

'Do'-periphrasis as a cross-linguistic predicate focus strategy

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Predicate focus

Predicate focus is a category that highlights new or salient bits of information. It is marked prosodically, morphologically or syntactically (Wolff & Löhr 2006: 187-188):

- predication focus: TAM, polarity
- term focus: arguments, adjuncts

Predicate-centered focus comprises several functions (Güldemann et al. 2010). The verb or predicate is seen as the carrier of illocutionary force as well as of propositional content. As such it is the typical locus of these focus categories:

- state of affairs focus (predicate identifies a state of affairs)
What did the princess do with the frog? She KISSED him
- operator focus (predicate brings about an illocutionary act)
 - truth value (verum) focus
I can't imagine the princess kissed the slippery frog. Yes, she DID kiss him.
 - TAM focus
Is the princess kissing the frog right now? She HAS kissed him.

Güldemann et al. (2010) assume that languages differ in terms of whether they mark predicate focus distinctly or whether single types of predicate focus are marked identically.

What are periphrastic 'do'-constructions?

Periphrastic 'do'-constructions consist of a lexical verb and an auxiliary element that has a lexical counterpart characterised by 'schematic action' such as English *do*. The auxiliary is in many cases a semantically bleached dummy element, but its original semantics may constrain its use.

The phenomenon of 'do'-periphrasis in English (*do*-support) has received a great deal of attention in the literature, particularly in terms of language-specific diachrony and/or generative syntax (for an overview see Jäger 2006). Likewise similar phenomena have been pointed out in other single languages. Cross-linguistic functional studies on the other hand are rare:

Van der Auwera (1999) points out under which conditions a language is likely to use periphrasis: integration of foreign words and inflections, negation, accomplishment, causation general periphrasis

Schultze-Bernd (2008) uses a semantic map approach to account for the functional diversity associated with 'do'-verbs/auxiliaries and states as a core characteristic the perceived manifestation of an event rather than activity

My own study (Jäger 2006) provides support for Van der Auwera's form/function-relations and expands on it on the basis of a convenience sample of 200 languages. The auxiliary in periphrastic 'do'-construction types is a (more or less) grammaticalised 'schematic action' verb that is either directly associated with a meaning or function (see next section) or its occurrence is triggered by grammatical features of the clause.

My research shows that that wherever 'do'-periphrasis is obligatorily triggered in a certain clause-type in a given language, one of the following types apply. Languages may also show positive results for multiple types. The functional range of obligatory PDA is limited to these types

- Type 1 Lexical or morphological material triggers 'do'periphrasis. This material forms class and its function is similar to that of regular verbal categories and/or adverbial modification.
- Type 2 If a language has rigid or dominant word order, periphrasis is used to mark clause types that display a deviant or irregular word order. Associated pragmatic functions: Focalisation, topicalisation, interrogativity
- Type 3 Lexical features of the verb require periphrasis with a 'do'-auxiliary, PDA marks a subclass of verbs (loanword status of the lexical verb or native stem features)
- Type 4 If a verb or verb phrase is subordinated and forms a constituent in a larger structure, it is obligatorily marked as such by means of 'do' -periphrasis.

Highlighting the verb or verb phrase for reasons of information structure (focalisation or topicalisation in marked clause types) is a cross-linguistically common effect of PDA and can be associated mostly with Types 1 and 2. Predicate-centered focus is an environment in which PDA is prolific in one way or another.

PDA and predicate-centered focus

Some examples:

- (1) a. English (Indo-European)
Watch a film he did.
- b. Gude (Afro-Asiatic) (Hoskison 1975: 228-229)
bələnə nə sətə ci John ada tə bwaya.
kill SUBJUNCTIVE thing CONTINUOUS John do OBJECT leopard
'John is KILLING a leopard now.'
- c. Fon (Niger-Congo, Atlantic-Congo) (Lefebvre 1991: 40-41)
àsó sò yì àxì-mè wè kókú dè.
crab take go market-LOCATIVE PROGRESSIVE Koku do
'It is bringing a crab to the market that Koku is doing.'
- d. Korean (Isolate) (Hagstrom 1995: 32-33)
Chelswu-ka chayk-ul ilkki-nun ha-ess-ta.
Ch.-NOMINATIVE book-ACCUSATIVE read-TOPIC do-PAST-DECLARATIVE
'READ THE BOOK, Chelswu did.'

My data suggests that languages tend to employ PDA for specific types of predicate focus.

PDA (obligatorily or optional) is particularly common with

- topicalisation (mostly VP)/which may have verb focus function
- predicate focus (incl. highlighting the epistemic status of the whole clause)
- negation

Since focalisation is associated with Type 1 periphrasis in some and with 'do'-auxiliaries in other languages, it is a form-function relation likely to be grammaticalised. Where a 'do' auxiliary encodes such categories directly, it is only one of the above subtypes of predicate focus rather than predicate focus as such. PDA is triggered by word order changes in a number of languages, which can be associated with focus functions (Type 2). Here it either the V/VP, the whole clause or a nominal argument that is in focus. However, verb focus is the only highlighting function directly encoded in a 'do'-auxiliary cross-linguistically.

Interaction between sentential negation and focus:

- negation often analysed as inherently focused (truth-value focus assertive vs. negative)
- interaction expected and borne out by cross-linguistic data: PDA frequently occurs in negation and assertive predicate-centered focus contexts

Sentential negation is one of the most widespread environments for PDA to occur. This is always Type 1 periphrasis, i.e. a NEG morpheme triggers PDA (sentential negation) This could be attested in 16 out of a total of 35 languages that show Type 1 PDA. No language could be attested in which negation is directly encoded by a 'do'-auxiliary. (< This suggests that even when used as a “dummy” 'do'-auxiliaries retain residual assertiveness, which blocks direct encoding of negation.)

The data also suggests a relation between predicate-focus and certain TAM forms, since these are the only domains in which 'do'-auxiliaries become fully grammaticalised, i.e. where the respective category or function is encoded in the auxiliary itself rather than it being triggered by other functional elements or syntactic configurations (which may nevertheless be associated with similar functions).

It is probably by virtue of their schematicity that 'do'-auxiliaries lend themselves to pragmatic purposes and make this a likely strategy independent of genetic affiliation.

'Do'-auxiliaries as direct coding devices for predicate-centered focus

Operator focus/truth value focus:

- (2) Bura (Afro-Asiatic, Chadic) (Badejo 1989: 50-51)
- a. *tsà ànà wáhi.*
3Sg do yawn
'He DOES yawn.'

- b. *tsà ànà tsá cánún.*
3Sg do beat monkey
'He DOES beat a monkey.'
- c. *tsà àtà yabwi.*
3Sg be break
'He is breaking.'
- d. *yàrà kwà fà tásà.*
1Pl be.1Pl carry bowl
'We are carrying a bowl.'
- (3) Mandinka (Niger-Congo, Mande)(Claudi & Mendel 1991: 46)
a ka bungo dada.
3Sg do house
'He DOES build a house.'
- (4) Ivie (Niger-Congo, Kwa)(Masagbor & Masagbor 1995: 235)
mi lă lé ishégwò.
1Sg do eat sometimes
'I DO eat sometimes.'
- (5) Ainu (Isolate)(Refsing 1986: 208-210)
- a. *apkas siri nitan apkas ki.*
walk appearance.NOM be.quick walk do
'His pace was brisk and he DID walk.'
- b. *kusuri ku ku ka ki.*
medicine 1/3 drink/take restrictive do
'I DO take medicine.'

Operator focus/TAM Focus:

- (6) Uyghur (Turkic)(Hahn 1991: 612)
- a. *apam küil-di.*
Mum laugh-PAST
'Mum laughed.'
- b. *apam küliw-ät-ti.*
Mum laugh-do-PAST
'Mum laughed uncontrollably./'Mum burst out laughing.'
- c. *Tursun topni täp-ti.*
Tursun ball kick-PAST
'Tursun kicked the ball.'
- d. *Tursun topni tepiw-ät-ti.*
Tursun ball kick-do-PAST
'Tursun gave the ball a good swift kick.'
- e. *yamğur yağ-di.*
3Sg rain-PAST
'It rained.'
- f. *yamğu taza yegiw-ät-ti.*
3Sg really rain-do-PAST
'It suddenly rained really heavily.'
- > auxiliary is in complementary distribution with others
- (7) Udihe (Tungusic)(Nikolaeva & Tolskaya 2001: 285)
- a. *tu: c'asa-i o:-ti.*
all tickle-PAST do.PAST-3Pl
'They always tickled her.'
- b. *namu eh-le-ni nede:-ti o:-ti.*
sea side-LOCATIVE-3SG put.PAST-3Pl do.PAST-3Pl
'They put him from the side
of the sea.'

> intensive or expressive past tense

State-of-affairs focus:

- (8) Ngardi (Pama-Nyungan)(Capell 1979: 268)
daljma-ngu-na.
 break do-shall-1Sg
 'I shall BREAK.'
- (9) Miya (Afro-Asiatic, Chadic)(Schuh 1998: 185-187)
- a. *à dām aakyír.*
 3Sg do steal
 'He STEALS.' / 'He does stealing.'
 - b. *à dām aatlyádi.*
 3Sg do hoe/farm
 'He HOES.' / 'He does farming.'

Type 1 periphrasis: predicate focus trigger morphemes

Korean

Hagstrom (1995): two strategies for the topicalisation of predicates – Verb-initial clauses contain either a copy of the verb or a 'do'-auxiliary. Only in the former the verb can be focused exclusively, otherwise either the object or the entire verb phrase is focused.

- (10) Korean (Hagstrom 1995: 32-33)
- a. *Chelswu-ka chayk-ul ilk-ki-nun ilk-ess-ta.*
 Chelswu-NOM book-ACC read-ki-TOP read-PAST-DC
 'READ the book, Chelswu did.'
 - b. *Chelswu-ka chayk-ul ilk-ki-nun ha-ess-ta.*
 Chelswu-NOM book-ACC read-ki-TOP do-PAST-DC
 'READ THE BOOK Chelswu did.'
 - c. *Chelswu-ka ppang-ul mek-ki-nun ha-ess-ta.*
 Chelswu-NOM bread-ACC eat-ki-TOP do-PAST-DC
 'EAT BREAD, Chelswu did.'

Periphrasis is triggered by TOP-morpheme. The specific function of PDA in Korean is thus predicate focus, more specifically state-of-affairs focus.

Japanese

Material allowed to intervene between a main verb and the auxiliary *suru* ('do') forms a closed class of main verb affixes: NEG morphemes and topicalisers akin to *-nun* in Korean.

- (11) Japanese (Isolate) (Miyagawa 1998: 431-435)
- a. *ocha-o narai-sae si-hajime-ta.*
 tea.ceremony-ACC learn-EVEN do-BEGIN-PAST
 'I have even begun to learn the tea ceremony.'
 - b. *John-ga keeki-o tabe-mo su-ru.*
 John-NOM cake-ACC eat-ALSO do-NONPAST
 'John also eats cake.'
 - c. *John-ga keeki-o tabe-ru.*
 John-NOM cake-ACC eat-NONPAST
 'John eats cake.'

Miyagawa (1998) analyses sentences like (11a) and (11b) as predicate focus-constructions. PDA is triggered by the delimiter-morphemes ALSO and EVEN. This shows a correlation between negation and predicate-centered focus.

Toura

The closed class contains only one element, a focalising suffix (tonal clitic) :

- (12) Toura (Niger-Congo, Mande)(Van Valin 1999: 511-24)
- a. *Tià-' gwéé lɔ-' wo' le.*
 Tia-PRED peanuts buy-FOCUS do PAST
 'Tia BOUGHT peanuts.'
 - b. *Tià-ké gwéé lɔ'.*
 Tia-PRED peanuts buy
 'Tia BOUGHT PEANUTS.'

- c *Tià-' gwéé-' ló'.*
Tia-PRED peanuts-FOCUS buy
'Tia bought PEANUTS.'
- d. *gwéé-' Tià ló' le.*
peanuts-PRED Tia buy PAST
'It is peanuts that Tia bought.'

A similar clitic can also be used to focus the object NP. However, PDA is only obligatory with predicate verb focus, more specifically state of affairs focus.

Topicalisation and focalisation in Type 2 periphrasis/VP preposing

There is a cross-linguistic correlation between fronting/preposing of either the verb or the verb phrase and PDA. Different aspects of the predicate may become focussed by this process. Focus may be a secondary effect of PDA-marked verb disposition, i.e. a focus reading becomes likely if the V or VP is preposed.

Güldemann et al. (2010): Preposing as a syntactic coding device for information structure...

- verb focus preposing
- verb topic preposing

There are differences with respect to which specific discourse function triggers PDA cross-linguistically. While the above construction in English is only available for topicalisation, not focalisation, this is different in German.

In English auxiliary *do* turns up in structures like (13):

- (13) a. *Run fast he did.*
b. *Man, does he run fast!*

In (13a) verb topicalisation either has a contrastive function, whereby an aspect of a previously uttered verb may be highlighted (see (14a) below), or it is a truth value focus. (13b) is an exclamative sentence.

If the verb is newly introduced, periphrasis ('do'+infinitive) is impossible. English uses a more complex construction such as *As for waiting, I like it.* In German the verb-initial periphrastic construction is also possible for the introduction of new verbal meanings, as shown by the adverb *beispielsweise* ('for instance'):

- (14) a. *There's many things I don't do. *Dine, for instance, I do.* >SOA FOCUS
b. *Es gibt viele Dinge, die ich nicht tue. Essen gehen tue ich aber gerne.* >SOA FOCUS

Without such adverbs PDA can be used for contrastive focus in German, while in English verb topicalisation is the more likely function:

- (15) a. *I don't swim fast, but swim I do.* > VERB TOPICALISATION
 >> SOA FOCUS (CONTR)
b. *Ich laufe ungern, aber schwimmen tue ich gerne.* >SOA FOCUS (CONTR)
 I run with.dislike but swim do I with.pleasure
 'I don't like running, but swimming I like.'

The schematic action auxiliary *do* is the only element available for this function. A similar form-function-relation obtains in other Germanic languages such as Dutch (a,b) and German (c):

- (16) a. *Zingen doet he morgen.*
 sing.INF do.3Sg 3Sg tomorrow
 'As for singing, he will do it tomorrow.' (Van der Auwera 1999: 462)
- b. *Kaarten hebben we altijd veel gedaan.*
 play.cards.INF have.1Pl 1Pl always a.lot do.PARTICIPLE
 'We used to play cards a lot.' (Cornips 1998: 4)
- c. *Singen tun wir morgen.*
 Sing.INF do.1Sg 1Sg tomorrow
 'As for singing, we do it tomorrow.'

In other languages it is the introduction of new verbs to a given discourse is a specific function of 'do'-periphrasis, as in Ika:

- (17) Ika (Chibchan) > SOA FOCUS
- a. *zoža u-na.*
 go do-DISTANT
 'They went..'

- b. *mouga -ri awa?rei zoža-na.*
two-TOP below go-DISTANT
'Two men went below.' (Frank 1990: 48-49)

In Yoruba (Niger-Congo, Atlantic-Congo) topicalisation a fronted verb has a doublet in its regular position. Other constituents may also be fronted, but without doubling.

- (18) a. *wón mú mi.*
3Pl take.PAST 1Sg
'They arrested me.'
b. *mímú ni wón mú mi.*
Taking PARTICLE 3Pl take.PAST 1Sg
'They actually arrested me.' (Bamgboṣe 1966: 56)

For truth value focus on the entire clause a 'do'-element appears in clause-initial position

- (19) *ṣe la ma lo aṣo yèn.*
do 1Pl FUT use cloth that
'We DO use that cloth.' (Bamgboṣe 1966: 57)

For focalising the negative epistemic status of the proposition (or parts thereof) there is what Bamgboṣe (1966) calls the underlined collocation a "thematized clause":

- (20) *ki í ṣe ní.sì nìkon ni kiní yén wà.*
not PROG do in.religion alone be thing that be
'It isn't in religion alone that the thing exists.' (Bamgboṣe 1966: 37)

Some further examples:

- (21) Skou (Sko/Vanimu) (Donohue 2003: 109) > TRUTH VALUE FOCUS
a. *báng moerító ke-k-ang.*
yesterday yellowtail.scad 3Sg-3Sg-eat
'He ate some yellowtail scad yesterday.'
b. **moerító ke-k-ang-inga báng.*
yellowtail.scad 3Sg- 3Sg-eat-the yesterday
'Eat yellowtail scad he did yesterday.'
c. *moerító ke-k-ang-inga báng ke-li.*
yellowtail.scad 3Sg-3Sg-eat-the yesterday 3Sg-do
'Eat yellowtail scad he did yesterday.'

Donohue (2003) describes this as verb phrase topicalisation. Other constituents may also be topicalised by means of verb (phrase) preposing, but this requires no PDA.

- (22) Hausa (Afro-Asiatic, Chadic)(Abdoulaye 1992: 372-373) > SOA FOCUS
a. *jefaa dà bùhun hatsii nèe Abdu ya yi.*
throw PARTICLE sack millet COPULA Abdu 3Sg.REL.PERF do
'It is throwing off/away the millet sack that Abdu did.'
b. *sanar dà Aishà làabaarìi nee na yi.*
know PARTICLE Aisha news COPULA 1Sg.REL.PERF do
'It is conveying the news to Aisha that I did.'
c. *Ali Abdu zaa ya bàa goorò.*
Ali Abdu FUT 3Sg give kolanuts
'It is to Ali that Abdul is going to give the kolanuts to.' (Abdoulaye 1992: 53-57)

In Hausa the entire verb phrase needs to be fronted, which triggers PDA. Other preposed constituents do not trigger PDA.

Güldemann et al. (2010) note a cross-linguistically recurrent functional parallelism between verb-preposing structures with a verb doublet and verb-preposing structures with a 'do'-auxiliary:

- (23) Hausa
a. *sàyé-n àbinci kòò zá sù sàyaa* > TAM FOCUS
buy:VN-GEN food moreover FUT 3P buy
b. *sàyé-n àbinci kòò zá sù yi* > TAM FOCUS
buy:VN-GEN food moreover FUT 3P do
'Buying food moreover, they WILL buy/do.' (Jaggar 2001: 542)
c. *sàyé-n àbinci nèe sukà yi* > SOA FOCUS
buy:VN-GEN food GF 3P.IPFV.DEP do
They BOUGHT FOOD. (Green 2007: 60 in Güldemann et al. 2010: 7)

The wide VP focus is only available for the PDA construction. This is similar to Korean (see (10) above).

(24) Fon (Niger-Congo, Atlantic-Congo)(Lefebvre 1991: 40-41) > SOA FOCUS

- a. *kàkú sɔ àsó yì àxi.*
Koku take crab go market.
'Koku brought the crab to the market.'
- b. *àsó sɔ yì àxi-mè wè kàkú qé.*
crab take go market-LOC PROG Koku do
'It is bringing a crab to the market that Koku is doing.'

(25) Swedish (Germanic)(Källgren & Prince 1989) > TAM FOCUS

- a. *Han läser boken nu.*
3Sg read.3sg book now
'He reads the book now.'
- b. *Läser boken gör han nu.*
read.3Sg book do.3Sg 3Sg now
'He reads the book now.' / 'As for reading the book, he does it now.'

(26) Gude (Afro-Asiatic, Chadic)(Hoskison 1975: 228-229) > SOA FOCUS

- a. *agi bəlanə nə John tə bwaya əndzii.*
CONT kill SUBJ John O leopard now
'John is killing a leopard now.'
- b. *bəlanə ci John abələ tə bwaya əndzii.*
kill CONT John kill O leopard now
'John is **killing** a leopard now.'
- c. *bəlanə nə sətə ci John ada tə bwaya.*
kill SUBJ thing CONT John do O leopard
'John is **killing** a leopard now.'

Here the verb preposing strategy and PDA have the same function.

Possible development/grammaticalisation of PDA

There is a cross-linguistically significant correlation between PDA, predicate-centered focus and other predicate. This can manifest itself in different ways:

The 'do'-auxiliary is a dummy:

- a FOC morpheme triggers PDA (Type 1)
- a NEG morpheme triggers PDA (Type 1)
- PDA occurs in marked clause types that correspond to predicate focus or subtypes thereof (Type 2)

The 'do'-auxiliary itself encodes a category/function (a subtype of predicate focus):

- operator focus
 - truth value focus
 - TAM focus
- state of affair focus

While in some languages a specific function can be expressed optionally by 'do'-periphrasis, in others this strategy is obligatory. I argue that if for a given form-function relation both [+obligatory periphrasis]- and [-obligatory periphrasis] -languages can be identified, then we are dealing with a likely grammaticalisation domain.

Some examples of optional PDA in predicate-focus constructions are given below:

Atkan Aleut (Eskimo-Aleut)

Atkan Aleut marks contrastive events by means of PDA.

- (27) a. *saǵaǵulaq quyug̃i-hlix macuq.*
not.sleep.1Sg lay.down-only do.1Sg
'I did not sleep, I only lay down.'
- b. *hiisaxta-hlix manax...*
say-only do.3Sg
'He said only...' (Bergsland 1997: 215)

Bergsland (1997: 215): The lexical verb in such PDA constructions is marked with a CONTRASTIVE morpheme in most cases. However, this is not always the case, so the same function can be encoded in a 'do'-auxiliary directly.

This might in fact be analysed as ongoing grammaticalisation of the form-function relation 'do'-auxiliary=predicate focus (trigger morpheme encoding a function/category > direct encoding).

Basque (Isolate)

There is dialectal variation with respect to productivity as well as function provides an example that shows optionality of periphrasis:

- (28) A: *zer gertatu zaio zure aita-ri?*
 what happen Aux your father -DAT
 'What happened to your father?'
- B: a. *hil da gure aita.*
 die Aux3Pl.POSSESSIVE father
 'My father died.'
- b. *hil egin da gure aita.*
 die do Aux 3Pl.POSSESSIVE father
 'My father died.' (Ortiz de Urbina 1989: 226)

Ortiz de Urbina (1989: 226, 265): Option a.: truth value focus – the assertion is focussed
 Option b.: state of affairs focus – the event is contrasted with other events

This functional contrast brought about by a periphrastic/non-periphrastic distinction is only available in certain dialects.

Korean

In interrogative sentences the PDA option is not available, unless it contains two contrasting propositions (Cho 1994):

- (29) a. *Sam-i o-ess-ni?*
 Sam-NOM come-PAST-Q
 'Did Sam come?' (Cho 1994: 249)
- b. *John-i o-ki-lul ha-ess-ni, cenhwaha-k-lul ha-ess-ni?*
 John-NOM come-NML-ACC do-PAST-Q phone-NML-ACC do-PAST-Q
 Literally: 'Did John come or call?'
 Semantically: 'John neither came nor called.' (Cho 1994: 239)

Ha-periphrasis obviously licenses the juxtaposition of clauses to put them in a contrasting relation

Chukchi (Chukotka-Kamchatka)

In Chukchi PDA optionally highlights the lexical verb (SOA FOCUS). If a converb occurs with an inflected 'do'-auxiliary, the complex [VCONV + AuxFINITE] functions as the main predicate. The contrast between the two functions of converbs in Chukchi is exemplified in (30):

- (30) a. *wak?otwa-ta čam?am*
 sit-CONVERB impossible.ADVERB
re-nli-η-yn qora-ηy.
 FUT-return-FUT-2Sg/3Sg reindeer-ABS
 'By sitting you won't return the reindeer.'
- b. *ytlon ym?yloŋet wak?otwa-ta i-g?i.*
 3Sg.ABS all.day.long sit-CONVERB do-3Sg.AOR
 'All day long he did sit.' (Nedjalkov 1994: 334)

According to Nedjalkov (1994: 334) a suitable context for such a periphrasis is that of opposed action/events, as in (31):

- (31) *ewyr taŋ-ŋŋ ?ytwytku-te n-?-it-tyk,*
 if good-COMP hunt.in.boat-CONV 2-COND-do-2Pl
n-?y-mkytji-tyk ryrk-o-k.
 2-COND-kill.much.game-2Pl walrus-kill-INF
 'If you hunted, you'd kill a lot of walrus.' (Nedjalkov 1994: 334)

(This is in fact an instance of Type 4 periphrasis.)

This use of periphrasis finds a parallel in Ndjébbana (Burarran), where PDA optionally expresses counterfactuality, i.e. an event was going to happen, but did not (McKay 2000: 223). Other

categories are regularly expressed inflectionally on the lexical verb. The counterfactual form is always accompanied by the negative element *kóma*.

- (32) a. *kóma nga-ya-rarradja-ngóna.*
 NEG 1.A-1.O-clean-CF
 'I did not clean it.'
- b. *kóma na-rórrddja nga-yangka-yína.*
 NEG INF-clean 1.A/1.O-do-CF
 'I did not clean it.' (McKay 2000: 224)
- c. *ngédja dja-ka-yangka?*
 what 2.A/3.O-IRR-do
 'What are you going to do?' (McKay 2000: 214)

The inflectional variant is probably older than the periphrastic variant and there is also dialectal variation McKay (2000: 223): .

Possible further development

Güldemann (2003) suggests a possible further development from predicate focus markers to progressive markers. The progressive highlights the procedural quality of an event. My data seems to provide some evidence for this claim. Progressive aspect as a category directly encoded by 'do'-auxiliaries is indeed quite common (12 out of 52 languages that encode categories in the auxiliary). The proposed development becomes clear in these two examples from English based creoles:

- (33) Bajan (Pargman 2004: 8)
we da walk to work.
 1Pl do walk to work
 'We are going to work.'/'We go to work habitually.'
- (34) Gullah (Pargman 2004: 4)
dem duh eat and duh laugh.
 3Pl do eat and do laugh
 'They were eating and laughing.'

Here the 'do'-auxiliary brings about a PROGRESSIVE or HABITUAL sense. In that it differs from its verum focus function in English sentences such as *We do walk to work*.

Lehmann (1995: 31) notes that in Irish English a 'do'-auxiliary in declarative sentences brings about habitual aspect rather than predicate focus:

- (35) *He does plough the field for us.*

Another example: Cornips (1998: 14): Unlike its Type 2 dummy use in the Heerlen variety of Dutch the 'do'-auxiliary encodes habitual aspect directly.

If we assume that *do* became grammaticalised as a predicate focus marker first, the presumed path towards aspects that highlight the procedural character of an event seems likely in the light of these languages.

Grammaticalisation of PDA thus runs like this:

1. PDA may occur in a given language as an optional alternative for the expression of a specific function.
2. This form-function-relation becomes obligatory (the standard alternative) for the expression of this function.
3. The 'do'-auxiliary itself may then encode the function that was originally subject to speaker choice of periphrastic vs. non-periphrastic expression.

For Type 1 this means that...

... a given language uses inflections or particles that have these functions and
 ...these elements trigger obligatory PDA

In several languages the 'do'-element encodes a function/category directly. These functions correspond to those associated for the trigger morphemes. All forms of predicate-centered focus can be marked by a 'do'-auxiliary directly, except sentence/predicate negation.

The trigger morphemes of Type 1 periphrasis are functionally more diverse than the functions that can be encoded directly in 'do'-auxiliaries. However, the data has shown that the latter is a subset of the former. While the trigger morphemes are quite commonly members of a closed class in a

Type 1 language, the 'do'-auxiliary in its fully grammaticalised stage usually only encodes one function, i.e. it is much more specific.

Type 2 PDA comprises cases of highlighting not only the predicate, but also the whole clause or argument NPs. If Type 2 PDA is obligatory, this represents the final stage of grammaticalisation. Topicalisation/focalisation of the predicate or parts thereof can be associated with non-canonical word order, which in turn triggers PDA.

Number of languages that show a correlation between predicate-centered focus and PDA

Type 1 PDA in predicate-centered focus constructions:

trigger morpheme: 6

negator as trigger: 16

Direct encoding of predicate-centered focus in 'do'-auxiliary: 13

Type 2 PDA:

optional: 7

obligatory: predicate focus 5, clause focus (entire clause) 2

(PDA also occurs in argument NP focus constructions in 3 languages)

Type 4 PDA: 1

Abbreviations:

A, agent; ABS, absolutive; ACC, accusative; AOR, aorist; CF, counterfactual; COMP, complementiser; COND, conditional; CONT, continuous; CONTR, contrastive; CONV, converb; DAT, dative; DC, declarative; DIST, distant; FUT, future; GEN, genitive; INF, infinitive; NEG, negative polarity; NOM, nominative; NML, nominaliser; O, object; PERF, perfect, Pl, plural; POSS, possessive; PRED, predicate marker; PRES, present; PROG, progressive; Q, interrogative; REL, relative; Sg, singular; SOA, stat-of-affairs SUBJ, subjunctive; TOP, topic; VN, verbal noun

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