The Light Verb Jungle: Still Hacking Away

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1   Introduction to the Jungle

This is a revised and updated version of Butt (2003), which noted that the study of light verbs and complex predicates is frought with dangers and misunderstandings that go beyond the merely terminological.[1] The paper thus attempts to provide some clarity by addressing how light verbs and complex predicates can be identified crosslinguistically, what the relationship between the two is and whether light verbs must always be associated with uniform syntactic and semantic properties. Based primarily on both diachronic and synchronic evidence from the South Asian language Urdu, but also by taking crosslinguistic patterns into account, this paper attempts to pull together the relevant available knowledge in order to arrive at a more definitive understanding of light verbs.

Jespersen (1965,Volume VI:117) is generally credited with first coining the term *light verb*, which he applied to English V+NP constructions as in (1).

(1)   *have* a rest, a read, a cry, a think
    take a sneak, a drive, a walk, a plunge
    give a sigh, a shout, a shiver, a pull, a ring

The intuition behind the term "light" is that although these constructions respect the standard verb complement schema in English, the verbs *take, give*, etc. cannot be said to be predicating fully. That is, one does not actually physically "take" a "plunge" but rather one "plunges". The verbs therefore seem to be more of a verbal licenser for nouns. However, the verbs are clearly not entirely devoid of semantic predicative content either: there is a clear difference between *take a bath* and *give a bath*. The verbs thus seem to neither retain their full semantic predicational content, nor are they semantically completely empty. Rather, they appear to be semantically *light* in some manner that is difficult to identify. From a diachronic perspective, the intuition has been that the light form of these verbs developed from the main verb and that the light form lost some of the semantic content as part of historical change (but see section 4). However, what it is precisely that the light verb contributes to the joint predication and therefore exactly which parts of the predication are supposed to have been lost as part of historical change is difficult to characterize. Furthermore, there is no documented evidence of such a historical development (cf. Bowern 2008).

Since Jespersen's original coinage, the term light verb has been adopted for analyses in a number of languages. Some (fairly) recent examples are Grimshaw and Mester's (1988) analysis of

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[1]Thanks go to the editors for bearing with me, and to an anonymous reviewer for very thoughtful comments.

Japanese *suru* 'do' (N+V), Rosen's (1989) work on Romance periphrastic causatives with 'make' (V+V), Mohanan's (1994) analysis of Hindi N+V complex predicates and my own work on Urdu V+V complex predicates (Butt 1995). In these papers, the term **complex predicate** designates a construction that involves two or more predicational elements (e.g., nouns, verbs and adjectives) which predicate as a single unit, i.e., their arguments map onto a monoclausal syntactic structure.

Complex predicates can also be found in other languages and have been written about by other authors than the ones cited above. However, the literature discussing these constructions involves a dizzying diversity of analyses and terminology. In descriptive grammars, the term *compound verb* tends to be favored, but is generally inappropriate as the two predicational elements do not form lexical compounds by anybody's definition of compound. Another term is *composite predicate*, which seems to be a reasonable alternative. However, complex/composite predicates are also sometimes referred to as *serial verb constructions* (SVC), the prototypical instantiation of which differs considerably in terms of syntax and semantics from that of the typical complex predicate, although the precise line of demarkation is difficult to draw (cf. Butt 1995, Choi 2005, Aikhenvald 2006; see section 5). Complex predicates are also often lumped together with control constructions (e.g., Huang 1992 for Chinese *ba* and *de*), which are instances of one clause embedded in another, hence biclausal and hence actually very much unlike complex predicates, for which syntactic monoclausality is a hallmark (section 2.4). At the other extreme, complex predicates are often classified as a form of auxiliary construction with the light verb identified as a functional item along the lines of tense and aspect auxiliaries (e.g., Hacker 1958 and Hook 1974, 1991, 1993 for Hindi) or there is no distinction drawn between auxiliary constructions and complex predicates (e.g., Abeillé, Godard and Sag 1998 analyze both tense auxiliaries and causative *faire* constructions in French as complex predicates; Wurmbrand 2001 sees both auxiliary constructions and complex predicates as a form of *restructuring*; generally Government-Binding (GB) and Minimalist (MP) approaches draw no distinction between auxiliaries and light verbs, treating both as an instance of raising).[2] As argued in section 3, this appears to be a fundamental misanalysis.

Sorting through the various analyses, languages and terms that have been proposed is not trivial and requires a great deal of careful and detailed syntactic work. This paper aims at making a first contribution to the overall (probably book-length) task of identifying core characteristics of light verbs and providing solid syntactic and semantic analyses. In what follows, I thus attempt to draw a very sharp distinction between auxiliaries and light verbs, providing crosslinguistically relevant diagnostics along the way. The paper first presents typical characteristics of light verbs (section 2) and then establishes that light verbs are part of a syntactically monoclausal predication within a complex predicate (section 2.4). Section 3 argues further that light verbs constitute a separate syntactic class (section 3) and section 4 takes a look at some available diachronic evidence before proposing an analysis in section 5 which ties light verbs very closely to their main verb counterparts and which sees them as elements which serve to modulate the main predication in a subtle manner.

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[2]Note that Wurmbrand actually confuses the issue further by drawing parallels between German *coherent verbs* and Romance type complex predicates. However, the two phenomena are syntactically and semantically quite different. In particular, German coherent verbs do not involve a unified predication (predicate composition), rather there are two separate domains of predication (see section 2).

2 Typical Characteristics of Light Verbs

My understanding of complex predicates and light verbs is necessarily colored by the types of constructions found in South Asian languages. While I have worked mainly on Urdu, these constructions can be found in most of the South Asian languages (cf. Masica 1976 on South Asia as a language area). Furthermore, the same types have also been identified in many other languages and language families, such as Romance, Bantu, Japanese, Korean, and Persian.

2.1 Light Verbs in Connection with Complex Predicates

Under my understanding (and as in e.g., Alsina, Bresnan and Sells 1997, Alsina 1996, Mohanan 1994), the term *complex predicate* refers to any construction in which two or more predicational elements each contribute to a **joint predication**. Note that this is distinct from *noun incorporation*, in which an object (or other argument or adjunct) is drawn into the verbal predication to become part of that predication, but does not add anything else to the predication. That is, it moves in with the predicate, but it does not contribute anything other than itself to the joint household, so to speak. An example of noun incorporation in Hindi/Urdu is given in (2), in which in one reading the object 'horse' has incorporated into the verb, thus modifying it and giving rise to the sense of a general activity of *horse-selling* (cf. Mohanan 1995).

(2) anil   gʰoṛe   bec-ta   hai
    Anil.M.Nom horse.M.Pl sell-Impf.M.Sg be.Pres.3.Sg
    'Anil sells horses./Anil does horse-selling.'   Urdu

In complex predicates, on the other hand, both parts of the predication contribute something. Complex predicates can encompass either *morphological* or *syntactic* elements. A typical example of morphological complex predication is that of morphological causativization, as in (3b), where the causative morpheme *-va* is at the very least contributing the causer 'Nadya' and the other arguments are coming from the main verb 'cut'.

(3) a. yɑssin=ne   pɑoda   kaṭ-a
       Yassin/M.Sg=Erg plant.M.Nom cut-Perf.M.Sg
       'Yassin cut the plant.'   Urdu

    b. nadya=ne   yɑssin=se   pɑoda   kaṭ-**va**-ya
       NadyaF.Sg=Erg Yassin.M.Sg=Inst plant.M.Nom cut-**Caus**-Perf.M.Sg
       'Nadya had the plant cut by Yassin.'   Urdu

In a comparison between Bantu and Romance, Alsina (1996) and Alsina and Joshi (1991) have shown that regardless of whether the complex predication is morphological or syntactic, the composition of arguments of both the predicational elements works along the same principles. Thus, in the permissive in (4), it is the lexical item *de* 'give' that is the element which at the very least contributes the extra argument (in this case the permitter) to the joint predication, but the way in which the joint argument structure is arrived at can be modeled in exactly the same way as for the causative (see also Butt and King 2006, Butt, King and Ramchand 2008).

(4) nadya=ne   yɑssin=ko pɑoda   **kɑʈ-ne di-ya**
    Nadya.F.Sg=Erg Yassin=Inst plant.M.Nom cut-Inf give-Perf.M.Sg
    'Nadya let Yassin cut the plant.'   Urdu

The fact that (4) is an example of a complex predicate, namely a syntactically monoclausal predication consisting of two more predicational heads (see section 2.4) is established in Butt (1995). Other examples of typical complex predication are in (5) and (6), namely Noun-Verb and Verb-Verb complex predicates, respectively. Beyond these, Urdu (and other languages) also contains Adj-V complex predicates such as 'clean-do' (not illustrated here; e.g., Mohanan 1994).

(5) a. nadya=ne   kɑhani **yad**   **k-i**
       Nadya.F.Sg=Erg story.F.Sg memory.F do-Perf.F.Sg
       'Nadya remembered the story.'   Urdu

    b. nadya=ko   kɑhani **yad**   **a-yi**
       Nadya.F.Sg=Dat story.F.Sg memory.F come-Perf.F.Sg
       'Nadya remembered the story (the memory of the story came to Nadya).'   Urdu

(6) a. nadya=ne   xɑt   **lɪk^h**   **li-ya**
       Nadya.F.Sg=Erg letter.M.Nom write take-Perf.M.Sg
       'Nadya wrote a letter (completely).'   Urdu

    b. nadya=ne   mɑkan   **bɑna di-ya**
       Nadya.F.Sg=Erg house.M.Nom make give-Perf.M.Sg
       'Nadya built a house (completely, for somebody else).'   Urdu

The light verb in the examples above is always the inflected one, but this is not necessarily the case crosslinguistically. In my view, the ability to carry tense/aspect information or be inflected is not a typical characteristic of light verbs.

In the N-V complex predicates, the light verb acts as a verbalizer. That is, it is a very productive device for drawing predicates into the language and incorporating loan words into the verbal system (e.g., 'phone-do' for telephone). This is particularly crucial for a language like Urdu, which only has a basic verb inventory of about 500 items. The light verb in this case is reminiscent of the role that verbalizing derivational morphology plays in other languages (e.g., English *-ify*), though in Urdu, as in other languages with complex predicates, the light verbs are used to make a distinction between agentive and non-agentive actions, 'do' vs."come" in (5). Also note that the argument 'story' is contributed to the joint predication by the noun, not by the light verb.

In (6), the light verb combines with something that is already a verb (historically a gerund, see Butt and Lahiri 2003) and generally affects the Aktionsart of the joint predication. In (6) the light verb renders the event bounded, but other subtle modifications such as benefactive readings, forcefulness, suddenness or inception are also possible (Hook 1974). In this case it is difficult to see how the light verb contributes arguments to the joint predication, but it does, see section 2.3.

The examples above show that light verbs are always part of a complex predicate. This complex predicate may range over different types and therefore exhibit differing syntactic and semantic

properties. As a consequence, light verbs also do not all necessarily exhibit exactly the same syntactic properties — just as all auxiliaries or all lexical verbs are not alike, but can be divided into subclasses based on their differing syntactic behavior, so do light verbs constitute a cohesive class on the one hand, but fall into differing subclasses on the other hand.

Note that the different types of light verbs found in Urdu can interact with one another, allowing for complex complex predications as in (7), in which a N-V complex predicate is causativized and this combination becomes part of a V-V complex predicate, which is further combined with a permissive (see Butt, King and Ramchand 2008 for a full analysis of this example).

(7) tara=ne   ɑmu=ko   (bɑcce=se)   hatʰi
    Tara.F.Sg=Erg Amu.F.Sg=Dat child.M.Obl=Inst elephant.M.Sg.Nom

    pınc kɑr-va le-ne   di-ya
    pinch do-Caus take-Inf.Obl give-Perf.M.Sg
    'Tara let Amu have the elephant pinched (by the child).'   Urdu

A detailed investigation of which kinds of complex predicates can interact with which other kinds of complex predicates remains to be undertaken, both in Urdu and in a crosslinguistic context. Butt and Ramchand (2005) point out for Urdu that only certain combinations are licit.

2.2   Form Identity to a Full Verb

A central characteristic of light verbs is that they are always **form identical** to a main verb of the language (Butt and Lahiri 2003). This has already been illustrated by the examples above. Even though the light verbs clearly do not have the same predicational content as their full/main verb counterparts, they are always exactly form identical to a full verb and inflect exactly like that full verb. This characteristic sets light verbs apart from auxiliaries in terms of historical change, as auxiliaries may be form identical to a full verb at the initial stages of reanalysis from verb to auxiliary, but then quickly tend to develop away from the original form of the full verb. Examples are the English preterite -*d*, which has been related to the verb *do*, or the Urdu future -*g*- in (8), which until just a few hundred years ago used to be the independent lexical item 'go' (Butt and Lahiri 2003; see Bybee, Perkins and Pagliuca 1994 for further examples).

(8) nadya=ko   kɑhani   yad   a-ye-**g**-i
    Nadya.F.Sg=Dat story.F.Sg memory.F come-3.Sg-Fut-F.Sg
    'Nadya will remember the story (the memory of the story will come to Nadya).'   Urdu

Butt and Lahiri (2003) therefore claim that light verbs are not part of the grammaticalization cline that is often posited (Hopper and Traugott 1993; see Bowern 2008 for a discussion of the state of the art with respect to this line of inquiry), but that instead light verb and full verb usages must be drawn from the same underlying lexical entry, whose lexical information plays out in different ways depending on its syntactic environment. Indeed, as discussed in Butt and Lahiri (2003) at some length and as summarized in section 4, no evidence for continual reanalysis of a full verb form to a light verb and thence to an auxiliary can be identified.

2.3 Joint Predication and Monoclausality

As discussed in section 2.1, light verbs are always part of a joint predication within a complex predicate. Indeed, it is this central characteristic that has rendered complex predication and the representation of light verbs a tough nut for syntactic theories. This is because a very fundamental assumption underlying all syntactic theories has been that the main verb is the predicational lynch-pin of the clause and that all other elements in the clause are either arguments or modifying elements of some sort. However, there was no sense that two or more predicational elements could come together to form a joint predication, with a jointly determined argument structure.

A very simple solution is to assume that light verbs are predicationally empty, i.e., their function is simply to license the predication of a non-verbal element. For example, this is essentially the solution pursued by Grimshaw and Mester (1988) for Japanese or Cattell (1984) for English. However, light verbs do contribute to a joint predication in a systematic manner (this is true for both Japanese *suru*, see Butt 1995, and English light verbs, see Brinton and Akimoto 1999). Approaches which seek to capture this systematic contribution of the light verb to the joint predication posit some kind of argument merger. Rosen (1989), for example, differentiates between *light* (empty), *partial*, and *complete merger* for restructuring verbs and causatives in Romance.[3] Alsina (1996), Mohanan (1994), Butt (1995) respectively propose the notions of *Predicate Composition*, *Argument Merger* and *Argument Fusion* in order to account for Romance and Hindi/Urdu.

Another possible idea within generative syntax is that light verbs are actually instantiations of v (Adger 2003:134). The idea of v goes back to Chomsky (1957) who introduced it for auxiliaries and modals. As used in current analyses within the Minimalist Program (MP), v is a curious category: it could be interpreted as either a functional or a lexical category, or a mixture of both. Given the mixed nature of light verbs (some semantic information, but predicationally dependent), v would actually seem to be quite a good candidate for a light verb analysis (see Butt and Ramchand 2005 for an articulation of this idea with respect to Urdu, analyses are also being worked out for Persian N-V complex predicates[4]).

Whichever analytical framework is chosen, the central characteristics of complex predication in connection with light verbs has to be modeled. For one, the form identity of light verbs to full verbs must be accounted for (this is taken up in section 5). For another, the jointly determined, complex argument structure that represents a primary predication corresponding to a syntactically monoclausal structure must be represented. In order to illustrate precisely what I mean by the latter, I provide a concrete analysis in terms of Lexical-Functional Grammar (LFG; Dalrymple 2001).

As shown in Butt (1995), the permissive complex predicate in (4) contrasts with the superficially similar Urdu biclausal tell-construction as in (9) in terms of agreement, anaphora and control.
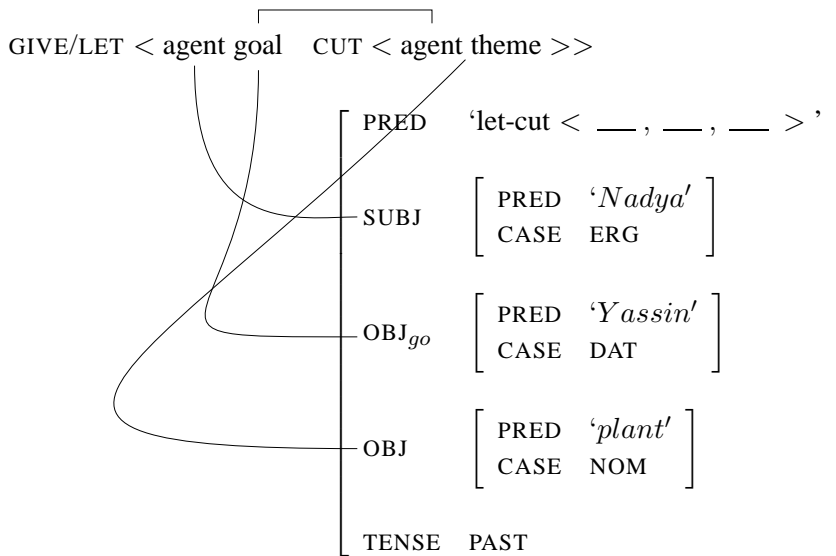
(9) nadya=ne   yɑssin=ko [pɑoda   kɑṭ-ne=ko] kah-a
    Nadya.F.Sg=Erg Yassin=Inst plant.M.Nom cut-Inf=Acc say-Perf.M.Sg
    'Nadya told Yassin to cut the plant.'   Urdu

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[3]For an early analysis of complex predication in Romance as *clause union* see Aissen and Perlmutter (1983).
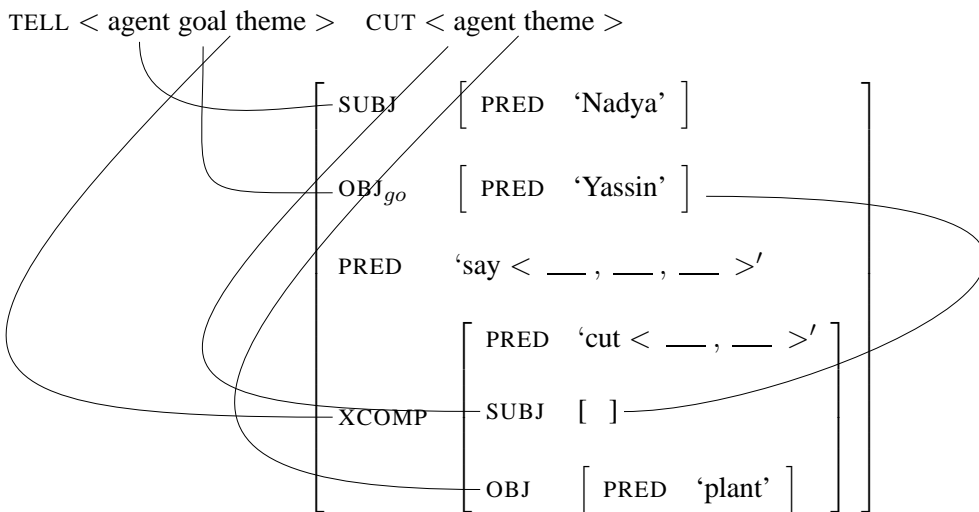
[4]The relevant papers are currently under review.

In both the permissive and the tell-construction, there are two predicational elements. However, in the permissive, the two combine to form one syntactically monoclausal predication, as shown in (10). This contrasts with the syntactically biclausal construction in (11), in which evidence from agreement, anaphora and control point towards the existence of an embedded subject and an embedded object. Thus, in (10) two predicational elements, 'let/give' and 'cut' combine to form a single predicational unit, a complex predicate. In (11), on the other hand, the two verbs predicate separately, each linking to a separate syntactic domain, with a subject in each of these domains.

(10) **Monoclausal Permissive**

GIVE/LET < agent goal   CUT < agent theme >>

$$
\begin{bmatrix}
\text{PRED} & \text{'let-cut} < \underline{\quad}, \underline{\quad}, \underline{\quad} > \text{'} \\[1em]
\text{SUBJ} & \begin{bmatrix} \text{PRED} & 'Nadya' \\ \text{CASE} & \text{ERG} \end{bmatrix} \\[1.5em]
\text{OBJ}_{go} & \begin{bmatrix} \text{PRED} & 'Yassin' \\ \text{CASE} & \text{DAT} \end{bmatrix} \\[1.5em]
\text{OBJ} & \begin{bmatrix} \text{PRED} & 'plant' \\ \text{CASE} & \text{NOM} \end{bmatrix} \\[1.5em]
\text{TENSE} & \text{PAST}
\end{bmatrix}
$$

(11) **Biclausal Tell-Construction**

TELL < agent goal theme >   CUT < agent theme >

$$
\begin{bmatrix}
\text{SUBJ} & \begin{bmatrix} \text{PRED} & \text{'Nadya'} \end{bmatrix} \\[1em]
\text{OBJ}_{go} & \begin{bmatrix} \text{PRED} & \text{'Yassin'} \end{bmatrix} \\[1em]
\text{PRED} & \text{'say} < \underline{\quad}, \underline{\quad}, \underline{\quad} >' \\[1em]
\text{XCOMP} & \begin{bmatrix} \text{PRED} & \text{'cut} < \underline{\quad}, \underline{\quad} >' \\ \text{SUBJ} & [\;\;] \\ \text{OBJ} & \begin{bmatrix} \text{PRED} & \text{'plant'} \end{bmatrix} \end{bmatrix}
\end{bmatrix}
$$

Exactly how the correspondence between the a(rgument)-structures and the syntactic representation happens is determined by a theory of *argument merger* in combination with a version

of LFG's *linking theory*. The details of the analysis are not relevant here (see Bresnan 2001, Dalrymple 2001 for a general description and Butt 1995 and Butt, King and Ramchand 2008 for a discussion of the phenomena at hand), the point of presenting the analyses is merely to drive home the idea that complex predication involves two or more predicational elements which predicate jointly by mapping their combined predicational content to a single monoclausal syntactic domain.

It is not always easy to see that both parts of the complex predication are contributing independently to the argument structure. For example, the light verbs in examples such as in (6) never add to the overall valency of the predication. However, that the light verb does make a contribution to the overall joint predication in terms of argument structure in these cases as well becomes evident with examples as in (12) and (13). For one, agentive light verbs like 'take' cannot ever be combined with unaccusative verbs such as 'go', as shown in (12). For another, the light verbs determine the case of the subject. This is illustrated by the contrast between (13a) and (13b), where the agentive light verb 'take' triggers the ergative case on the subject, but a non-agentive verb does not.

(12) a. nadya   gır gɑ-yi
       Nadya.F.Sg.Nom fall go-Perf.F.Sg
       'Nadya fell (down).'   Urdu

       b. *nadya=ne   gır li-ya
         Nadya.F.Sg=Erg fall take-Perf.M.Sg
         'Nadya fell (completely).'   Urdu

(13) a. nadya=ne   ro li-ya
       Nadya.F.Sg=Erg cry take-Perf.M.Sg
       'Nadya cried (has finished and did it on purpose).'   Urdu

       b. nadya   ro pɑṛ-i
         Nadya.F.Sg.Nom cry fall-Perf.F.Sg
         'Nadya fell to crying (involuntarily).'   Urdu

A careful analysis of the complex predicates in (12) and (13) in terms of data from agreeement, anaphora and control (Butt 1995) confirms that these constructions are indeed monoclausal. Thus, this type of complex predicate also passes the test of a complex joint predication which corresponds to a monoclausal syntactic domain. Such tests for monoclausality are discussed in the next section.

2.4 Establishing Monoclausality

Complex predicates differ syntactically from control or raising constructions as in (14) and (15), which encompass two syntactically separate domains of predication, but where some arguments (*her/she*) are shared across the domains.

(14) I ordered her to play soccer.

(15) She seems to play soccer.

One crucial step in the identification of complex predication therefore is the establishment of syntactic monoclausality.[5] Whether a given structure is monoclausal or not can only be determined on the basis of language dependent tests. That is to say, tests for monoclausality may vary across languages, depending on the internal structure and organization of the language in question.

Some of the earliest work on complex predication stems from analyses of Romance languages within Relational Grammar (RG). Aissen and Perlmutter (1983) show that Clause Union (i.e., complex predication) in Spanish and Italian can be identified by phenomena such as clitic climbing: clitics "climb" to the higher verb in complex predicates, but not in biclausal constructions, as shown in (16) and (17) for French. Other tests include passivization and reflexivization (see Rosen 1989 for further discussion and tests, primarily for French and Italian).

(16) a. Jean a   fait   partir Marie.
          Jean has made go   Marie
          'Jean made Marie go.'   (Rosen 1989:22)   French

      b. Jean l'a   fait   partir.
          Jean her has made go
          'Jean made her go.'   (Rosen 1989:23)   French

(17) a. Marie a   entendu Pierre réciter les poèmes.
          Marie has listened Pierre recite   the poems
          'Marie heard Pierre recite the poems.'   (Rosen 1989:25)   French

      b. *Marie les   a   entendu Pierre réciter.
           Marie them has listened Pierre recite
           'Marie heard Pierre recite them.'   (Rosen 1989:25)   French

Korean is an SOV language that does not have clitic climbing (let alone pronominal clitics). It does, however, contain a number of constructions that look like V-V complex predicates. How can one establish that these constructions are indeed complex predicates? Choi (2005) examines V-V constructions of the kind shown in (18) in terms of how they behave with respect to negative polarity items (NPI), negation and the (non-)separability of the two verbs.

(18) Chelswu-Ka   namwunip-ul **ssel-E   chiw-ess-ta**
      Chelswu-Nom leaves-Acc   sweep-E clean-Past-Decl
      'Chelswu has **swept up** the leaves.'   Korean

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[5]Note that within the class of monoclausal complex predicates, a further distinction can be made, namely between *primary* and *secondary* predication. The complex predicates examined in this paper are all examples of primary predication. Standard examples of secondary monoclausal predication are furnished by resultatives in languages like English, German and Dutch: *Paul painted the door green*. Secondary predications such as resultatives do not involve light verbs as far as I can tell.

In Korean the NPI items *anwu-to* 'nobody' and *an* 'not' together mean 'nobody'. These items must cooccur in the same clause. If they do not, the NPI meaning is not licensed and the sentence is ungrammatical, as shown in (19).

(19) *Chelswu-nun [**anwu-to** pam-ul   ilk-ess-ta]-ko   **an** malha-ess-ta.
     Chelswu-Top nobody   chestnut-Acc eat-Past-Decl-Comp Neg say-Past-Decl
     'Chelswu did not say that nobody ate the chestnut.'   Korean

In contrast, when the NPI items are distributed across the kind of V-V construction illustrated in (18), the NPI reading is well-formed, indicating that the construction must be monoclausal and therefore a complex predicate.

(20) **anwu-to** pam-ul   **an** mek-E chiw-ess-ta.
     nobody   chestnut-Acc Neg eat-E   clean-Past-Decl
     'Nobody (children) has eaten up the chestnut.'   Korean

The second (inflected) verb in the construction is the one that can be identified as a light verb, given its "diminished" predicational impact. Again, this light verb is always form identical with a main verb in the language and has been glossed with the meaning of the main verb.

The NPI test also works for Urdu (and Turkish). In addition, as already mentioned, Butt (1995) shows that object agreement, anaphora and control are good tests for monoclausality in Urdu. In sum, there are several possible tests for monoclausality, but these tests must be applied on a language internal basis. That is, a test like clitic climbing will not apply to languages without pronominal clitics, the Urdu object agreement test will not work for a language which does not allow object agreement, and the Korean NPI test will not work for a language that does not allow the separation of NPI items. The identification of complex predicates and light verbs therefore presupposes a very careful scrutiny of the syntax of a given language.

3   Light Verbs as a Separate Syntactic Class

Light verbs are parts of complex predicates. While this fact has been recognized, many syntactic approaches chose to classify light verbs either as a type of auxiliary or as a main verb that works similarly to raising or control verbs such as *order, tell* or *seem*. This section argues that light verbs should be recognized as separate syntactic class. Or rather, that the syntactic properties of light verbs distinguish them from the syntactic distribution of auxiliaries as well as main verbs. Just as with monoclausality, language particular syntactic factors must be taken into account in establishing this. The evidence presented in this section goes through some data from Northern Australian languages, Mandarin Chinese, and Urdu.

3.1   Northern Australian

Some Australian languages exhibit complex predicates which consist of a coverb or preverb and an inflecting verb. The coverb and inflecting verb can be shown to be part of a monoclausal complex

predication (see Wilson 1999 for Wagiman, Bowern 2004 for Bardi, Schultze-Berndt 2000 for Jaminjung). In the Northern Australian languages, the coverbs are drawn from an open class, do not inflect and in general seem to share characteristics with both adverbials and verbs. The inflecting verbs, on the other hand, are drawn from a closed class that is generally quite small (Bowern 2004 lists a core class of about 10 verbs). The inflecting verbs can be used to predicate as a main verb, but when they are used in combination with a coverb, their predicational content is *light*. An example from Jaminjung is shown in (21) where the main predication is furnished by the coverb 'race'.

(21) **burdurdubba=biya ga-ngga**   ngayin   thanthu
      race=now   3Sg-go.Pres animal(Abs) Dem(Abs)
      'It is racing off now that animal.' (Schultze-Berndt 2002)   Jaminjung

Besides their unique syntactic distribution, these inflecting verbs also play a unique semantic role within the language. As the examples in (22) and (23) show, the inflecting (light) verbs are able to influence the Aktionsart of the joint predication: while the coverb stays constant in each of these examples, the choice of the light verb modulates the event predication in a subtle way.

(22) a. walthub ga-jga-ny
        inside   3Sg-go-Past
        'go in'   (Schultze-Berndt 2002)   Jaminjung

     b. walthub ga-rdba-ny
        inside   3Sg-fall-Past
        'get in'   (Schultze-Berndt 2002)   Jaminjung

(23) a. bul   ga-ruma-ny
        appear 3Sg-come-Past
        'appear'   (Schultze-Berndt 2002)   Jaminjung

     b. bul   gani-ma
        appear 3Sg-hit.Past
        'appear (suddenly)'   (Schultze-Berndt 2002)   Jaminjung

Bowern (2004) provides a host of arguments that identify inflected verbs of this type in Bardi as light verbs of the type found in Urdu (Butt and Geuder 2001). Schultze-Berndt (2002) further offers an analysis of these light verbs as *classifiers* of events. In (21), for example, the coverb denotes the manner, while the light verb supplies the event predication. In (24), the coverb supplies a path and the light verb supplies information about the type of motion on that path. The coverb in (25) denotes a result and the light verb supplies the cause.

(24) buru ga-ruma-ny
      back 3Sg-come-Past
      's/he came back' (Schultze-Berndt 2002)   Jaminjung

11

(25) ning   burr-wa-na
     break.off 3Pl:3Sg-bite-Impf
     'They were biting something off.'   (Schultze-Berndt 2002)   Jaminjung

The available evidence from Northern Australian thus points to a distinct syntactic class of light verbs which serve to modulate or modify the joint event predication. Another such example comes from Mandarin Chinese, as is shown in the next section.

3.2   Mandarin Chinese

The discussion in this section is based on materials and insights taken from Scott (1996) and on further joint work (Butt and Scott 2002), which takes a close look at Chinese directionals. As illustrated in (26), the Mandarin directionals are drawn from a closed set of verbs of direction. Typical examples of usage, which are immediately reminiscent of the Australian examples in the previous section, are shown in (27).

(26)

Directional Etymons

shang	ascend/up	*hui*	return/back
xia	descend/down	*qi*	rise
jin	enter/in	*kai*	open/apart
chu	exit/out	*lai*	come/hither
guo	cross/over	*qu*	go/thither
dao	reach/to		

(27) **Examples of Usage**

pao jin	run enter	='to enter running'
na chu	take exit	='to take/extract'
fang xia	put descend	='to put down'
pa shang	climb ascend	='to climb up'
tong guo	traverse cross	='to go through/cross'
zhuan hui	turn return	='to turn back/return'
lai dao	come reach	='to arrive, come to'
zhan qi	stand rise	='to stand up'
zou kai	walk open	='to walk away'

A cursory examination of the directional construction already reveals some of the hallmarks of light verbs identified previously: the second verb (the directional) is always form identical to a full verb in the language, but is not predicating as a full verb. This is illustrated with respect to 'descend' in (28).

(28) qing ni **liu** **xia**   nide ming-pian
     please you leave descend your name card
     'Please leave your name card.'   Mandarin Chinese

Teasing apart the relevant data for Mandarin Chinese is quite tricky. However, a careful analysis shows that these directionals can have as many as four usages and that one of them aligns with light verbs crosslinguistically. Butt and Scott (2002) concentrate on *guo* 'cross' as a case study.

This verb can be used in four different ways. Example (29) illustrates the main verb use, (30) a verb second (V2) directional use, and (31) an aspectual use (experiential perfect).

(29) guo malu
     cross road
     'to cross the road'   Mandarin Chinese

(30) pao guo qu
     run cross go
     'to run across'   Mandarin Chinese

(31) wo shuai duan guo tui
     I   fall   sever cross leg
     'I broke my leg once (but it has healed since).'   Mandarin Chinese

In addition to these three usages a fourth one can be distinguished. On the surface, this light verb usage appears to be very similar to the directional V2 or the aspectual use in (30) and (31), however, there are clearly identifiable syntactic and phonological differences.

(32) wo chi guo le
     I   eat cross Curr.Rel.Sit.
     'I have eaten.'   Mandarin Chinese

When *guo* is used as a main verb, it receives tone and is not subject to selectional restrictions. When it is used as a lexical V2 directional as in (30), tone is preferred but not obligatory, and the directional may take either a locative or a theme argument. The light use in (32), on the other hand, disprefers tone, is not separable from the main verb ('eat') and cannot take a locative argument, only a theme. Finally, as a pure aspect marker in (31), *guo* receives no tone and licenses no independent arguments.

There are thus four distinct identifiable uses of *guo* and we again have a case of a syntactically distinct category which goes hand-in-hand with a distinct semantics.

3.3 Urdu

The same conclusion, namely that light verbs must be acknowledged as a distinct syntactic category, can be reached in Urdu on the basis of yet a different set of criteria. Urdu is an SOV language with fairly free word order among constituents, but a rigid order within the verbal complex. As shown in (33), the light verb fits into a distinct slot in the verbal complex and no other order is licit.

(33) Main Verb (Light Verb) (Passive Auxiliary) (Progressive Auxiliary) (Tense Auxiliary)

Like the other main members of the verbal complex, namely the passive, progressive and be auxiliaries, the light verbs are always optional and always independent syntactic elements. Unlike the auxiliaries, light verbs can be reduplicated. The contrast is illustrated by (34) vs. (35) (cf. Fitzpatrick-Cole 1994 for Bengali).

(34) a. vo   so **dʒa-ti**   tʰ-i
        Pron.3.Sg.Nom sleep go-Impf.F.Sg be.Past-Sg.F
        'She used to go to sleep.'   Urdu

    b. vo   so **dʒa-ti**   **vati**   tʰ-i
        Pron.3.Sg.Nom sleep go-Impf.F.Sg go.Redup be.Past-Sg.F
        'She used to keep going to sleep (at inopportune moments).'   Urdu

(35) a. vo   so **rɑh-i**   tʰ-i
        Pron.3.Sg.Nom sleep Prog-F.Sg be.Past-Sg.F
        'She was sleeping.'   Urdu

    b. *vo   so **rɑh-i**   **vahi**   tʰ-i
        Pron.3.Sg.Nom sleep Prog-F.Sg Prog.Redup be.Past-Sg.F
        'She was sleeping.'   Urdu

Another difference which sets light verbs apart from auxiliaries as well as main verbs is that light verbs exhibit subtle lexical semantic differences in terms of combinatorial possibilities with main verbs. These differences are not necessarily predictable (unlike, for example, the restriction that progressives tend to be incompatible with stative verbs). An example from Urdu is provided in (36), an example from Mandarin Chinese in (37).

(36) a. nadya   mɑkan   **bɑna paṛ-i**
        Nadya.F.Nom house.M.Nom make fall-Perf.F.Sg
        'Nadya fell to building a house.'   Urdu

    b. ??nadya   mɑkan   **bɑna ʊʈh-i**
        Nadya.F.Nom house.M.Nom make rise-Perf.F.Sg
        'Nadya rose to building a house.'   Urdu

(37) a. guan diao/*shang shouyinji
        shut fall/ascend radio
        'switch off the radio'   Mandarin Chinese

    b. guan shang/?diao men
        shut ascend/fall door
        'close the door'   Mandarin Chinese

In conclusion, in Urdu we again have a set of light verbs which can be identified by a number of distinct distributional properties (phonological, syntactic, semantic). Light verbs can thus clearly be established as a distinct syntactic category in a number of languages. As was the case with the tests for monoclausality, the relevant tests differed from language to language, but a close look at the language internal structure brought out very precise criteria for differentiating light verbs from main verbs or aspectual auxiliaries.

Despite the distributional differences that set light verbs apart from main verbs and auxiliaries, they are always form identical to a main verb in the language. This fact still needs to be accounted for. Before attempting to do so in section 5, the next section presents pertinent diachronic data.

4   Light Verbs and Change

The previous sections have established that light verbs contribute to a semantically complex but syntactically monoclausal predication and that they form a syntactically distinct class. This section takes a look at some of the available diachronic evidence and at what it suggests about the relationship between main verbs, light verbs and auxiliaries.

A quick look through the literature on syntactic change with respect to light verbs reveals a dearth of relevant discussions, with the recent exception of Bowern (2008), who provides a fairly comprehensive survey. Most approaches have focused on auxiliaries and/or modals (e.g., Lightfoot 1979, Plank 1984, Warner 1993, Denison 1993, Roberts 1993, Roberts and Roussou 1999, Roberts and Roussou 2003). Harris and Campbell (1996), for example, formulate the principle in (38), which at first sight would appear to apply to light verbs. However, a closer inspection of the material cited in support of the principle shows that the data set only pertains to auxiliary formation.

(38) The Heir-Apparent Principle (Harris and Campbell 1995:193)

When the two clauses are made one by diachronic processes, the main verb governs the syntax of the reflex clause.

One approach which takes light verbs into account explicitly is Grammaticalization Theory. As shown in (39), Hopper and Traugott (1993:108) include vector or light verbs as an optional stage on the grammaticalization cline.[6]

(39) full verb > (vector verb) > auxiliary > clitic > affix

The inclusion of light verbs is due to a study on Hindi and Marathi by Hook (1991, 1993) who analyzes the light verbs as a stage in aspectogenesis which will ultimately give rise to a type of aspectual auxiliary (see also Hook 2001 for a broader examination of the diachrony of light verbs in the South Asian context). However, there are several problems with this assumption. For one, rather than constituting a subclass of the existing auxiliaries, the light verbs interact with all of the other auxiliaries of the verbal paradigm (Butt and Geuder 2001). For another, the semantic

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[6]The term *vector verb* is due to Pray (1970) and has been applied to describe light verbs in South Asian languages.

contribution goes beyond that of the purely functional tense/aspect kind. While light verbs generally do signal some kind of boundedness or telicity or causation (crosslinguistically), they also go beyond that and signal volitionality, benefaction, forcefulness, surprise, etc. The degree to which they signal this differs from language to language, but this component always seems to be present (again, see Butt and Geuder 2001 for more discussion).

Furthermore, the notion of aspectogenesis runs counter to an observable diachronic fact, which is that light verbs always remain form identical to a main verb in the language. This is very much unlike what is found with auxiliaries (and modals to some extent), which start out as a version of a main verb (e.g., the English *going* future) but then quickly develop away from the main verb in form, function and meaning (e.g., English past tense *-d* from *do*). This contrast is discussed in some detail in Butt and Lahiri (2003) with respect to data from Urdu and Bengali 'be' and 'go' and is confirmed by the discussions in Brinton and Akimoto (1999), which examine the origin and use of English N-V complex predicates as *take a bath*.

The conclusion Traugott (1999) reaches on the basis of the available evidence is that English N-V complex predicates have been native to the language at least since Old English (the furthest one can look back) and that though the middle ages saw a marked increase in their use, no other concomittant signs of grammaticalization can be identified: the light verbs do not diminish in form (e.g., become auxiliaries or affixes) and they do not lead to the development of functional categories (Traugott 1999:257). Indeed, the overall system appears to be quite stable given that the number and type of light verbs involved remains relatively constant and given that their ranking in terms of frequency of use remains stable with respect to each other (e.g., *give* consistently comes third in terms of frequency of use since early modern English). As is crosslinguistically typical, the light verbs are shown to contribute aspectual nuances as well as other types of semantic information. For example, the use of *give an answer* as opposed to the simple verb *answer* appears to signal that the action was done deliberately (Traugott 1999:253).

4.1   Tracing Light Verbs through the Ages

In order to drive the point home that light verbs do not appear to be subject to historical change in the same way that auxiliaries are, this section traces light verbs through some of the available historical evidence for Indo-Aryan. This language family has a historical record of about 3000 years. The discussion on this section is based on Butt and Lahiri (2003), who investigate Urdu and Bengali V-V complex predicates and contrast the available diachronic data with that of auxiliaries based on 'be' and 'go' in the modern languages.

There is no precise dating for Indo-Aryan. However, the oldest attested form of the language is thought to go back to 1200 BCE. Vedic is generally dated until about 600 BCE. Epic and Classical Sanskrit fall into the time from 600 BCE to 200 CE. Together with Vedic, these are referred to as Old Indo-Aryan. Middle Indo-Aryan includes Pāli (mainly preserved in the form of Buddhist texts), several Prākrit languages (which include non-standard dialects of Sanskrit), Apabhramśa, and inscriptions of the Emperor Aśoka (270–232 BCE). The Middle Indo-Aryan period stretches from about 200 BCE to 1100 CE. The languages of the period from then on are commonly referred to as New Indo-Aryan. As of 1100 CE distinct ancestors of the modern languages such as Old

Hindi, Old Bengali or Old Marathi are readily identifiable.

It is generally agreed (e.g., Hook 1991, Tikkanen 1987, Hendriksen 1944, Chatterji 1926) that the ancestral construction of the modern V-V complex predicate is the Sanskrit "gerund" or "absolutive" in *-tvā(ya)*, or *-ya/yā*. These suffixes served as derivational morphemes which resulted in an indeclinable participle (e.g., Whitney 1889:345–360). In the more modern literature, this participle has also sometimes been referred to as a *conjunctive participle* (CP).

The use of the *tvā* participles was manifold and varied. Tikkanen (1987) uses the constructed example in (40) to illustrate the various possible translations found in the literature with respect to the *tvā* participle. (41) shows an actual example from Vedic (an older stage of the language). One of the uses Tikkanen lists is comparable with the modern complex predicate in that the literal meaning of 'go' is not expressed.

(40) a indram   ārabhya cara
        Indra-ACC grasp-GD go-IMP.2SG
        'Having taken hold of Indra, move!'
        'Keep yourself to Indra!   (Tikkanen 1987:7)   Sanskrit

    b. ime   ta   indra   te   vayam
       Pron.Dual Dem.Pron.3.Sg Indra.Voc.Sg Pron.2.Sg.Gen Pron.1.Pl.Nom

       puruṣṭuta   ye   tvārabhya   carāmasi
       much-praise.PP.Voc.Sg Rel.Pron Pron.2.Sg.Acc-grasp.Gd go.Pres.1.Pl
       'We here are yours, O ever-praised Indra, who wander about having taken hold of you/who constantly keep ourselves to you.'   Vedic
       (Ṛgveda I.57.4; Tikkanen 1987:175)

In contrast to Vedic and Sanskrit, which provide hints of a light verb use, but no conclusive evidence, complex predication is clearly identifiable in Middle Indo-Aryan (Hendriksen 1944, Hook 1991, 1993, 2001). In particular, the Pāli examples in (41) both involve the verb 'give' as a finite verb which combines with the participle of 'make'. For both the sentences in (41) it would be strange to assume that the meaning should be rendered as: "having led her to the hermitage, having made a fire, he gave (it) (to her)". Rather, the complex predicate benefactive reading given in the glosses is more appropriate.

(41) a. … assamapadaṃ ānetvā aggiṃ   **katvā   adāsi**
        hermitage.Acc lead.Gd fire.Acc.Sg make.Gd give.Impf.3.Sg
      '… brought her to his hermitage and made a fire for her'
      ['having brought (her) to the hermitage, made a fire (for her)']   Pāli
      (Jatāka Tales, Sri Lanka (Hendriksen 1944:134))

    b. daruni āharitvā aggiṃ   **katvā   dassati**
       sticks bring.Gd fire.Acc.Sg make.Gd give.Fut.3.Sg
      'Bringing wood he'll make a fire (benefactive use).'   Pāli
      (Trenckner 1879:77, cited by Hook 1993:97)

Turning to more modern times, examples of complex predicates can be found in Old Bengali in the Caryapad (950–1550 CE), which consists of 46 complete songs and one incomplete song of 6 lines by 24 different poets. Here the finite verbs 'take' ((42a)) and 'give' ((42b)) cannot be interpreted in their main verb sense, but must rather be analyzed as light verbs which signal completion, much as is done in the modern language.

(42) a. cauṣatʰi koṭʰa **guṇ-iā lehu**
    sixty-four rooms count-Gd take
    'count sixty-four rooms (for yourself)'
    (Caryapad 12, Mojunder 1973:248)   Old Bengali

   b. bājule **dila** moha-kakʰu **bʰaṇ-iā**
    Bajula.Obl give.Past.3.Sg rooms of illusion count-Gd
    'Bajula counted the rooms of illusion (for his disciple).'
    (Caryapad 35, Mojunder 1973:248)   Old Bengali

Examples from Old Hindi are illustrated by (43) and (44). McGregor (1968:209–213) explicitly notes that the V-V constructions in (43), which are found in Braj Bhāṣā prose from around 1600 CE, were used much as in modern Hindi.

(43) a. … **cori letu** hai
    steal.Gd take.Impf be.Pres.3.Sg
    '… (he) steals'   Old Hindi

   b. **kāḍhi lei**
    pull out.Gd take.Perf
    '(he) pulled out (with effort)'   Old Hindi

   c. samudrahiṃ **nāṣi jāta** haiṃ
    ocean.Obj cross.Gd go.Impf be.Pres.1/3.Pl
    '(They/We) cross oceans (completely).'   Old Hindi

(44) **ḍʰũḍẽ diye** suhag kõ
    seek give husband Dat/Acc
    'seeking a husband'   Old Urdu/Punjabi
    (Baba Farid (1173–1266), Verse 114)

Light verb constructions can thus be identified clearly and continually over thousands of years. As was observed for N-V complex predicates in English (Traugott 1999), the syntactic construction itself is relatively stable. While the overt form of the gerundive morphology has changed, the syntactic co-occurrence of a main predicate and an inflected light verb remains constant, as does the choice of light verbs involved (e.g., 'go', 'give', 'take'). Just as in English the light verb is always form identical to a main verb in the language. Light verbs thus appear to be historically stable, very much unlike what has been documented for auxiliaries.

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The available evidence from Indo-Aryan thus points to the idea that light verbs do not enter the grammaticalization cline, i.e., they are not main verbs which have been reanalyzed as light verbs and which are now prone to further reanalysis. In her crosslinguistic survey of the diachrony of complex predicates, Bowern (2008:174) also concludes that so far there has been no evidence that documents the grammaticalization (or reanalysis) of an auxiliary from a light verb.

Section 5 therefore explores an alternative notion which posits that light verbs are intimately connected to their main verb counterpart in the lexicon. They are so intimately connected that one can assume just one lexical entry which can give rise to both light and main verb meanings. In terms of the grammaticalization cline, this idea plays out as shown in (45).

(45) $\boxed{\begin{array}{c} \boxed{\text{main verb}} \\ | \\ \boxed{\text{light verb}} \end{array}}$ > auxiliary > clitic > affix(es)
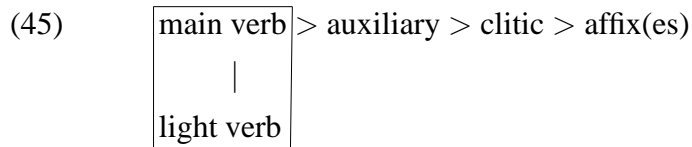
Note that I assume one underlying lexical entry that can give rise to distinct syntactic elements. This is similar to the idea that deverbal nominalization operates on the same lexical entry which gives rise to inflected main verbs, except that derivational morphology tends to be involved with nominalization (but cf. zero nominalization in English). In the case of light verbs, no derivational morphology is involved, rather the difference in syntax and semantic interpretation arises out of the complex predicate construction.

Whether a given verb predicates as a light or as a main verb is determined by the syntactic environment (section 5). In addition, as discussed in Butt and Lahiri (2003), we assume that auxiliaries are derived from the main verb, not the light verb. That is, we assume that light verbs are inert for the purposes of historical change. This idea accounts for the fact that a light verb always corresponds to a form identical main verb in the language and that light verb constructions do not give rise to auxiliaries and modals.[7]

4.2   The Connection to Preverbs/Particles

Before proceeding on to the final section discussing the lexical representation and semantics of light verbs, this section explores the relationship between light verbs and preverbs/particles. This issue is often raised in connection with South Asian light verbs, as the semantics that are described are reminiscent of the semantics associated with Germanic preverbs/particles like German *auf* in *aufessen* 'eat up' or English *out* as in *throw out*.

Old Indo-Aryan employed a set of preverbs which in combination with the main verb gave rise to a complex range of meanings. These meanings are similar in nature to the contribution of the light verbs in V-V complex predicates and to that found with Germanic verb particles. (47) provides a fairly complete list of Sanskrit preverbs (see e.g., Whitney 1889:§1077 for a complete list with their basic meanings), (46) provides some examples of usage.

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[7]Light verbs may, however, be prone to lexicalization or idiomaticization along with the main predicate. This issue is also addressed in Brinton and Akimoto (1999) where it is noted that some N-V complex predicates in English have been reanalyzed as idioms.

(46) a. pariṇīya
around.lead.Gd
'having led around' (Sanskrit)

b. vi-kṛ
apart-do
'scatter' (Sanskrit)

The modern Indo-Aryan languages, among them Urdu/Hindi and Bengali have lost these preverbs completely. Hook (1991, 1993, 2001) and Hook and Pardeshi (2001) furthermore document an increase in light verb use in South Asian languages since the middle ages. These two observations taken together raise the immediate question whether these developments are related: could the more frequent use of V-V complex predicates in modern Indo-Aryan be tied to the loss of preverbs?

(47)

Sanskrit Preverb	**Rough Meaning**
ati	across, beyond, past, over, to excess
adhi	above, over, on, on to
anu	after, along, toward
antar	between, among, within
apa	away, forth, off
api	unto, close upon, on
abhi	to, unto, against (often with implied violence)
ava	down, off
ā	to, unto, at
ud	up, up forth, out
upa	to, unto, toward
ni	down, in, into
nis	out, forth
parā	to a distance, away, forth
pari	round about, around
pra	forward, onward, forth, fore
prati	in reversed direction, back to, back against, against, in return
vi	apart, asunder, away, out
sam	along, with, together

Deo (2002) provides a partial answer to this question by tracing the development of preverbs in Indo-Aryan. She shows that in Vedic (the oldest form of the language), the preverbs are associated with canonical directional or adpositional meanings. However, for some preverbs, the meanings are less transparent (non-compositional) and the use of these preverbs is associated with semantic notions of forcefulness, completion, inception, etc. This is immediately reminiscent of the semantics associated with the modern light verbs.

In Sanskrit, the preverbs can be divided into two categories: those that have a literal prepositional (directional) semantics and those that have a non-transparent semantics. Interestingly

enough, the former are all multisyllabic, while the latter are monosyllabic. This is consonant with general trends observed in grammaticalization: forms which are less substantial are more prone to grammaticalization.

In Middle Indo-Aryan (Prākrit), the preverbs are reanalyzed as either verbal prefixes or part of a monomorphemic root. There is a marked decline of preverbs which have a strictly directional or prepositional semantics. In the modern languages, the only surviving preverbs are those that have been reanalyzed as a part of the verbal root. For the native speaker, these are not identifiable as separate preverbs: they simply appear to be a part of the root.

Deo's (2002) study thus makes a plausible case for the idea that the use of light verbs increased as preverbs fell out of the language. An explicit connection between the semantics of light verbs and the semantics of preverbs/particles is made by Ramchand (2008).

4.3   Summary

In sum, though there seems to be a correlation at least in Indo-Aryan between the demise of preverbs and preponderance of light verbs, the light verb construction, i.e., the possibility of forming complex predicates with light verbs seems to be stable over the ages. Crosslinguistically, there is no attested evidence so far by which light verbs have evolved into auxiliaries. Indeed, unlike auxiliaries, light verbs are always form identical to the main verb they are related to. The next section attempts to posit an explanation for why this is so.[8]

5   The Lexical Semantics of Light Verbs

The paper so far has surveyed what I see as central properties which must be accounted for in any analysis of light verbs. For one, a light verb is always form identical with a main verb in the language. This form identical light verb enters into a joint complex predication with an element that furnishes the main predicative content. The complex predication is syntactically monoclausal and the contribution of the light verb is not necessarily transparent.

Light verbs are unlike main verbs in that they are dependent on another predicative element. That is, they seem to modulate or structure a given event predication, but not supply their own event. This modulation can be in terms of providing more information about the typical parts of an event: who did the causation, what the result was, whether the event was bounded or whether it was benefactive, sudden, agentive/volitional, accidental, etc.

A light verb does not, however, situate the main event predication with respect to temporal or aspectual information. That is, it does not have the functionality of a tense or aspect auxiliary, which situates a given event with respect to speech and reference time. Light verbs also need

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[8]Note that the expression of causation also seems to be remarkably stable. The Urdu causative morpheme has undergone some phonological changes since Vedic, but other than its surface appearance, it has remained remarkably the same since Vedic (similar patterns with similar verb classes, etc.). In Latin,, causation was expressed periphrastically and this is still the case in its Romance descendents. It would therefore also be interesting to conduct an in-depth crosslinguistic study of the diachrony of causative complex predicates, be they morphological or syntactic (periphrastic).

to be differentiated from passive auxiliaries. In general, light verbs *add* information to an event predication. This stands in contrast to phenomena such as passives, reflexives or middles, which operate on an existing argument structure in such a way as to provide a different perspective on the participants of the events, i.e., express *voice*.

Detailed argumentation on how complex predication differs from aspectual auxiliaries, modality, reflexivization or passivization goes beyond the scope of this paper. However, I believe that a careful look at the phenomena in languages will always show that light verbs have a very different syntactic distribution, semantic impact and diachrony than aspectual and passive auxiliaries, modals and reflexives.

With respect to the diachrony, the observation is that light verbs are always form identical to a corresponding main verb in the language and that there is no attested instance of a light verb grammaticalizing or being reanalyzed further (though lexicalization or idiomaticization may occur). As argued in Butt and Lahiri (2003), this indicates that light verbs and their corresponding main verbs stand in a very tight relationship towards one another. Recall from the introduction that one common way to view light verbs is that they are *semantically bleached* versions of main verbs. This implies a historical relationship in which one is derived from the other, or, at the very least, a synchronic derivative relationship. In contrast, what Butt and Lahiri (2003) suggest is that the lexical specification of a handful of verbs (somewhere between 5 and 20) crosslinguistically allows for a use as *either* a main verb *or* a light verb. Some common examples crosslinguistically are the verbs for 'come', 'go', 'take', 'give', 'hit', 'throw', 'give', 'rise', 'fall' and 'do/make'. One can think of this set of verbs as *passepartouts*: their lexical semantic specifications are so general that they can be used in multitude of contexts, that is, they "fit" many constellations.

Concretely, Butt and Lahiri (2003) posit one underlying underspecified lexical entry that gives rise to both main and light verb usages. Exactly how the lexical semantic information in this underspecified entry should be coded is a tricky question, just as most research into the appropriate lexical semantic representations remains tricky. Light verbs do not predicate their own event; rather they hook onto another event predication and deploy their lexical content dependently.

Much of the work around lexical semantics involves lexical semantic decomposition (e.g., Jackendoff 1990) and the postulation of subevents (e.g., Hale and Keyser 1993, Levin and Rappaport 1998, Ramchand 2008). With respect to light verbs, given that they clearly do not instantiate a full event predication of their own and given that they often predicate about the causation or result (boundedness) of an event, one intuitive avenue of analysis is that light verbs correspond to, or predicate parts of an event, i.e., subevents (e.g., Ritter and Rosen 1993, Butt 1995, Butt and Ramchand 2005). However, as Tantos (2008) points out with respect to English light *have* as in *John had his students walk out of class.*, analyses which work with event semantics in combination with lexical decomposition are problematic since languages do not seem to compute cleanly with respect to events and subevents. Tantos instead proposes to use Segmented Discourse Representation Theory's (SDRT) notion of labeling certain segments of discourse and of clauses and then computing with these labels. He works this out concretely with respect to English light *have*, which has been analyzed as a light verb by Ritter and Rosen (1993). Since English light *have* can give rise to both experiencer (*John had his dog die on him.*) and agentive (*John had his dog eat the mouse.*) readings, Tantos posits an underspecified lexical entry for *have*. This underspecified

entry is then specified and disambiguated through an interaction with pertinent information within the clause and within the immediate discourse context.

It would lead too far afield to provide details of Tantos' analysis here, or to attempt to apply his ideas to the representation of light verbs crosslinguistically. In terms of this paper, the following will have to suffice. Along with Butt and Lahiri (2003), I assume one underspecified underlying entry for light verbs and their main verb counterparts. The content of this entry will be not an argument structure, as is generally assumed (i.e., as in the representations in section 2.3), but a loose collection of information along the lines of Dowty's (1991) Proto-Role entailments. Sample entries are provided in (48) for 'give', 'do' and 'fall'.

(48)

give	Verb-Stem	agentive, some entity (concrete or abstract) is to be transferred to a recipient/goal
do	Verb-Stem	agentive activity, could involve some entity (concrete or abstract)
fall	Verb-Stem	non-agentive

In addition to the type of information in (48), the verb entries are associated with world knowledge. That is, what a falling event usually entails, namely that it is involitional, that it is sudden, that it is downward. Or what a giving event usually entails: that it is usually for the benefit of somebody (but not necessarily) and that it generally is a considered action (weighing the pros and cons). These further pieces of information may influence the argument structure in terms of what kinds of arguments are realized in the syntax. However, they are also likely to provide that extra bit of semantic predication which is the hallmark of light verbs as in (6), namely the information whether a given action is sudden, benefactive or the responsibility of the actor (cf. Butt and Geuder 2001 for a case study with respect to 'give'). And since it is information coming out of our world knowledge, it is also defeasible, i.e., not every predication with the light verb 'give', for example, will necessarily always have the same range of semantic connotations.

When the verb enters the syntax as a main verb, it predicates as a full event with a full range of argument participants. These are determined by the collection of information associated with the verb stem, as in (48) (see Butt and Tantos 2004 for such a model involving Petri Nets). When the verb enters the syntax as a light verb, i.e., is slotted into the distributional space for light verbs in a language, then its lexical semantic content must combine with a full event predication. That is, argument merger as outlined in section 2.3 must take place, as well as a modulation of the main event semantics by the information coming from the light verb. Thus, depending on the syntactic role of the verb, the information contained in it is deployed differently.

Not all verbs have such underspecified and flexible entries. Rather, as already mentioned, we assume that such *verbal passpartouts* are confined to a handful of verbs (somewhere between 5 and 20). Interestingly, we have been able to show for German that such flexible verbs, which can give rise to both main and light verb uses, are also distinguished by a neural brain response that sets them apart from verbs which have no light verb counterpart (Briem et al. 2008). This is the case even when they are presented to subjects in isolation, i.e., *kommen* 'come' vs. *rennen* 'run'.

6 Conclusion

This paper has surveyed a number of differing complex predicates and light verbs across languages. Complex predicates were defined as containing two or more predicational elements which jointly predicate within a monoclausal structure. The evidence for monoclausality was seen to be language dependent. Similarly, the paper argued that light verbs must be acknowledged as a separate syntactic category crosslinguistically, but that the precise syntax of light verbs differs across languages. The category light verb must be established according to language internal tests.

The function of light verbs is to modulate the event predication of a main predicator in the clause. Different light verbs will do so in different ways and some of the semantic contributions are quite subtle. This is in part because of the flexible interpretation of the underlying lexical semantics. The verbs which allow light verb readings have lexical semantic specifications that are of a very general nature. This allows them to appear in a wide variety of syntactic contexts. The idea that light verbs and their corresponding main verbs are derived from one and the same underlying representation accounts for the fact that light verbs are always form identical to a main verb counterpart in the language and that they are stable with respect to historical change.

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