginning season
   'The pomelo fruit is ripe at the beginning of the season.'

There are many examples of this type, since all adjectives can function as verbs in Vietnamese.

The analysis proposed also accounts for another phenomenon seen in (41): when the DO position is already occupied in D-structure, the COs must occupy the IO position. As a consequence, the COs in (41) should behave like indirect COs of verb type 2 (respect). In fact, all examples behave like indirect COs. The COs in (41) do not allow passivization (42a) and middle construction (42b). They do not occur with Quantifiers, indefinite pronoun and the perfective (42c, d, e).

42. a. * [Mot noi so vo co] duoc (Ti) so.
   a class fear no reason pass Ti fear
   'An inexplicable fear is feared (by Ti).'
   a class beauty gorgeous beautiful
   'A gorgeous beauty is easily beautiful.'
c. * Cau be vui tung [niem vui onao].
   class little happy every class happiness noisy
   'The little boy is happy every noisy happiness.'
d. * Ai do dep [mot ve dep kindao].
   someone that beautiful a class beauty hidden
   'Someone is beautiful a hidden beauty.'
e. * Cai ly do nut xong [vet nut dai].
   class glass past crack already class crack long
   'The glass already cracked a long crack.'

Furthermore, like indirect COs of verb type 2, all COs in (41) co-occur with deep DOs which are surface subjects. And they can also optionally take a preposition as in (43).

(43) Datnuoc toi buon triennien (voi) [noibuon chientranh].
    country my sad endless with a sadness war
   'My country is continually sad with a sadness of war.'

The analysis that COs in (43) are IOs further predicts that they should behave differently from the COs of unergative verbs which are DOs. Indeed, they do. The
COs in (44a) allow passivization, middle formation, occur with Quantifiers, ai do (someone) and xong (already).

44. a. Ti that [mot tieng that lon].
   Ti scream a class scream big
   'Ti screamed a big scream.'

b. [Mot tieng that lon] duoc that len.
   a class scream big pass scream up
   'A big scream was screamed.'

c. [Tieng that] that de.
   class scream scream easy
   'A scream screams easily.'

d. Co gai that [nhung tieng that lon].
   class girl scream pl class scream big
   'The girl screamed big screams.'

e. Ai do di that [mot tieng that lon].
   someone that past scream a class scream big
   'Someone screamed a big scream.'

f. Co that xong [tieng that] thi ngat di.
   she scream already a scream then faint prt
   'She fainted after screaming.'

The verbs in this group usually have agentive subjects, e.g. cuoi (smile), laubau (grumble), sua (bark), ho (cough), etc.

In summary, the analysis that there exist indirect COs leads to some predictions which are correct, as shown. Indirect COs occur in unaccusative verb types in which the direct object is already occupied in D-structure. Furthermore, the fact that a CO cannot occur in a sentence where there are already two objects gives support to the claim that COs are indeed arguments.

5. Conclusion

This paper has examined the CO constructions in Vietnamese transitive verbs. I have demonstrated that there are two types of COs with different syntactic properties. In the first one, the CO occupies the DO position; in the second one, it occupies the IO position. The fact that unaccusative verbs can take COs when the DO position is already filled in D-structure gives strong evidence for the claim that COs can occur as IOs in Vietnamese. This claim allows us to maintain the theory, in which unaccusative verbs now are not a problem by my analysis. This claim, in turn, makes a distinction between Vietnamese and other languages, such as English, in that Vietnamese allows indirect COs but English does not. Furthermore, the facts that direct COs in Vietnamese are easily passivized and that they can not occur when there are already two objects in the sentence strongly support the view that COs are indeed arguments and therefore, true objects.
References


