VERBAL CLITICS IN ROLE AND REFERENCE GRAMMAR

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Abstract

Purpose of the study: The present study analyses the interplay of semantics, syntax and pragmatics in Pashto clauses containing verbal clitics (VC) in the light of the Role and Reference framework. It particularly focuses on the relational aspect of the clause. The lexical representation of the predicating elements is presented.

Methodology: The four projections of a Pashto clause i.e., constituent projection, operator projection, logical structure projection and focus structure projection are analyzed in the Role and Reference Grammar theoretical framework.

Main Findings: The findings of the study show that VCs are different from both agreement markers and pronouns with some shared properties. A linking algorithm is proposed for Pashto from semantics to syntax and syntax-to-semantics based on the activation level of the referents.

Applications of this study: The study analyses the discourse pragmatic conditions responsible for the occurrence of VCs in Pashto clause terms of role and reference grammar.

The novelty of this study: The study has novelty in the sense that it describes the structure of the Pashto clause from a discourse pragmatic perspective which has never been investigated in previous studies. The study shows the movement is triggered by both actor (in present) and undergoer (in past) along with syntactic neutralization. The VCs are different from both agreement markers and pronouns with some shared properties identifying dative arguments like arguments and causing doubling like agreement markers and so, are linked to an 'agreement index' node.

Keywords: Pashto, VCs, RRG, Pronominal Features, Projections, Linking Algorithm.

INTRODUCTION

The present study analyzed the verbal clitics in the light of role and reference grammar theoretical framework. The main concern of this study was to present a discourse-pragmatic account of the phenomenon of clitic doubling in Pashto, more specifically, verbal clitic (VC) doubling. There are two types of clitics in Pashto i.e., second position clitics and verbal clitics. This particular study focuses on verbal clitics which have not yet been analyzed in this language and clitic doubling is a property specific to these verbal clitics, when the verbal clitic in a clause is doubled by a dative argument in a single clause. This study was motivated by other studies like Tegey (1977) and Roberts (2000), but it differs from their studies in three ways. In the first place all other studies about clitics in Pashto are mostly about second position clitic; while this particular study is about another set of clitics i.e., VC, that have different syntactic and semantic/pragmatic properties. Secondly, all the previous studies are about clause-internal syntax (including the studies focusing on the phonological aspects of second position clitics); while this particular study points to the discourse context responsible for the phenomenon following Role and Reference Grammar Framework. Thirdly, their studies exploit a set of elicited examples in the language; the claims in the present study are supported by examples from a text and naturally occurring discourse. The present study tried to achieve the following objectives.

1) To find out what triggers movement in present and past.

2) To find out syntactic neutralization like other ergative languages.

3) To find out the grammatical status of VCs.

4) To analyze the 'split marking' in Pashto.

5) To analyze VCs in terms of Role and Reference Grammar.

LITERATURE REVIEW

Pashto is spoken in Afghanistan and Pakistan (Iqbal & Rahman, 2016) having at least five dialects in Pakistan (Rahman, Bukhari, Ali, Din, & Khan, 2020). Pashto speech community through dynamic has vital cultural values and expectations (Rahman, Rahman, Jan, Bukhari, Ahmad, Bibi, 2021). The order of the basic and neutral constituents in a Pashto sentence is Subject -Adverb - Indirect Object - Direct Object – Verb – Aux(Khan, Khalid & Rahman, 2020). The indirect object preceding the direct object in Pashto always appears in the dative case (Rahman, & Bukhari, 2014). Pashto referents appear in different forms, ranging from full NPs to phonologically reduced clitics (Rahman, Din, Iqbal, Rashid, 2017), there are two types of clitics in Pashto. Phonological reduction happens in the structure containing

complex predicates, postpositional phrases and VCs (Khan, Rahman & Ali, 2020). The verbal clitics (VC) are clitics phonologically attached with a verb or with a postposition. The clitics are phonologically deficient grammatical categories bound to be attached to the neighbouring host word (Trask, 1996). The cliticization is the attachment of the weak pronoun (phonologically deficient form in the form of verbal clitics in Pashto) with verbs or postpositions showing agreement features for a person. The verbal clitic identifies the person features of the antecedent cognitively accessible in the context of the discourse (Rahman, Din & Iqbal, 2017). Two aspects of discourse and pragmatics influences clause structure in Pashto. These aspects are related to the pragmatic relations or with pragmatic relations of referents in the clause. One of these aspects (of discourse and pragmatics) is concerned with the information conveyed or with the focus structure among the available referents in the clause (Rahman, Anees & Khan, 2020).

METHODOLOGY

The study was descriptive and analyzed Pashto clause structure containing VCs in the light of Role and Reference Grammar (RRG). It is a structural-functionalist model. It takes a cognitive and communicative perspective to language analysis (Shimojo, 1995; Van Valin, 2005; Belloro, 2007, P. 154; Ignatova, 2008; Mairal, et al. 2012). It has both typological and theoretical concerns. It takes into account the typological structural diversity of languages to formulate a linguistic theory. On the other hand, the theory recognizes the significant role of semantics and pragmatics; the interplay of syntax, semantics and pragmatics in different grammatical systems is taken into account. The representation of clauses includes the representation of all these factors. The interaction of structure, meaning and communicative function is established; to present syntactic features purely is not appropriate (Van Valin, 2005; Belloro, 2007; Ignatova, 2008). So, RRG does not take for granted the notions from the more familiar languages and tries to find out the validity of grammatical relations cross-linguistically (Foley & Van Valin, 1977, 1984; Van Valin, 1977a, 1981, 2005).

The model explains what a speaker says (semantic to syntax) and what a hearer comprehends (syntax to semantics) with the help of a bidirectional mapping between syntax and semantics. It claims that the morphosyntactic forms can be analyzed only concerning the particular context where they are used (Shimojo, 1995; Belloro, 2007). This is called the linking algorithm mapping from syntax to semantics and semantics to syntax representations. The linking algorithm is a set of bidirectional rules governing the interface between the semantic and syntactic representations of language use (Van Valin, 2005; Belloro, 2007, Van Hooste, 2018).

SYNTACTIC REPRESENTATION

Linking

Algorithm

DISCOURSE-PRAGMATICS

SEMANTIC REPRESENTATION
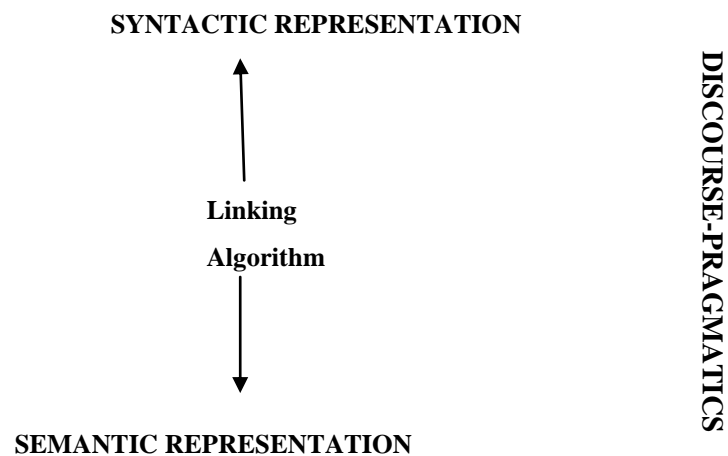
Figure 1: The organization of Role and Reference Grammar (Van Valin, 2005; Belloro, 2007)

The above figure shows that there are no abstract syntactic representations. There is a direct mapping between the semantic and syntactic representations. The syntactic representation is linked to the semantic representation through a linking algorithm. The discourse-pragmatics component (the realization of information structure) has a role in linking the semantic and syntactic representations of the clause. But the role of the information structure varies across languages (Buysse, Housen & Pierrard, 2017; Van Valin, 2005). The structure of a clause in the role and reference grammar has four projections. These projections include constituent projection, operator projection, logical structure projection, and focus structure projection (Shimojo, 1995).

The syntactic structure of the clause in role and reference is based on two general principles. The first of these concerns with the universal features of the clause without imposing one particular language when there is no evidence for them in these languages. The second principle concerns comparing the comparable structures in different languages in comparable ways. So, RRG identifies the differences in different languages and does not mould the theory in favour of more familiar Indo-European languages. The structure of the clause in RRG is represented in a semantically-based model called the 'layered structure of the clause' (LSC) of grammatical units (Bohnemeyer & Van Valin, 2017; Belloro, 2007).

The present study highlighted only those aspects of Role and Reference which are directly relevant to the phenomenon under study. Some important features of the theory are not included, being not relevant in the present study. Only those

aspects of the theory concerned with the interface of syntactic, semantic and pragmatic representations and so having some role in the phenomenon of clitic doubling in Pashto were highlighted in the light of RRG. Every theory deals with two fundamental aspects of clause structure. These are the RELATIONAL and NON-RELATIONAL aspects of the clause. The non-relational aspect of the clause is concerned with the hierarchical organization of sentences, clauses and phrases. The relational aspect is concerned with the relation between argument(s) and predicate. This relation may be semantic, syntactic or pragmatic in nature or a combination of all three (Van Valin, 2005). The structure of the clause in RRG called LAYERED STRUCTURE OF THE CLAUSE (LSC) is the non-relational aspect of the clause. This structure is based on two contrasts of predicate and non-predicating elements found in all languages. The first contrast is the contrast between the predicate and non-predicating elements; the second contrast is the contrast between the non-predicating elements, i.e., whether they are arguments or non-arguments (Bohnemeyer & Van Valin, 2017; Van Valin, 2005).

FINDINGS AND DISCUSSION

Results and Discussion

The essential components of the layered structure of the clause are the '*core*' and an optional '*periphery*'. The *core* consists of '*nucleus*' and '*arguments*'. The *nucleus* contains the verb and another predicting element, while the arguments of the predicate can be the direct or oblique arguments. The periphery of the clause contains the potential adjuncts. These are the universal aspects of the clause. The semantic and syntactic units of the clause are given in the following table and figure (King, 2010, Van Valin, 2004, 2005; Belloro, 2007; Ignatova, 2008).

Table1: Semantic units underlying the syntactic units of the layered structure of the clause

Semantic Element(s)	Syntactic Unit
Predicate	Nucleus
Predicate + Arguments	Core
Predicate + Arguments + Non-arguments	Clause (Core + Periphery)
Arguments in semantic representation of clause	Core Arguments
Non-arguments	periphery
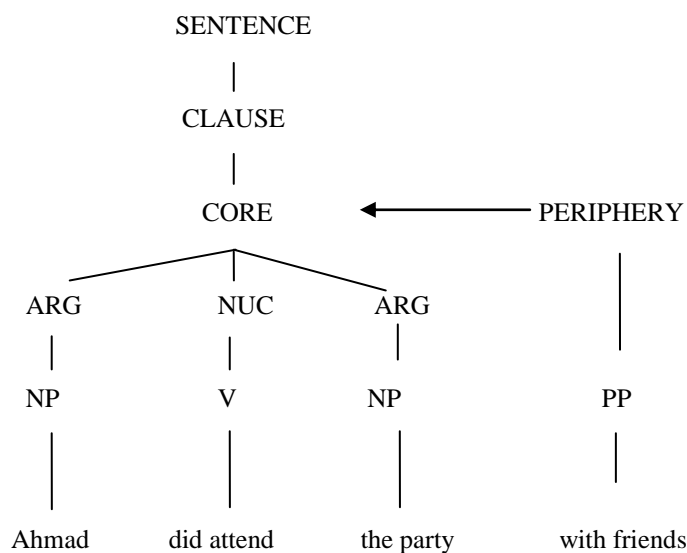
Figure 2: Showing Constituent projection a transitive clause

The auxiliary verb 'did' above is not attached to anything, being not a part of any of these. It is the morphological realization of the tense OPERATOR which is a part of the operator projection of the clause. Pashto is a verb-final language, so, the nucleus of the core comes at the end, the arguments precede the nucleus and the periphery of the clause may come before the predicate intervening between the nucleus and arguments of the core. The above figure (figure 2) is the simplified layered structure of an English clause to present a preliminary structure of the clause. The same clause has the following structure (figure 3) in Pashto.

There is no verb phrase in the layered structure as to refer and predicate are universal and the predicate in the nucleus is not necessarily a head, not restricted to a particular category. The most common category is verb but adjectives, nominal phrases, and ad positional phrases can be the predicate in the nucleus.
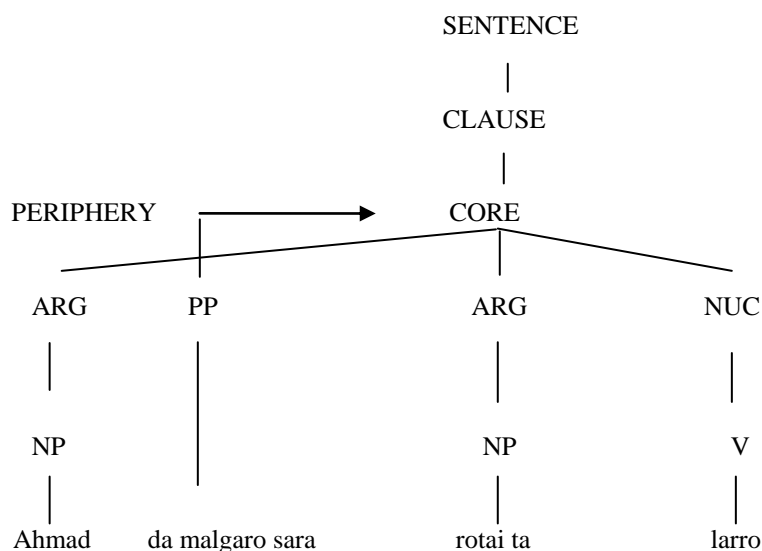
Figure 3: Showing Constituent projection a Pashto transitive clause

RRG uses the concept of 'privileged syntactic argument (PSA) for the traditional concept of 'subject' (Allen, 2011). In transitive constructions, the neutralization of actor and undergoer happens in active voice but it is again only undergoer in the passive versions. From the above discussion, we can generalize that there is restricted neutralization in Pashto in intransitive active constructions but no neutralization in passive constructions (including both transitive and intransitive constructions). The syntactic neutralization, in Pashto, is nearer to other ergative languages like Kalkatungu language, an Australian Aboriginal language (Blake, 1979), i.e., [S, U_T, d-S][1], where the neutralization is restricted because the undergoer can be the privileged syntactic argument in more constructions than the actor in equal types of construction.Pashto, having both accusative and ergative constructions, has the PSA as the actor in accusative constructions and undergoer as PSA in ergative constructions. The following accessibility to PSA is possible across languages with Pashto added. The Privileged Syntactic Argument in Pashto is only a macro role argument like German, Italian, Dyirbal, Jakaltek and Sama. For example, if the so-called subject has the thematic role of the experiencer, it appears as an oblique argument (non-macro role) is present. The verb takes the default agreement marking. It does not show agreement with the subject as is commonly the case in the language. But the same does not happen in past as the object here appears as a direct core argument, the verb agreeing with it.

a)   Maa   la   yakh   kege
        1.SG   DAT   cold,ACC   do.PRES.IMP
        I am feeling cold.

b)   Maa   la   yakh   kedo
        1.SG   DAT   cold.ABS   do.PST.IMP
        I was feeling cold.

Pashto, having both accusative constructions (in non-past) and ergative constructions (in the past), has the following rules for case assignment.

Case assignment rules for Pashto in accusative constructions:

a) Highest ranking core macro role takes the nominative case.

b) Another core macro role takes the accusative case.

c) Non-macro rule direct core arguments take dative as their default case.

Case assignment rules for Pashto in ergative constructions:

a. Lowest ranking core macro role takes the absolutive case.

b. Another core macro role takes the ergative case.

c. Non-macro role direct core arguments take dative as their default case.

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[1] S is the Actor of intransitive and transitive verb, while U_T is the Undergoer of a transitve verb in active voice, while the d-S is the promoted subject in passive voice.

Postposition assignment rules for Pashto

a) Assign to non-Macrororle *y* argument in LS segment:...BECOME/INGR **pred´** (y,z)

In an utterance, the referring expression can have two primary information statuses, i.e., 'Topic' and 'Focus' (Aubrey, 2014; Gundel, 1993).

Analysis of Pashto VC Doubling Construction in RRG

The typological distinction between head marking and dependent marking languages may have a direct bearing on clause structure (Van Valin, 2013; Nichols, 1986). The syntactic relationship is either signalled by the headword or its dependents. Pashto, like Spanish, is a split marking language with no absolute clear-cut categorization. It is a dependent marker language at the level of the phrase where the markers are realized by the dependents of the phrase. In the following phrases, the adjective dependents of the NP are marked but not the head nouns.

a) Danga   khaza

    Tall.F.S   woman

    A tall woman

b) Dang   saray

    Tall.M.S   man

    A tall man

The agreement markers in Pashto show agreement with the direct argument (nominative in present and absolutive in past) with optional doubling of the argument. VCs are different from both agreement markers and pronouns with some shared properties. The dative argument is optional with VCs, unlike dependent marking languages. The VCs are sufficient and if the optional dative argument occurs, they are not appositional adjuncts like the independents arguments in head marking language. The proper arguments, if included, are constituents of the core, not of the clause. While the pronominal features (VCs) are linked to an 'agreement index' node (AGX) inside the nucleus of the core (Belloro, 2007). The layered structures of the following examples from Pashto corpus are represented in the figures.

a) haqeeqat   me   DAR   bayan kro

    Fact   1.SG.CL2.VC   tell.PST.PF

    I told you the truth.

b) paroon   WAR   ghalay   wum

    yesterday   3.VC   go.PST.PF

    I had been there yesterday.
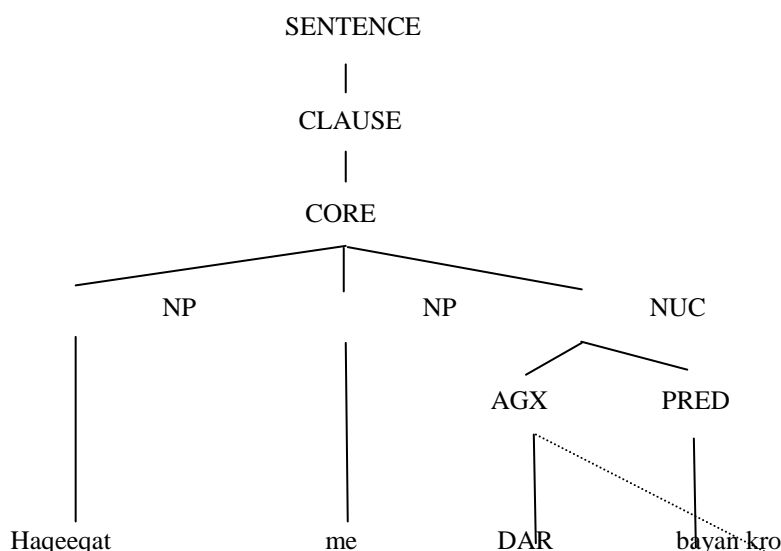
Figure 4: Showing Agreement index node with full NPS

The above example shows that the VC (DAR) is linked to the 'agreement index node' (AGX). This agreement index node is inside the nucleus of the core (it is a part of the core). The VCs in this sense are pronominal features like other agreement markers. The proper argument in the first example can be omitted. We have no proper argument in the second

example. The proper arguments are omitted in this example. The following figure shows the second example configurationally.
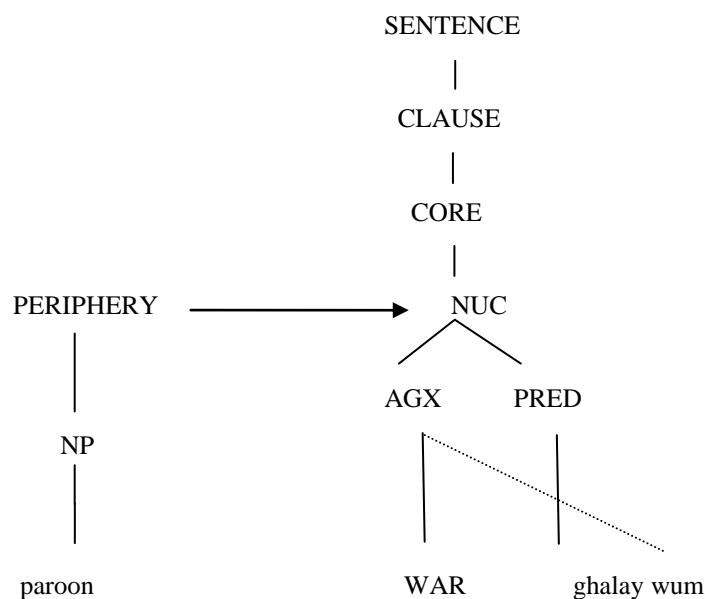
Figure 5: Showing Agreement index node without full NPS

The omitted arguments in the second sentence are omitted from the layered structure of that sentence where bound forms act as arguments. The above examples show that Pashto is a so-called pro-drop 'split marking' language, different from both prototypical 'head marking' and 'dependent marking' languages. The dependents of the verbs can be omitted like head marking language without affecting the grammaticality. These arguments can be included for some grammatical phenomena keeping into account their behavioural reference.

The syntactic representation in the above configuration is determined by a selectional principle. This selectional principle targets language specific inventory of syntactic templates. The following selectional principle is formulated by Van Valin (2005).

152) Syntactic template selection principle:

The number of syntactic slots for arguments and argument-adjuncts within the core is equal to the number of distinct specified argument position in the semantic representation of the core.

The above principle, being universal, operates in all languages but there may be language specific principles alongside this principle. These language specific principles help in linking the semantic representation of the core with the same syntactic slots in the core template. The following language-specific qualification is proposed by Belloro (2007) for languages where the arguments are exclusively realized morphologically. The same qualification can be generalized to Pashto to account for the missing syntactic slot.
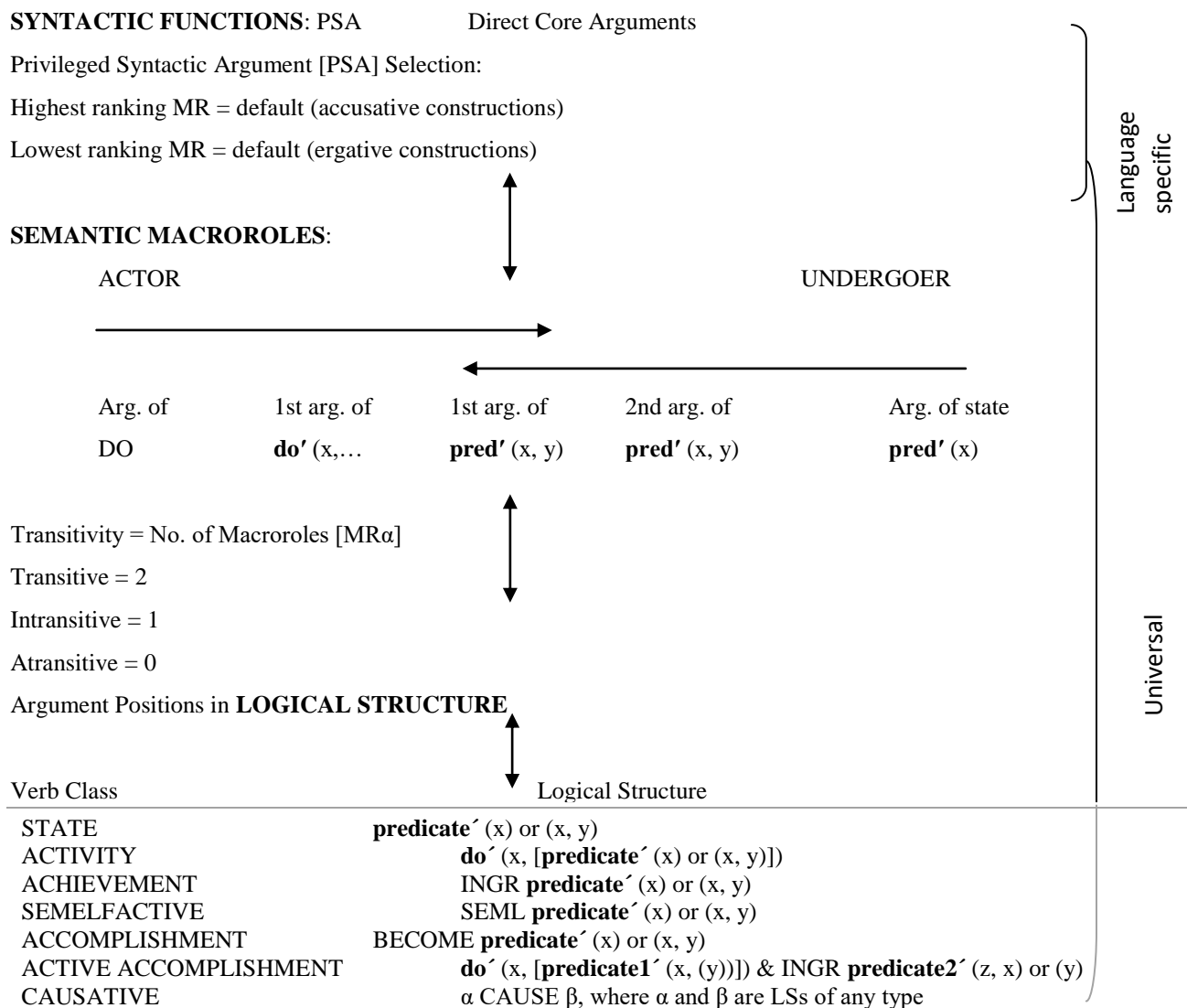
153) Pashto specific qualification:

Argument positions filled exclusively by a bundle of features in the semantic representation of the core do not require syntactic slots in the core template.

The above universal principle with the Pashto specific qualification specifies the syntactic inventory of split marking languages containing a core template that includes the agreement index node.

The below figure shows that cross-linguistic variation is greater in the syntactic phase of linking than the lexical phase of the linking. The variability in the lexical phase is concerned with the role of animacy in macro role assignment, variable undergoer selection in the language and the pattern for undergoer selection (whether the language has a primary object pattern or direct-indirect object pattern). In Pashto, the last area (pattern of selecting undergoes) characterizes the variation in the lexical phase. This linking is done through the linking algorithm.

These linking algorithms are bidirectional, linking the semantic algorithm to syntactic algorithm and syntactic algorithm to semantic algorithm, representing the comprehension and production side of language processing. The 'linking algorithm' is the rules governing such relations which are governed by a 'completeness constraint' (Van Valin, 2005).

SYNTACTIC FUNCTIONS: PSA   Direct Core Arguments

Privileged Syntactic Argument [PSA] Selection:

Highest ranking MR = default (accusative constructions)

Lowest ranking MR = default (ergative constructions)

Language specific

SEMANTIC MACROROLES:

   ACTOR   UNDERGOER

Arg. of	1st arg. of	1st arg. of	2nd arg. of	Arg. of state
DO	**do′** (x,…	**pred′** (x, y)	**pred′** (x, y)	**pred′** (x)

Transitivity = No. of Macroroles [MRα]

Transitive = 2

Intransitive = 1

Atransitive = 0

Argument Positions in **LOGICAL STRUCTURE**

Universal

Verb Class	Logical Structure
STATE	**predicate′** (x) or (x, y)
ACTIVITY	**do′** (x, [**predicate′** (x) or (x, y)])
ACHIEVEMENT	INGR **predicate′** (x) or (x, y)
SEMELFACTIVE	SEML **predicate′** (x) or (x, y)
ACCOMPLISHMENT	BECOME **predicate′** (x) or (x, y)
ACTIVE ACCOMPLISHMENT	**do′** (x, [**predicate1′** (x, (y))]) & INGR **predicate2′** (z, x) or (y)
CAUSATIVE	α CAUSE β, where α and β are LSs of any type

Figure 6: Summary of RRG linking system in Pashto

Grammatical constructions are represented in terms of construction templates representing the idiosyncratic, language-specific features of constructions. Cross-linguistic generalizations are represented in terms of general principles and constraints. The following algorithms (semantics-to-syntax and syntax-to-semantics) are proposed for Pashto with examples following.

Pashto linking algorithm: semantics-to syntax

1) Construct the semantic representation of the sentence, based on the logical structure of the predictor and select the realization of each argument based on the activation level of its referent.

   a) If active, fill in the respective argument position with a relevant bundle of pronominal features.

   b) If accessible, fill in the respective argument position with corresponding nominal, plus its pronominal features.

   c) If inactive or non-identifiable, fill in the respective argument position with the corresponding nominal exclusively.

2) Determine the actor and undergoer assignments, following the actor-undergoer hierarchy in figure 6.

   a) The rightmost is the actor and the leftmost the undergoer.

   b) Pashto, being direct object language, has the lowest argument as undergoer in three arguments predicate.

3) determine the morpho-syntactic coding of the arguments:

   a) Select the PSA, based on the PSA selection principle in 134, if accusative construction, it is the highest argument, if ergative, it is the lowest argument.

   b) Assign the XPs the appropriate case markers and/or adpositions as indicated in 136, 137 and 138.

   c) Assign the agreement marking to the main or auxiliary verb, as appropriate.

4) Select the syntactic template for the sentence following the principles in 152 and 153.

5) Assign XPs to positions in the syntactic representation of the sentence.

   a) Assign pronominal features to the AGX.

   b) Assign the [-WH] XPs to the appropriate positions in the clause, subject to focus structure.

   c) Assign focal elements to immediately preverbal position (default).

   d) If there is an [+WH] XP,

     i. Assign it to the normal position of a non-WH-XP with the same function,

     ii. Assign it to a position within the potential focus domain of the clause (default = the unmarked focus position).

   e) Assign the XP(s) of LS other than that of the predicator in the nucleus to

     i. the periphery (default), or

     ii. the left-detached position.

Pashto linking algorithm: syntax-to semantics

1) determine the macro role (s) and other core arguments (s) in the clause.

   a) if the verb is intransitive, then assign the privileged syntactic argument macro role status.

   b) if the verb is transitive, determine its voice

   i) if the voice is active,

     a) the construction is syntactically accusative

      i) If it is the unmarked voice, the privileged syntactic argument is an actor.

     ii) If it is passive, the privileged syntactic argument is not the actor of the predicate in the nucleus

     a)The actor appears in the periphery marked by an adposition; or

b) If there is no actor in the core or the periphery, then replace the variable representing the highest ranking argument in the logical structure with 'Ø'

   i) If the construction is syntactically ergative:

    a) If it is the unmarked voice, the privileged syntactic argument is undergoer.

    ii) The undergoer appears as a direct core argument.

    iii) If there is no undergoer in the core or the periphery, then replace the a variable representing the lowest ranking argument in the logical structurewith 'Ø'.

   c) Determine the linking of the pronominal features of the predicate in the nucleus.

    i) Link the nominative or ergative features to the actor depending on the type of construction.

    ii) Link the accusative or absolutive features to the undergoer depending on the type of construction

    iii) Link the dative features to the non-macro role.

2) Retrieve from the lexicon the logical structure of the predicate in the nucleus of the clause and concerning it determine the actor and undergoer assignments, following actor-undergoer hierarchy in figure 19.

3) Link the arguments determined in step 1 with the arguments determined in step 2 untilall core arguments are linked.

4) If there is a predicative adpositional adjunct, then retrieve its logical structure from the lexicon, insert the logical structure of the core as the second argument in the logical structure and the object of the adposition in the periphery as the first argument.

The above linking algorithms in Pashto sentences containing clitic doubling argument and other versions are given below. The following examples show different argument realizations of the dative arguments in terms of the activation level. The configuration for every version is given in the figures following.

a)   Ahmad   Ali   ta   khat   WAR   lego

       Ahmad.ERG   Ali   DAT   letter.ABS   3.VC   send.PST.IMP.NOM

Ahmad was sending Ali a letter.

b)

Ahmad	WAR	ta	khat	WAR	legi
Ahmad	3.VC	DAT	letter	3.VC	send.PRES.IMP

Ahmad is sending him a letter.

c)

Ahmad	khat	WAR	lego
Ahmad.ERG	letter.ABS	3.VC	send.PRES.IMP.ABS

Ahmad was sending him/her/them a letter.

d)

Ahmad	Ali ta	khat	legi
Ahmad.NOM	Ali. DAT	letter.ACC	send.PRES.IMP.NOM

Ahmad is sending Ali a letter.

According to the linking algorithm for Pashto, the first step is to construct the appropriate semantic representation of the sentence. The above examples contain a predicate of transfer. The logical structure of the predicating element would be that of a causative accomplishment. We select the output of the first step in the lexicon with the activation levels of the arguments given below for the clitic doubling (a) example. The first argument is accessible from the context of the speech situation. The second argument is accessible, being the common acquaintance of the interlocutors. It is not actively being a newly introduced referent in the context. The last argument is inactive containing the new information in the clause, being the unmark focal position in the clause.

{IFDE{TNSPAST [[do´ (Ahmad ACS, Ø)]CAUSE [BECOME legal´ (Ali ACS, khat INA)]])}}

The next step is actor undergoer assignment following the actor-undergoer hierarchy in the figure above. The left-most argument of **doing´**(x) is the unmarked choice for actor and the rightmost argument is the unmarked choice for undergoer. So, *Ahmad* is the actor and the second argument of **having´** *khat* is the undergoes, being direct object language, it has the lowest argument as undergoer in three arguments predicate.

{IFDEC{TNSPAST[do´(ACT:Ahmad ACS, Ø)]CAUSE [BECOME legal´(NMR: ALI ACS, UND: khatINA)]])}}

The third step is concerned with the morphosyntactic coding of the arguments in terms of selection of PSA and case assignment. The above is an active ergative construction, so, the lowest ranking argument (undergoer) *khat* is the PSA taking an absolutive case, while the other argument appears as ergative. The agreement markers on the verb show agreement with the undergoer, not with the actor in the clause.

{IF*DEC*{TNS*PAST* [[[do´(ACT:Ahmad ACS, Ø)]CAUSE[BECOME legal´(NMR:Ali ACS,UND:khat INA)]])}}

Active Ergative   [ERG]   [DAT]   [PSA:ABS]

Selecting syntactic templates and an appropriate core template is needed with appropriate syntactic slots. The final step is concerned with the linking of the arguments to their respective slots in the syntactic template. The arguments are linked to the core internal positions as the following figure shows. The arguments are linked according to the topic and focus positions of the arguments in the language. The topical position is the first position in the core and the argument *Ahmad,* being the topic, is linked to the first slot; while the focal position is the position immediately before the predicate, so, *khat* being the focus is assigned to the slot immediately before the predicate. The pronominal features are linked to AGX, realized morphosyntactically. The person, number and gender features of the undergoer are realized by the suffix *–o,* on the verb, while the person features of the dative argument are realized by VC *WAR* occurs immediately before the verb. The following figure shows this active ergative construction where the undergoer (in absolutive case) is privileged syntactic argument.

In the below example, the dative argument is realized by full NP. This dative argument may be realized by VC followed by the postposition. This VC realizing dative argument too is doubled by VC agreeing with it in terms of person features. The dative argument, if accessible, can be realized by VC if the argument is already introduced in the context of the discourse. So, the different encoding possibilities of the dative argument (full NP or VC) owes to the activation level of the argument in terms of their relative status of being newly introduced or having been referred to in the context of discourse at least once being accessible to the short term memory of the interlocutors.

The following is an example of a dative argument realized as VC and the consequent doubling.

Ahmad	WAR	ta	khat	WAR	legi
Ahmad.NOM	3.VC	DAT	letter.ACC	3.VCsend.PRES.IMP.NOM	

Ahmad is sending him a letter.
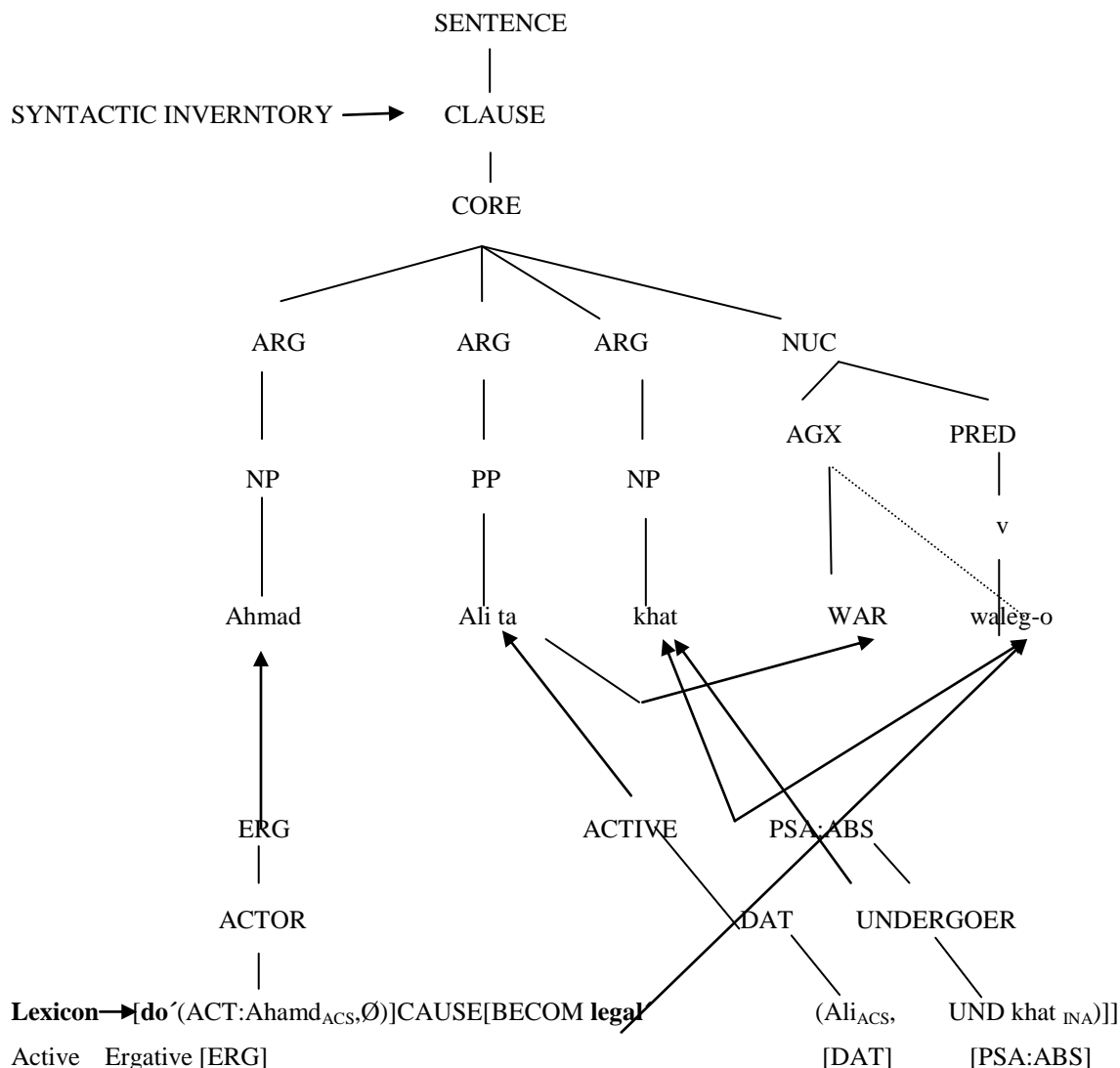
Figure 7: Showing linking for clitic doubling of dative argument

The above example differs from the example having clitic doubling of dative argument which itself appears as VC. This example shows the accessible activation status of the dative argument here. The dative argument is realized by pronominal features. Furthermore, this is an accusative construction, so the PSA argument is the first argument appearing as nominative according to the PSA principle. The outputs of all the steps are given below.

{IF*DEC*{TNS*PRES* [[[do´(ACT:Ahmad ACS, Ø)]CAUSE[BECOME legal´(NMR:[3S]ACS,UND:khat INA)]])}}

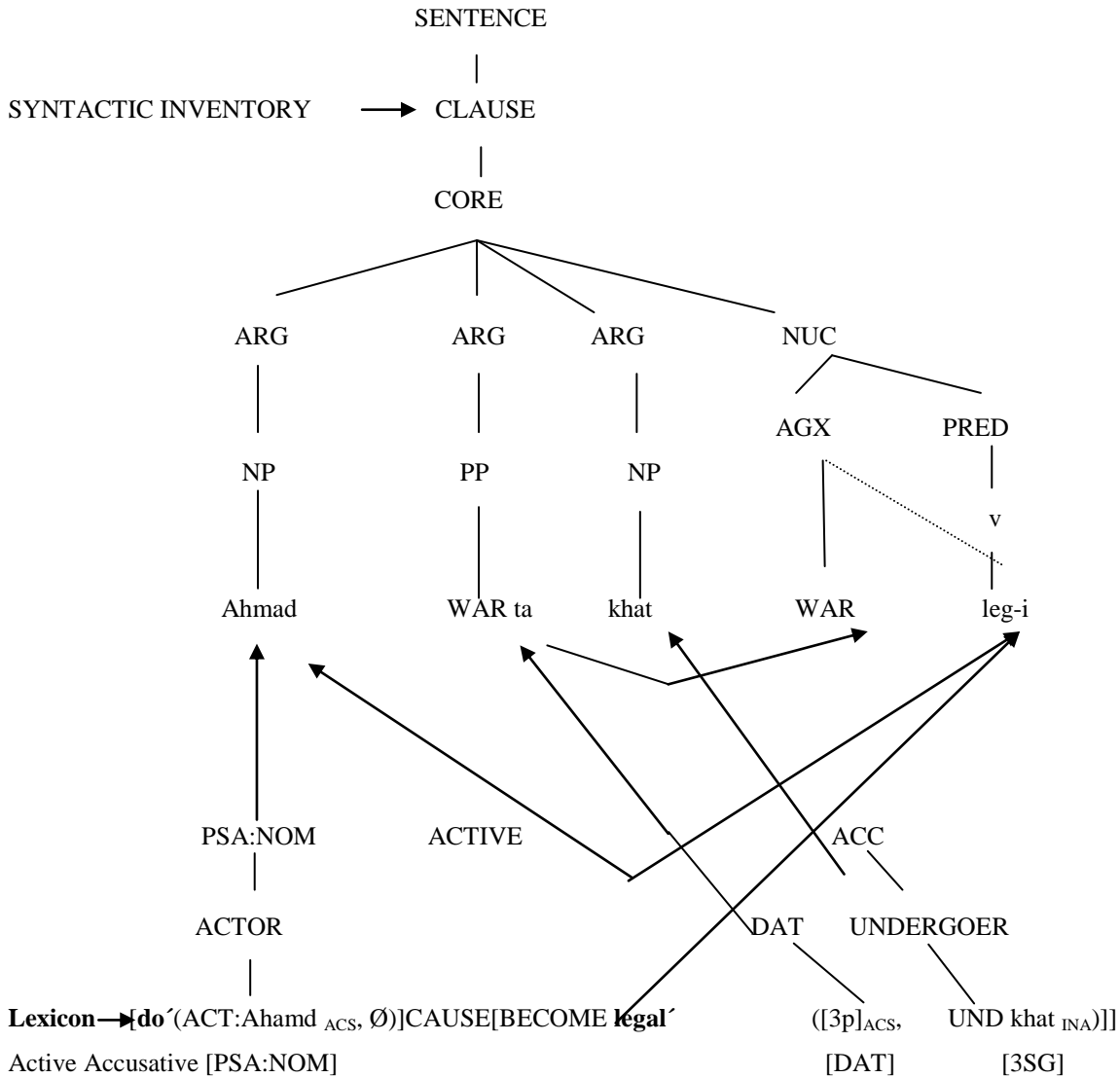| Active Accusative	[PSA:NOM]		[DAT]	[ACC]

The clitic-only version is given below where the outputs of all the steps are the same except the activation level of the dative argument, being active and so realized by pronominal features. The following example is followed by the output and representation of the arguments configurationally.

| Ahmad	khat	WAR	warlego
Ahmad.ERG	letter.ABS	3.VC	send.PRES.IMP.ABS

Ahmad was sending him/her/them a letter.

{IF*DEC*{TNS*PAST* [do´(ACT:Ahmad ACS, Ø)]CAUSE[BECOME legal´(NMR:[3S] ACV,UND:khat INA)]])}}

Active Ergative	[ERG]		[DAT]	[PSA:ABS]

All the below examples contain VC, doubling the dative argument. Along this type of VC, Pashto has another kind of VC which incorporates to the verb but does not cause doubling. The apparent doubling here is not a true example of doubling in the sense we identified for dative arguments (indirect object). The following examples show the use of these VCs. The first example (a) is from the data of the natural discourse and the other examples (b,c,d) are from the novel by Muhammad (1996).

SENTENCE

SYNTACTIC INVENTORY ⟶ CLAUSE

CORE

ARG ARG ARG NUC

          AGX PRED

NP PP NP   v

Ahmad WAR ta khat WAR leg-i

PSA:NOM ACTIVE   ACC

ACTOR   DAT UNDERGOER

Lexicon⟶[**do´**(ACT:Ahamd $_{ACS}$, Ø)]CAUSE[BECOME **legal´** ([3p]$_{ACS}$, UND khat $_{INA}$)]]
Active Accusative [PSA:NOM]   [DAT]   [3SG]

Figure 8: Showing linking of clitic doubling of dative argument (realized by VC)

161) a) Ahmad agha WAR guzar kro
    Ahmad.ERG 3.SG.ABS 3.VC push do.PST.PF.ABS
    Ahmad pushed him.

 b) taa la sharam na DAR zi?
    2.SG DAT shame not 2.VC come
    Are you not ashamed?

 c) Asad khan RAA Wrande sho
    Asad.NOM khan 1.VC come be.PST.PF.NOM
    Asad khan came forward.

 d) zama wuda zameer ye RAA weekh kro
    my asleep conscience.ABS this.ERG 1.VC awake do.PST
    This awakened my sleeping conscience.
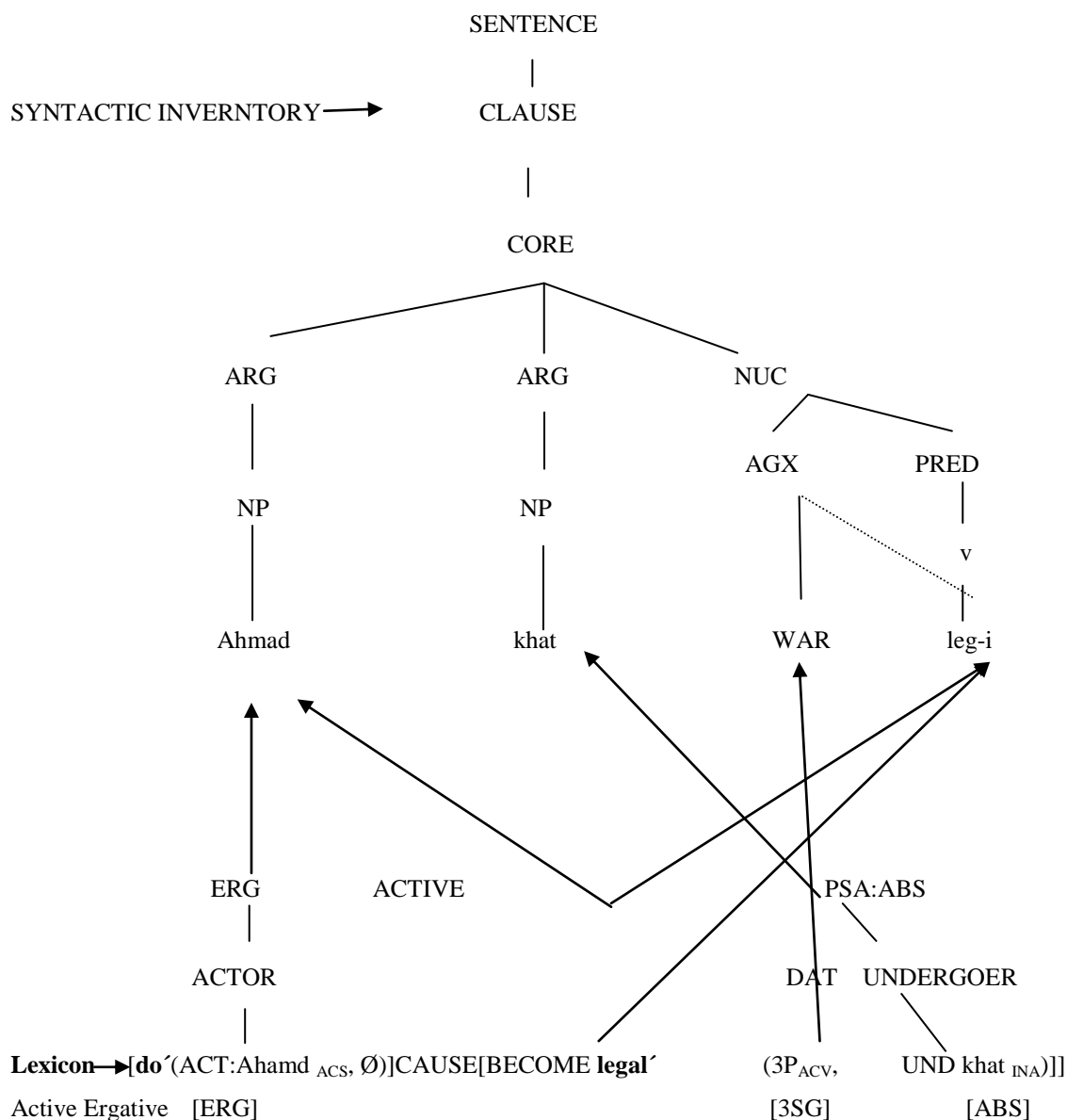
Figure 9: Showing linking of VC identifying dative argument (VC only)

This type of use of VCs takes into account the viewpoint of the speaker (in natural discourse) and narrator (in novel etc.). The third person VC in the natural discourse shows the direction away from the speaker from his viewpoint. The second person VC shows the direction towards the addressee. The first VC shows the narrator's viewpoint and uses the first person VC instead of the second and third person. This overuse of the first person VC in the novel reflects the narrator's viewpoint. The narrator observes the events and describes them from the perspective of his mental eyes. The narrator observes the events through his mental eyes because he is present everywhere.

This type of VC is a kind of core operator in RRG terms occurring in the same immediate preverbal position, which does not cause clitic doubling as it does not show agreement with the dative argument. The use of one VC (first person) in the place of another is related to the speaker/narrator perspective. The speaker/narrator perspective (and so the type of VC used in Pashto) is explained in terms of the *perspectival system* in the typological distinction across languages to distinguish motion typology[2].

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[2] This typology identifies five key schematic systems for conceptually structuring systems in the language in which the events are structured. The schematic system relevant to our discussion is the *perspectival system* thatspecifies the perspective from which we view scenes or places either physically being a part in the scene or from our mental eyes. It includes the conceptual distinction of spatial or temporal positioning, the change of perspective point in terms of path, time and viewing direction (Férez, 2008). Examples of scenes from our physical perspective and from our mental eyes are given in the following examples.

1) a) sari war kulaw ko aw danana RAA Aghay

The *motion typology* is proposed for languages by Talmy (1991, 2000), describing the languages as verb-framed or satellite-framed languages[3], with an additional type of *equipollently-framed*[4]language proposed by Slobin (2004). It identifies the core schema of motion events in terms of the path of the motion. Motion is assumed to compose of four basic conceptual components i.e., motion, the moving entity, the change of location, and the path (path includes the source, the route taking and the goal etc.). Some of the components identified below are not the same as proposed in the typology but the meanings of these components are the same, e.g., location is called *Ground* in the proposed typology but we here call it location to avoid the new terminology.

Ahmad	da	kor	na	pa	pato	ke	skul	ta	laro[5]
Ahmad	PRES	home		from	by	fieldin	school	to	go.PST.PF
entity		LOCATION1	PATHs	PATHm		LOCATION2	LOCAION3	PATHg	Motion

Ahmad went out of the home across the field to the school.

The above example shows that the motion is expressed by the verb, the actor (*Ahmad*) is the moving entity, the terms *home, field* and *school* are the locations, and *from, through* and *to* are the paths. The path is the defining conceptual element or core schema of motion.

We cannot include Pashto in either of the above groups as it is a topic in itself to investigate the language in terms of motion typology. What we can suggest about the status of Pashto in this typology at the time is to investigate the information about the path of the motion directly relevant to our discussion here. Pashto is a rigid verb-final language and the word order in the language is such that all the information about path and location are expressed before the verb. The part of the path information about the viewing of the scene on the part of the speaker/narrator is delayed but put immediately before the verb in the form of VC. The same factor is considered crucial for other languages like Basque, Chantal, Japanese and Turkish (Ibarretxe-Antuñano, 2008; Férez, 2008, p. 46).

This phenomenon is so pervasive in the language that if we find out the use of VC with clauses identified for motion, we see their use with verbs showing inherent directed motion. Nine classes of motion verbs are proposed by Levin (1993) for English. Out of these nine classes, one class has members that have the meaning of inherently directed motion like the words *arrive, plunge, fall* etc.

	man	door	open	do	and	inside	towards me	came

The man opened the door and came inside the room.

b)	sari	war	kulaw	ko	aw	danana	laro
	man	door	open	do	and	inside	go.PST.PF

The man opened the door and entered the room.

Note the use of 1st person VC in the (a) example when the scene is viewed from inside the room and the viewer (speaker) is present inside the room. In the (b) example the speaker is no more in the room and views the scene from outside and so uses the verb that suits this kind of viewing and no VC is used to show the direction of the movement.

[3] In satellite-framed languages, the core component of the motion (path or trajectory of motion) is expressed by satellites e.g. English is a satellite language where the satellites (preposition phrases or words like *up, down* etc.) express the path of motion and the verb expresses the manner of motion.

2)	a)	The ball	rolled	*down*	the hill.
		Entity	Motion	Satellite	Location

	b)	He	came	*out of*	the house
		entity	Motion	Satellite	Location

On the other hand French is verb-framed language, where the *path* is expressed in the main verb and the manner is expressed by adjuncts (Pourcel & Kopecka, 2006).

3)	*Julie*	*traversa*	*la rue*	*en courant*
	Entity	Path	Location	Motion
	Julie	crossed	the street	running

Julia ran across the street.

[4] In equipollentlyframed language the morphosyntactic status of both Path and manner is roughly equal i.e. expressed by quivalent grammatical forms. These languages include, serial verbs languages (Sino-Tibetan), bipartite languages (Hokan) and generic-verb languages (Jaminjung). See Férez (2008) for further details.

[5] S= source, M= medium (the path gone through after leaving the source and before reaching the goal G=goal.

These kinds of the verb have the direction of motion i.e., the path of the motion even if they lack directional complements (Férez, 2008, p. 97). Pashto may have VC with these verbs to show the physical and mental viewpoint of the direction of motion from the speaker or narrator perspective. The incorporation of VCs with some of the verbs changes the meaning in terms of the direction of the motion of the verb. For example, the word for 'carry' in Pashto is *rural* and if the first person VC is added to this verb it becomes *RAAwural* meaning 'bring'. This type of use of VC resembles the deictic use in the categories for a motion proposed by Talmy (1991, 2000)[6]. The deictic use shows the direction of motion concerning the viewpoint of the narrator or speaker.

The goal of the speaker (the endpoint in terms of a path) is important here and the VC agrees in terms of the position of the goal (location) intended by the mover to reach and where the speaker is present. What matters here is the goal (direction) from the speaker/narrator's viewpoint; if towards him/her, we use first person VC RAA, if towards addressee, we use DAR and if in the direction of a third person, we use *WAR*. But if we talk about the third person's movement in direction of another third person (neither speaker nor addressee) and the speaker is present there or views from his/her mental eyes as the example (c) shows, we use RAA there, as the example shows. This is not an instance of clitic doubling, and we can explain it with Talmy's (1991, 2000) proposed typology for motion events across languages. Example (a) is shown configurationally below in terms of RRG. The VC is a core operator here. This core operator expresses the motion of one participant concerning another or to the speaker/narrator. This operator is linked to the agreement node (AGX).
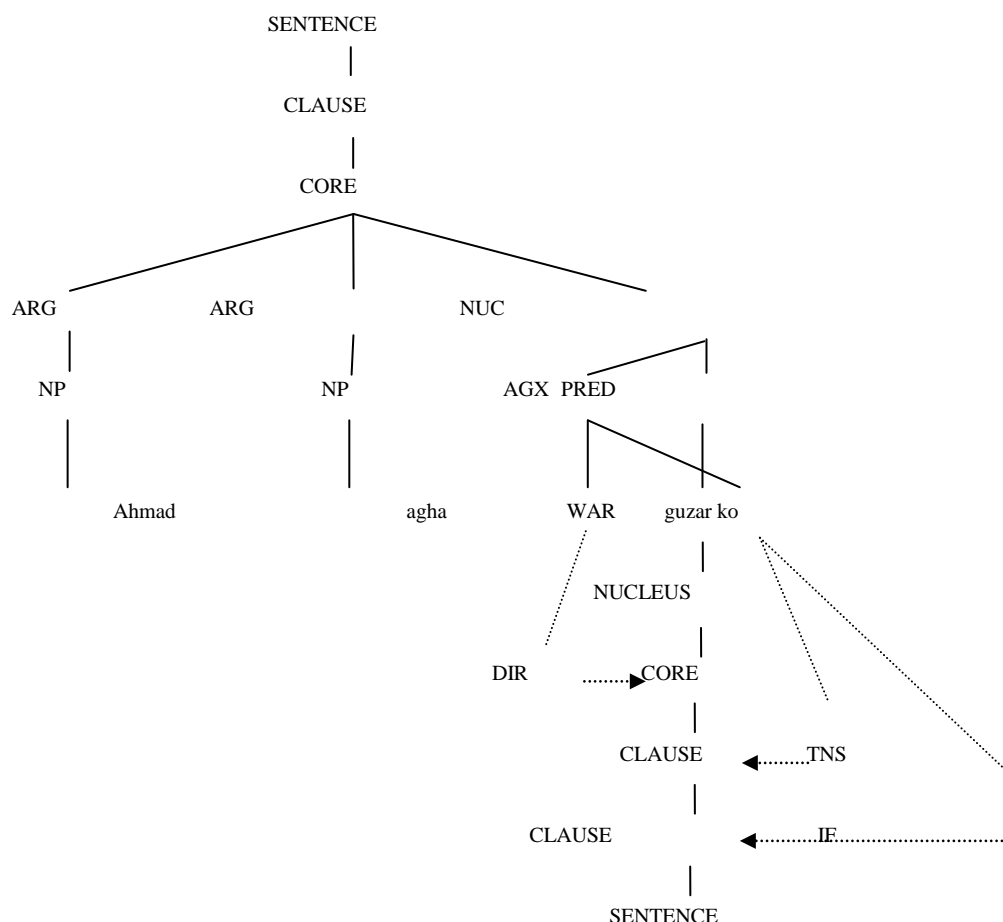
Figure 10: Showing VC as operator

The above example (Figure10) shows that the third person VC (*WAR*) is used with the two 3rd person singular (Ahmad, agha). But the VC does not identify any of these arguments. The VC here is a directional operator showing the direction of the third person (agha) towards another third person not mentioned in the clause. The moment is not in the direction of *Ahmad* or *agha*. This moment is explained from the viewpoint of the narrator. The narrator refers to the direction of motion of the participant away from him and the addressee and so uses the third person VC.

CONCLUSION

The present study analyzed the Pashto clause containing VCs in the light of RRG. To achieve the objectives of the study, the interplay of semantics, syntax and pragmatics in the clause containing VC was suggested. The discourse-pragmatic

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[6] Deictic is one of the three components of the path verbs, having to types of motion i.e. towards the speaker or any other motion not in the direction of the speaker. See Talmy (2000) for details.

component was the realization of the information structure that had a suggested role in linking the syntactic and semantic representation in the Pashto clause. The four projections of a Pashto clause i.e., constituent projection, operator projection, logical structure projection and focus structure projection were analyzed in RRG terms. The lexical representation of the predicating elements in Pashto was presented. The findings showed that in a default situation, the leftmost argument was an actor and the rightmost argument was undergoer in Pashto. The syntactic neutralization, in Pashto, is closer to other ergative languages like the Kalkatungu language, an Australian Aboriginal language (Blake, 1979), i.e., [S, U$_T$, d-S], where the neutralization is restricted because the undergoer can be the privileged syntactic argument in more constructions than the actor in equal types of construction. Pashto, having both accusative and ergative constructions, has the PSA as the actor in accusative constructions and undergoer as PSA in ergative constructions. The PSA in Pashto is always the Macro role and the non-Macro role cannot be the PSA. For example, if the so-called subject has the thematic role of the experiencer, it appears as an oblique argument (non-macho role) is present. The verb with such oblique arguments takes the default agreement marking. In Pashto, the highest-ranking core macro role takes the nominative case. The other core macro role takes the accusative case and the non-macro role direct core arguments take the dative as their default case. Pashto, like Spanish, is a split marking language with no absolute clear-cut categorization. It is dependent on marking language at the level of the phrase where the markers are realized by the dependents of the phrase. It shows a head marking pattern at the clause level. The agreement markers in Pashto show agreement with the direct argument (nominative in present and absolutive in past) with the optional doubling of the argument. Agreement markers on the verb cannot identify any oblique argument. In this perspective, if VCs are agreement markers, they should likewise identify direct arguments but they identify dative arguments in the form of oblique arguments. This property makes them different from other agreement markers. On the other hand, we have the optional doubling of arguments with both agreement markers and VCs. In the case of agreement markers, we have the optional doubling of nominative/absolutive and in the case of VCs, optional doubling of dative arguments. This property of optional doubling makes the VCs resemble agreement markers. VCs are different from both agreement markers and pronouns with some shared properties. The dative argument is optional with VCs, unlike dependent marking languages. The VCs are sufficient and if the optional dative argument occurs along, they are not appositional adjuncts like the independent's arguments in head marking language. The proper arguments, if included, are constituents of the core, not of the clause. While the pronominal features (VCs) are linked to an 'agreement index' node (AGX) inside the nucleus of the core. Pashto is a so-called pro-drop 'split marking' language, different from both prototypical 'head marking' and 'dependent marking' languages. The dependents of the verbs can be omitted like head marking language without affecting the grammaticality. The argument positions, in this case, are filled exclusively by features bundle in the semantic representation of the core and they do not require syntactic slots in the core template. These arguments can be included for some grammatical phenomena keeping into account their behavioural reference. A linking algorithm is proposed for Pashto from semantics to syntax and syntax-to-semantics based on the activation level of the referents. If the referent is active, the respective argument position is filled with a relevant bundle of pronominal features. If it is accessible, the argument position is filled with corresponding nominal, plus its pronominal features. If it is inactive or non-identifiable, the respective argument position is filled with the corresponding nominal exclusively. The pronominal features are linked to AGX. The topical and focal positions are identified and assigned to the appropriate slots in the clause. The constructions containing VCs are shown configurationally showing the assignment of different types of VC to their appropriate slots in RRG terms.

DELIMITATIONS OF THE STUDY

The present was delimited to analyze VCs in Role and Reference grammar. It only focused on analyzing the discourse-pragmatic conditions responsible for different realizations of VCs. The study only investigated those constructions which contained VCs and the possible discourse-pragmatic conditions for different constructions. Other syntactic/pragmatic phenomena like focus structure, syntactic neutralization, head and depending marking responsible for VCs occurrences was also investigated. The study did not take into account other important discourse-pragmatic aspects in the Pashto clause.

SUGGESTIONS FOR FUTURE STUDIES

Future studies can take into many aspects of Pashto clause structure like agreement, rigidity and flexibility, case system, argument structure, semantic and syntactic interplays from many other theoretical perspectives. The Pashto clause structure can also be studied from the perspective of different grammatical categories like the number, gender, case, voice and so many others. Language is one of the least investigated languages and so, future researchers can research so many perspectives.

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