A semantically rich 'do'-support verb in the Camuno dialect of northern Italy

Abstract

In the Camuno dialect of northern Italy 'do'-support may be used to form the interrogative. In some varieties this is optional, and it co-exists with the alternative interrogative method of using the main verb alone. Through an elicitation experiment participants produced their preferred version of a question based on a certain main verb with given context. The likelihood that 'do'-support was used varied according to the supported verb's semantics and the context pragmatics, specifically: a) the degree to which the verb denotes activity (directly or indirectly); and b) the role of the subject as an effector, or 'do'-er of that activity. Unlike for the English 'do'-support in English, a syntactic function does not seem relevant for Camuno. The study shows that: 1) even if, syntactically, the support verb resembles an auxiliary, it may have full lexical content; and 2) that there exists a credible grammaticalisation pathway from a lexical 'do' verb to a semantically bleached, contentless 'do', seemingly motivated by a social preference for the 'do'-support construction and a desire to simplify the interrogative system.

Keywords: do-support, lexical semantics, auxiliary verb, grammaticalization, grammaticalisation, Italian dialects

1 THE FUNCTION OF 'DO'-SUPPORT

We understand the *do* in English *do*-support (DS), as a 'dummy' verb. Noting that *do* is compatible with all main verbs, even that most stative verb 'know' (1), we conclude then that DS-*do* has no meaning and is purely functional.

(1) Do you know the answer?

DS produces a word order where a sentential adverb is consistently placed before rather than after the lexical verb, so leaving verb and complement adjacent. This produces the characteristic modern English order of Adv-V_{lex}-O (2) in all syntactic contexts (affirmative and negative declarative, and interrogative), an order which differs from the Romance order of V_{lex}-Adv-O (3).

(2) Do you often eat apples?

(3)

Mangi	spesso	le	mele?	(Italian)
eat.PRS.2SG	often	the	apples	

In generative syntax this effect was explained through the concept of verb raising (Pollock, 1987; Chomsky 1995): in modern English, because the main verb does not raise out of the verb phrase, *do* must be inserted in I (later called T) to prevent the derivation from crashing (hence Chomsky's (1957) reference to 'dummy' *do.*) From that perspective, the purpose of the *do* of DS is solely syntactic.

Seen in this light, the report of a rare instance of 'do'-support in a Romance language, the dialect of Monno in Upper Val Camonica, Lombardy, northern Italy, was for the original authors Benincà & Poletto (2004: B&P), something of an enigma. As the Monno dialect has verb raising, DS is not needed for the syntactic function attributed to it in English.

This paper will instead suggest that the support verb *fa* 'do' as used in the Monno dialect is in fact a remnant of a real verb meaning 'do'. Research by this author (Xxxx 2021) has shown *fa* 'do'-support (FS) to be present throughout a 45 km stretch of Val Camonica within the valley dialect known as Camuno. Although in the Monno dialect, 'do'-support is essentially obligatory, in most dialects lower in the valley, it is optional. In those dialects speakers have, as in historical forms of English, two ways to make a question: for example, both 'what do you say?' and 'what say you?'

Experiments reveal that speakers of optional FS dialects tend to use FS more frequently with verbs that describe activities rather than states. This is best explained by their *fa* being not a dummy verb, but one with a lexical content resembling more or less that expected in main verb 'do'. In contrast, in dialects where FS use is essentially obligatory, such as the Monno variety, the support verb *fa* is employed regardless of the semantics of the supported verb, and so is a semantically bleached shell. Between the dialects with most and least optionality in use of FS, there is a continuum which represents a grammaticalisation cline (Xxx forthcoming).

Although in this work, there is no space to make the comparison, it raises the question of whether the pathway of grammaticalisation of English DS was similar. If true, it would be fairer to regard the *do* of English DS not as a dummy verb but as a relict of actual 'do'.[1]

This paper makes the case that the lexical content of *fa* in Camuno *fa*-support is that of 'do'. The account begins in **Section 2** by asking what 'do' actually means, and so what characteristics might be expected from a construction with a lexical 'do' support verb. **Section 3** describes briefly the syntax of Camuno FS. **Section 4** describes the experimental evidence for the degree of lexicality of the support verb. It includes a classification of the experimental verbs by subject thematic role, a review of the methodology of the experiment, and results for three runs of the experiment, each with a different selection of verbs. **Section 5** brings together the observations and discusses the ramifications of the conclusions.

2. Likely characteristics of a 'do'-support with a lexical 'do' verb

It is generally agreed that 'do' is a generic verb describing activity, that can be substituted for any verb for which it is a hypernym. Two general definitions in the Oxford English Dictionary of 'activity' are that it is: 'the state of being actively occupied; brisk or vigorous action; busyness, liveliness, vigour' and 'the state of being active; the quality or condition of being an agent or of performing an action or operation; the exertion of energy, force, or influence.'[2] These definitions nicely capture qualities that semanticists have found very difficult to separate: that 'do' indicates vigour and therefore is closely linked in the mind to motion, but also that it is connected to agentivity of the subject. It is probably fair to say that everyone's concept of 'do' falls within this range, but between people there is slight variation.

The meaning of main verb 'do' is demonstrated for English and Italian through its use in a question (4); to provide the generic activity sense through 'do' while details of the activity are left to an event nominal complement (5); or as a substitute for the activity predicate ('buy my vegetables in the market') (6). In its use in 6 it is also known as a 'pro-verb', with the English pro-form *so* or *it* and Italian *l(o)* referring to the entire event.[3]

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[1] For the English support verb *do* (also known in the literature as 'periphrastic do'), a possible origin from a causative support *do* verb has been suggested (Ellegård 1953), although not universally adopted and there is no space to argue this issue here. There is obviously a close relationship between 'do' and 'cause' and in many languages they are homophonous (Jäger 2006; Wierzbicka 1994:473–4; van der Auwera 1999:466). Note however that the two are semantically different in that 'do' is a manner verb (so can be modified by adverbs of manner) and 'cause' is a result verb (and cannot be so modified). (For a general description of the distinction between manner and result verbs, see Rappaport Hovav & Levin 1998, 2010.)

[2] OED, www.oed.com accessed 20/10/2022.

[3] In the Italian literature, this use is sometimes referred to as *fare vicario.* In the modern language *l(o)* 'it' is more commonly used as the pronominal; in Old Italian *così* 'in this way, so' is found (see Pelo & Consales 2006). There is also another relevant Italian use of *fare* 'do' which seems to have no English equivalent: the construction *fare sì che / fare in modo che* + proposition (lit. to do so that + X). This is distinguished from the

(4) a. What are you doing?
b. Cosa stai facendo?
what stay.PRS.2SG do.GER
b'. Cosa fai?[4]
what do.PRS.2SG

(5) a. I'm doing the shopping.
b. Faccio la spesa.
DO.PRS.1SG the shopping

(6) a. I usually [buy my vegetables in the market]
but I only [do so/it] if I have enough time.
b. Di solito [compro la mia verdura al mercato]
often [buy.PRS.1SG the my vegetable at.the market
ma [lo faccio] solo se ho abbastanza tempo.
but [ACC.3SG= do.PRS.1SG] only if have.PRS.1SG enough time

The use in 6 constitutes the syntactic test known in English as the *do-so/it* test. It is worth looking in more detail at this test, and with a broad spectrum of verbs and predicates. They are classified according to the system of Van Valin (2005: Chapter 2) a modified Vendlerian system based on aspect. The term 'effector' replaces 'agent' but, unlike the latter, implies nothing in terms of the subject's intention or volition.

From examples 7 and 8, it is clear that *do-so/it* can replace an activity (7), or active accomplishment (8) predicate, which both have a (human) effector subject, but 9 shows it cannot replace a stative predicate with experiencer subject. From this, it could be concluded either that *do so/it* is either reacting to the activity component, or that it requires a human effector subject, or both.

(7) Jeff [runs for half an hour each day] and he [does so/it] whatever the weather.
('run' activity verb with effector subject, in present-habitual)

(8) Last night my son [ate all the cupcakes intended for the party] and he [did so/it] even though I'd explicitly told him not to touch them.

Camuno use of *fare* + infinitive by the presence of the complementiser (*che*) and the possibility of insertion of adverbials between the two (see examples from Old Italian in Pelo & Consales). Note furthermore that the verb in this construction is 'do', not 'cause' because of the possible use of manner adverbs. Interestingly, those authors call this a 'causative' use, which seems true only in the sense that it adds a force, or emphasis, to the construction.

[4] Italian and Camuno allow use of the simple present tense, here *fai* (do.PRS.2SG) to indicate a short interval of time, although the present continuous, which in Italian would be *stai facendo* (stay.PRS.2SG do.GER), and in Camuno (Esine) *he=t dré a laurà* (be.PRS.2SG=SCL.2SG behind to work.INF), is more appropriate for a longer ongoing activity.

('eat all the cupcakes intended for the party' active accomplishment predicate, single event in past)

(9) *Jennifer usually [knows all the answers] and she [does so/it] even without much studying.

('knows' stative verb with experiencer subject)

This same general notion is supported by 10 with 'break (trans)', a causative predicate with human causer subject and an implied causing activity (so the causer is also an effector), where use of *do so/it* is fine. Note that there is no contrast with 11 where the subject is an unintentional, therefore non-agentive, effector. From this is concluded that the core meaning of 'do' is one of 'activity' and requires a 'do-er', or effector subject (as per the dictionary definition above), although not strictly an agentive one.

(10) Maria usually [breaks eggs with one hand] and she [does so/it] while using the mixer with the other.

('break (trans)' causative verb with effector and agentive subject, in present habitual)

(11) Arthur often [breaks his glasses by sitting on them] and he [does so/it] even when sober.

('break (trans)' causative verb with effector but non-agentive subject, in present habitual)

The test is applied below to some verbs of intermediate categories to see whether this helps further refine the notion of 'do'.[5] Examples 12 and 13 below both use the achievement verb with theme-subject, 'break (intrans)'. These predicates describe an event (i.e. something 'happened') rather than a state, but the event is not instigated by the clausal subject.

(12) ?The plank [broke], but it wouldn't have [done so/it] if you hadn't bounced on it.

('break (intrans)' achievement with theme subject, example from Ross (1972: Ex 74b)

(13) #?The plank [broke] but it wouldn't have [done so/it] if the wheelbarrow hadn't been overloaded.

('break (intrans)' achievement verb with theme subject, my example)

Most (although not all) speakers would agree that 12 seems reasonable, despite the fact that the activity that could have indirectly resulted in the plank breaking is referred to in a separate clause. Yet 13 seems odd because it suggests that the plank broke itself, and did so on purpose (perhaps to spite the person who overloaded the wheelbarrow). Therefore whether

[5] Grammaticality judgements on the sentence with the non-active eventive verbs are debateable and vary considerably between speakers. They are used to make the reader pause and consider what 'do', when used in a particular context, means for them. It is argued that for all speakers, activity and agency (in varying degrees of volitionality) are the important factors, but how tight a definition of 'do' any one speaker uses is a personal choice. It is also likely that *do-so* will be more acceptable than *do-it.*

or not *do-so/it* is appropriate seems to depend on whether activity is part of the pragmatics of the situation, rather than that it is directly encoded in the verb (as noted by Ross 1972). So having an effector that is the grammatical subject, although prototypical for 'do', is not essential (at least for most people).[6]

Similarly, note further that although *do-so/it* works fine with the lexical causative 'break (trans)', it does not seem appropriate with all causatives, such as with 'give' in 14. The verb 'give' is a causative denoting a change in possession and has a human causer subject, but it lacks the obvious causing activity of 'break (trans)'. In this example the subject is also acting unintentionally, further weakening compatibility with 'do'. This causer is then not really a 'do-er'.

(14) #?Last winter Sandro accidentally [gave the entire office Covid] and he [did so/it] because he refused to wear a mask.
('give' causative with effector subject)

The general notion of 'do' as brought out in its use as a pro-verb, should therefore be slightly modified from the core meaning described above. It is associated with an event that is connected in the mind with activity, and where an effector, which is prototypically also an agent, is responsible for that activity. Although the effector is normally also the clausal subject, that is not essential.

Our understanding of the concept of 'do' is obviously critical to the topic of this paper for which a general research question is:

- Is the full meaning of 'do', as understood from its use as a pro-verb, ever present when 'do' is being used as a support verb?

Obviously that is not the case for *do*-support in present-day English. This is because *do* supports verbs of all semantic types, including the experiencer-subject, epistemic verb 'know', as in 15 (here in its optional use in the declarative as an intensifier).

(15) You might think his entire wardrobe was jeans and T-shirts but I **do know** he dresses better when he goes to fancy restaurants with his new girlfriend.

In 15, the subject of the main clause, *I,* is both the subject of the support verb, *do,* and the supported verb, *know.* Yet as the subject of *know* is an experiencer, this means that this variety of *do* must be compatible with that kind of subject. However example 9 above shows

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[6] Up until this point in the discussion, there is a good correspondence between use of 'do' and the types of verbs which, in the Role & Reference Grammar (RRG) lexical decomposition system (as per Van Valin 2005: Chapter 2), contain a component **do'** and so take an effector subject. And, as shown later in this paper, the RRG decomposition system would also largely explain the appropriateness of use of *fa* 'do' with the different supported verbs. However, there are three main reasons why the RRG decomposition system is not given a more prominent place in this discussion. Firstly, the effect of the presence of activity in the context, so the pragmatic use of the verb, is not part of the semantic breakdown. Secondly, the RRG lexical decomposition system (in its simpler form) fails to capture the difference between a causer-effector (as in 'break (trans)') and a causer-not-really-effector (as in 'give'), or the minor, gradational differences between the stative verbs. Lastly, as regards use of *fa* 'do' + infinitive, there is also an idiomatic component of meaning to the construction (Xxx, forthcoming, in revision a,b) which is more than the semantic sum of the parts.

that with the semantically rich pro-verb, *do*, that is not possible. Therefore, if the modern English support verb came from a main verb 'do' associated with 'activity', it has lost its semantic content.

Theoretically, the process of semantic loss during grammaticalisation, a process known as semantic bleaching (Hopper and Traugott 2003: 19–38), could occur either concurrently with the creation of the support verb structure, or afterwards.[7] Section 4 explores the latter idea, and shows how an early-stage 'do'-support construction would behave semantically if it contained a semantically rich 'do'. It is preceded by Section 3, which gives a brief description of the Camuno dialect in which FS is found, and the syntactic use of *fa* 'do' as an interrogative support verb.

3. *FA*-SUPPORT (FS) IN THE NORTHERN ITALIAN CAMUNO DIALECT

Within Val Camonica in 2017-2022, FS was still being used in dialects throughout a 45 km stretch of the main valley from Esine in the south, in the area known as the Middle Valley (MV), to Monno in the north and Vezza d'Oglio in the northwest, in the Upper Valley (UV), (Xxx 2021), as shown on Figure 1. In most of the UV dialects, FS is largely obligatory (with all verbs except 'be' and 'have') and so a grammatical necessity; in most of the MV dialects it is optional to varying degrees, and its use could be described as pragmatic.[8]

[7] This paper systematically uses the term 'support verb' to describe *fa* in the construction: finite *fa* + infinitive. This terminology avoids any determination on whether *fa* is a main verb or an auxiliary, the topic of which is another paper (Xxx, in rev. a). The term 'light verb', which indicates a functional verb with verbal or nominal complement which contributes some of the argument structure to a complex predicate (Butt & Lahiri 2013), is also considered too specific to use without further justification.

[8] There are exceptions to both of these generalities. In the Ogliolo Valley, which is the western arm of the UV, around Corteno Golgi, FS is optional; and in and around Bienno in the MV, FS is largely obligatory.

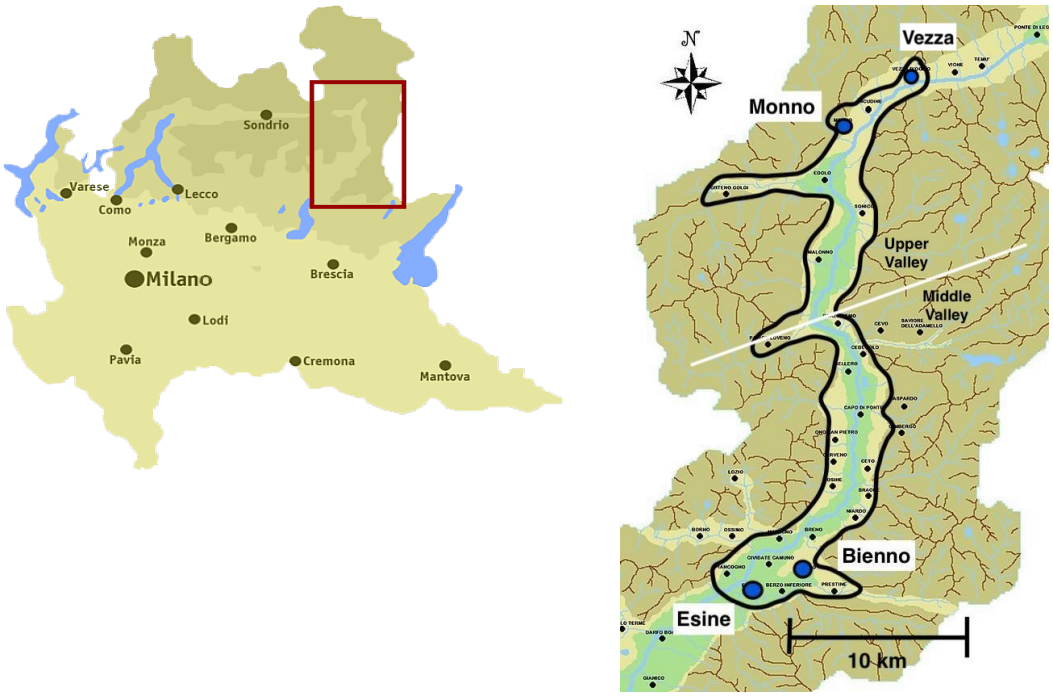


Figure 1: Map of Val Camonica showing distribution of FS in 2017-22

Apart from the presence of 'do'-support, Camuno is in most ways a fairly typical northern Italian dialect.[9] The most noticeable difference from standard Italian is in the obligatory presence of subject clitics, which express person, gender and number agreement with any subject (lexically present or semantically assumed). In the declarative the subject is referenced in a proclitic (16), and in the 'normal' interrogative (17 to 19), by an enclitic on the main verb. That interrogative type is therefore commonly referred to in the literature as having subject clitic inversion (SCI). All examples here are from the Esine dialect which has both the FS and SCI interrogative methods.[10]

[9] Despite the name 'Italian' dialects, all these dialects are descendants of Latin, as is Italian itself, which is based on a Tuscan dialect.

[10] The orthographic system used here is a simplified version of that used by Camunans and is based on Italian with the addition of two German letters for rounded vowels ö = /œ/; ü = /y/. A word-initial vowel is commonly omitted when preceded by another vowel. For simplicity, accents which denote the position of stress within the word, and/or for 'e' or 'o' whether the stressed vowel is /e/ or /ɛ/, /o/ or /ɔ, respectively, have been omitted except where they serve to distinguish the infinitive from the finite verb. With the infinitive, in almost all cases the stress is on the final vowel (so compared to Latin and Italian, Camuno is missing the *re* ending: e.g. mangià); with the finite verb, the stress in the present tense is usually on the first syllable, e.g. màngia. The reader is referred to the forthcoming dictionary of the Camuno (Esine) dialect by Vittorio Volpi where a fuller system is explained. To follow standard glossing procedures, clitics are here separated from the word to which they are otherwise attached, with '='. In Camuno as in Italian, proclitics are written separately and enclitics are attached to the verb.

(16) Maria la màngia ‘l peh da hena. (Declarative)
Maria SCL.3F.SG= eat.PRS.3SG the fish for supper
‘Maria [is eating] / [(usually) eats] fish for supper.’

(17) Mànge=la ‘l peh da hena, Maria? (SCI interrogative)
eat.PRS.3SG=SCL.3F.SG the fish for supper Maria
‘[Is Maria eating] / [Does Maria (usually) eat] (the) fish for supper?’

(18) Mangerà=la ‘l peh da hena, Maria? (SCI in future tense)
eat.FUT.3SG=SCL.3F.SG the fish for supper Maria
‘Will Maria eat (the) fish for supper?’

Any clitic object is procliticised to the finite verb, as in 19 where the lexical object is topicalised.

(19) ‘l peh, al mànge=la da hena, Maria? (SCI, clitic obj.)
the fish, ACC.3M.SG= eat.PRS.3SG=SCL.3F.SG for supper Maria
‘(The) fish: [Is Maria eating] / [Does Maria (usually) eat] it for supper?’

The alternative interrogative form, FS (20 to 22 below), is a trait unique to Camuno. It involves addition of the support verb *fa,* a verb not present in the corresponding declarative. This expresses tense and person and bears the subject enclitics, with any object clitics being encliticised to the following infinitival verb (21). FS is used to form an interrogative in all tenses that do not have their own auxiliary (‘have’ or ‘be’): the present, future (22), conditional and imperfect. Although these examples are drawn from the MV Esine dialect, there are no relevant syntactic differences with the UV Monno dialect. In fact all of the surface syntactic traits of FS observed by B&P in the Monno dialect were found in the Esine dialect.[12,13]

(20) Fa=la mangià ‘l peh da hena, Maria? (FS)
do.PRS.3SG=SCL.3F.SG eat.INF the fish for supper Maria
‘[Is Maria eating] / [Does Maria (usually) eat] (the) fish for supper?’

(21) ‘l peh, fa=la mangià=l da hena, Maria? (FS, clit obj.)
the fish, do.PRS.3SG=SCL.3F.SG eat.INF=ACC.3M.SG for supper Maria
‘(The) fish, [Is Maria eating] / [Does Maria (usually) eat] it for supper?’

(22) Farà=la mangià ‘l peh da hena, Maria? (Future tense)
do.FUT.3SG=SCL.3F.SG eat.INF the fish for supper Maria
‘Will Maria eat (the) fish for supper?’

[12] See Xxx 2021:Appendix A3b for translations of sentences into the Esine dialect from the *Atlante Sintattico d’Italia* (ASIt) questionnaire No. 2.

[13] However, see Xxxx (2021) and Xxxx (in revision a) for an analysis based on the particular FS question meaning that interprets (at least) optional FS as having a biclausal syntactic structure. That differs from the interpretation of B&P which assumes (as there is no overt syntactic evidence to the contrary) it is monoclausal.

There is no synthetic past in Camuno (as in Northern Regional Italian), only the analytic past, the so-called *passato prossimo*, which uses a 'have' or 'be' auxiliary (23) with subject enclitic in the interrogative. In this way, in a dialect with obligatory FS, all tenses use a support verb in the interrogative and so are parallel in structure.

(23) A=la mangiàt 'l peh da hena Maria? (Past tense)
have.PRS.3SG=SCL.3F.SG eat.PTCP the fish for supper Maria
'[Has Maria eaten] / [Did Maria eat] (the) fish for supper?'

Note also that *fa*-support resembles the structure produced from when the support verb is a modal, as with this object clitics also embed on the following infinitival verb: compare 24 to 21 above.

(24) 'l peh, öle=la mangià=l da hena, Maria? (modal, clit obj.)
the fish, want.PRS.3SG=SCL.3F.SG eat.INF=ACC.3SG for supper Maria
'The fish, does Maria want to eat it for supper?'

Both FS and SCI can be used to make both yes/no and wh-questions, although to minimise the number of variables only yes/no-questions were part of the elicitation experiment (to be described in Section 4).[14]

Unlike with English DS use of FS, in Camuno is restricted to the interrogative, and all instances of a support verb *fa* in the declarative are recognised as causative. If the context was not sufficient to distinguish causative and non-causative uses, the two *fa* support verbs, 'do' and 'cause' are also distinguished by a different object clitic position (clitics raise with *fa* 'cause' but not *fa* 'do') and usual presence of a causee in the causative construction (see Xxxx 2021: 51-6; Xxx forthcoming). In some dialects they also have a different pronunciation: the interrogative support verb having an aspirated pronunciation as *ha,* and the causative verb (and main verb 'do, make') being *fa.*

In English, the obligatory use of DS in the negative declarative is attributed to the need to support the clitic *not/n't.* However, for this function a support verb would not be

[14] Wh-interrogatives display the second unusual trait of the Camuno dialect, that the wh-item is often in a post-verbal position rather than fronted.

(i) [Fa=la mangià] / [Mànge=la] ché da hena, Maria?
do.PRS.3SG=SCL.3F.SG eat.INF eat.PRS.3SG=SCL.3F.SG what for supper Maria
'What [is Maria eating]/[does Maria (usually) eat for supper?'

This trait is not unique to Camuno and is found in other Lombard and Swiss-Italian dialects (e.g. Munaro 1999; Manzini and Savoia 2005: Vol 1, 586–96). For Camuno at any rate, it is inaccurate to say that the wh-item is 'in situ' because the post-verbal position for the wh-item may also be used for subject interrogatives (and FS is also possible, unlike in English). The interested reader is referred to Xxxx 2021:81-97 and references therein for a fuller discussion. Suffice it to say that both this author, and Benincà and Poletto (2004), found no correlation between the position of the wh-item and use of FS versus SCI. However, this additional complication, and the fact that wh-questions are commonly clefted using the declarative form (without FS) in the embedded clause, are two further reasons why only yes/no-Qs were used in the elicitation experiment.

required in Camuno, because it uses a post-verbal adverb, *mìa/mìga* for negation rather than the pre-verbal *non* of standard Italian (25).

(25) Da hena, Maria la màngia mia ‘l peh. (Neg. declarative)
For supper Maria SCL.3F.SG= eat.PRS.3SG not the fish
‘For supper, Maria [isn’t eating] / [doesn’t (usually) eat] (the) fish.’

One other trait of the FS construction – a semantic trait – is relevant here. In optional FS, many speakers who can make a question with FS or SCI, do so according to what they are trying to express, both linguistically and socially, as described in more detail in Xxx (2021: Chapter 5) and Xxx (in revision a,b). In choosing to use FS, these speakers may be indicating that they already have an idea of the answer to the question (so the question is presuppositional), or are expressing their emotion (and the question is subjective), or are seeking the opinion of the interlocutor (and the question can be used to engage the addressee in conversation). The latter is linked to the social meaning of FS: that it is the more polite and respectful form, as if the questioner was ‘reaching out’ and attempting to build a relationship with the addressee. For a possible connection between the emphasis provided by the ‘do’ semantics in *fa,* and how this has produced the presuppositional meaning, the reader is directed to Xxx (forthcoming; in revision a).

4. A ‘DO’ SEMANTICS FOR *FA*

4.1 Semantic preferences of fa

In the initial phases of the research, which were focused on the syntax, dialect questions were obtained by asking speakers for oral translations of questions from Italian. The questions were generally accompanied by contexts presenting a credible situation under which the relevant question might be asked. By taking the speaker’s first answer and ‘spontaneous’ Camuno translation of the Italian question, it became clear that FS was preferred with some semantic types of verbs, and SCI with others. For example, in most MV dialects, FS would be most likely to be used with verbs connected to activity and with effector subjects, e.g. ‘eat’ in 26, less likely with eventive (i.e. non-stative) verbs where motion was not lexicalised (even if there was a pragmatic suggestion), e.g. ‘arrive’ in 27, and very unlikely, or never suggested, for use with a stative verb describing a permanent state, such as ‘think’ in 28.

(26) Fe=t mangià=la, la carne?
do.PRS.2SG=SCL.2SG eat.INF=ACC.3F.SG the meat
‘Do you eat meat?’ FS ✓eff-subj activity

(27) ? De holit fe=t rüà ann orario a mèha?
usually do.PRS.2SG=SCL.2SG arrive.INF in-time for mass
‘Do you usually arrive on time for mass?’ FS ? theme-subj, achvmt

(28) *# Fé=t penhà che ’l hàeh anna bùna idé?
do.PRS.2SG=SCL.2SG think.INF that SCL.3DEF be.SBJV a good idea?

‘Do you think it would be a good idea?’ FS *# exp-subj, stative

However, if the speaker was asked whether 28 was GRAMMATICAL for them, they were usually unable to say: after all, if they would not generally use such a form, whether or not it was ungrammatical (*) or just pragmatically unacceptable (#) was not a relevant distinction for them. In fact, after some discussion, in most instances (for optional FS speakers), it became clear that the less likely form of the question (whether SCI for 26 or FS for 28) was possible in their dialect if the context were changed, making their judgement one of pragmatic unacceptability.[15] From this, it was concluded that the best information to gather was the most PROBABLE form of the question (FS or SCI) for the verb in common usage, in a likely situation.

4.2 Elicitation experiment methodology

Recorded questionnaire

The method chosen attempted to mimic the natural production of a question by having a speaker react to an imagined situation and be prompted to ask a certain question of one of the participants in that scene. Context with question request were recorded in a local dialect to get the participant thinking in Camuno and minimise any possible interference with Italian. By using the question request, the speaker was presented with a declarative form and it was their task to rephrase it as an interrogative. They were encouraged to use intonation (and gestures) to make their question seem as real as possible, and so capture the pragmatics of the context in their choice of form. (This also made them focus on the situation described and not answer by rote.). Example 26 provides an English translation of one of these contexts, with question request also in the original dialect.

(29) (Enrica told you that she didn't want to work on Saturday any more.
But today is Saturday and you see her in the office in front of the coffee machine.)
Domandi= ga a Enrica he la làura ‘l habet.
ask.IMP= DAT.3SG to Enrica if SCL.3SG work.PRS.3SG the saturday
‘Ask Enrica if she works on Saturday.’

The dialect of the recording might not be exactly the same dialect as spoken by the participant producing the question, but was easily intelligible. Participants were told that in making their question, they should use terms specific to their dialect – something they were used to doing as speakers of different dialects commonly interact successfully while maintaining their own grammar and lexis.

Contexts invoked common valley scenes and situations previously tested with the narrators (who had translated them orally from Italian) for their appropriateness and believability. Most of the contexts set up a plausible situation with something slightly ‘odd’ about it that induced doubt and/or needed confirmation. This was to increase the likelihood that

[15] One informant is a trained linguist. He confirmed that almost all the FS examples presented to him, including those with stative verbs (other than ‘have’ and ‘be’), were grammatical and it was an issue of pragmatic acceptability.

the question would be generated using FS, as these were two of the reasons given for its use (Xxxx, 2021: Chapter 5).[17]

In total, there have been 6 phases of data gathering yielding a total of around 15,000 examples. Three phases (P3, P4, P5) were focused on the probability of FS and used this elicitation method, and for which partial results are reported here. A full list of contexts+question requests can be downloaded from the Xyz Research Archive, together with results by speaker and community for each of these three phases.

Different voices, each speaking a slightly different MV dialect, were used for each of the three (P3), or four (P4, P5), contexts/questions per verb, so any effect from the speaker warming to, or disliking the narrator (a third person present in the situation other than the questioner and their imagined interlocutor), was averaged out for each verb and consistent between the different verbs. The experiment was very successful in producing a measurably different degree of production of FS for the different types of verb, and high degree of consistency between speakers in that choice between different phases of the experiment.[18]

Participants

The speakers selected for the experiment declared themselves to have dialect as their first language, having grown up speaking it in the family and with their friends (at least outside school). This meant that they were generally older than 55 in 2017 (i.e. born before 1962). They were almost all fluent bilinguals (even though good knowledge of Italian was not required to perform the experiment).[19]

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[17] P3 also attempted to measure the effect of contexts of different types by using one where the question would be asking for confirmation due to doubt, another where it would be asked for emotional reasons, and a third without context where the question was somewhat 'out-of-the-blue' and the question intended to be purely informational. The predicted results were that the contextless question would generate less SCI. In fact, although the emotional context produced slightly greater FS, the presuppositional and contextless context produced almost the same, and overall there was no significant difference between the three. This is probably because it is impossible to know what a speaker brings to a situation from their own background, in addition to the information is presented to them. For this reason, in P4 and P5, all the question requests had a context with some degree of requiring confirmation for logical and/or emotional purposes.

[18] As shown in this paper, each run of the experiment (P3, P4, P5) distinguishes the three main categories of verbs by their subject thematic role (effector, theme, experiencer) and it is possible to show that the separation of categories is statistically valid because there are results for several verbs in each category. What cannot be proven statistically is the order of verbs within each category. This is because there are only 3 or 4 questions on which the verb is based and there is too much variability between the results by question. It was not possible to repeat the question for the same speaker (because the element of spontaneity would be gone), and there was a maximum number of questions that could be included in each run of the experiment (or it was too trying for the participant). The best evidence that the pattern is valid is its reproducibility between different runs of the experiment and in each run between subgroups of speakers (which for P3 and P4 can be found in Xxxx 2021:Chapter 8).

[19] The dialect of the younger speakers is often heavily influenced by Italian in terms of lexis; there is a calque on certain common Italian expressions, and the older idiomatic dialect formulations have been dropped – but that is the new, modern dialect. What was rare was for them to mix the grammar, e.g. using Italian verbal

Most speakers from each of the three phases of the experiment came from communities in the central part of the Middle Valley of the River Oglio, between Esine and Breno, and in the Grigna Valley, from the Bienno area (see Figure 1, above). P3 included some speakers from Ogliolo Valley, a tributary valley of the Upper Oglio west of Edolo, and P4 additional speakers from Bienno and nearby Prestine. P5 also sampled communities in also the upper Middle Oglio Valley north of Breno and south of Berzo Demo (at the junction of the Middle and Upper Valley), and in Val Allione, a side valley on the western side. Speaker provenance is footnoted in relevant figures below.

Variables

In the main questionnaires for each of the three experimental phases, where the aim was to measure the probability of FS use by verb and verb type, tense and person was kept constant. Tokens were in the present tense, generally with a habitual-generic meaning in the case of non-stative verbs (to prevent use of a continuous tense that employed a 'be' auxiliary and adverb)[20], and were yes/no rather than wh-questions. Other than for questions with verbs with theme subjects, the elicited questions used the 2nd person singular form.[21] P3 used three examples per verb to produce questions that, for most verbs, varied little if at all, the real difference being in the type of context. Subsequent phases, P4 and P5, both had 4 questions per verb with a wider lexical variation in questions, the aim being to determine most precisely the use per verb.

A different selection of verbs was chosen for each phase of the experiment. For practical reasons, there was a maximum number of questions and therefore verbs that could be included each time. To allow results from different experimental phases to be compared, each phase included many of the same verbs. To this basic selection, verbs from additional categories were added to more closely define which semantic components in the verb were relevant to FS use. The number of effector-subject verbs (verbs most likely to induce FS) and experiencer-subject verbs (least likely to induce FS), was kept approximately constant between the phases, but the number of theme-subject and causer-subject verbs varied. The intention was to obtain a reasonable spread of results for overall FS production from each

endings or dropping the subject clitics. A speaker who did this was not considered a reliable dialect informant and their results were not analyzed.

[20] In the use of affirmative 'do' in modern dialectal English (particularly southwest English), there is quantitative evidence in favor of a correlation with habituality, at least for past tense forms (see Jones & Tagliamonte 2004 and refs. therein). However, there appears to be no such connection to habituality for Camuno. Relative use of FS by tense was tested with minimal pairs in the present-habitual versus future (single-event) tenses in P3 and P4 and use was found to be far more likely in the future (Xxxx, 2021:203-5). This could be either due to a positive connection between FS use and perfectivity of the future tense; or between FS and future time, the greater uncertainty connected with events in the future making it more appropriate in a question (the latter explanation being preferred by Xxxx 2021). Note again that in Camuno, FS is not available in a synthetic past tense. Further tests in P5 with minimal 'pairs' in the imperfect, present-habitual, and future-habitual (as well as future-single-event) suggested that among the imperfective tenses, FS was more likely with the present than the imperfect, although this was not proven statistically.

[21] In P4, 2 of the 4 tokens of 'break (trans)' were 3rd person to allow the closer comparison to 'break (intrans).

speaker, and reasonable consistency in their overall FS use between different phases of the experiment.

Semantic classification of supported verbs

Supported verbs are classified by the thematic role of the sentence subject, of which only four are relevant here: effector, theme, experiencer and (human) causer. Determining whether a subject is an effector or theme in a given language (and the verb an active, or non-active, accomplishment, *sensu* Van Valin 2005) is not always simple. However, in Camuno, the choice of auxiliary in the *passato prossimo* tense – which is the same as in standard Italian – provides a good proxy. Thus a verb such as 'fall', commonly lexicalised in Camuno with *gnì-do* 'come-down', describes an event where the subject is a theme (undergoer) with no control over 'falling', uses a 'be' auxiliary (and is regarded as syntactically unaccusative). Conversely, a verb such as 'work' takes a 'have' auxiliary and has an effector subject (and is unergative).

In most instances, using auxiliary choice to distinguish effector and theme subject accords well with intuitive ideas of the verb semantics. For a fuller discussion of this topic, the reader is directed to Sorace (2000) and Bentley (2006 – particularly §2.3).[23] It might however appear that in using auxiliary choice as the primary criterion, the verb *andare* (Ital.)*/nà* (Camuno, Esine) 'go', is an exception. That verb, at least in its most common sense of indicating motion towards a goal, takes a 'be' auxiliary, yet the subject is an effector and potentially agentive because it is possible to add a subject-oriented adverb such as 'willingly'. Yet as demonstrated clearly by Bentley (2006: 42-3), a 'be' auxiliary is also used for other activity verbs such as the normally agentive 'run' when there is a telic, locative phrase, but 'have' is the auxiliary for non-telic uses. Given this recognised kind of alternation, the use of 'be' as the auxiliary for 'go', even though it is an effector-subject, activity verb, is predicted. Note in addition that in Italoromance generally (but unlike in other Romance languages), when 'go', is used as a support verb with verbal complement, it always maintains this sense of motion and is not being used as a purely future auxiliary. Hence (Italian) *va a raccogliere i mirtilli* (one of the tested predicates) is 'he is going (with a purpose of) gathering blueberries', not simply 'he will gather blueberries'.

Among the stative verbs, some take 'have' and some take 'be', in Camuno as in Italian, but with these, there is no obvious semantic reason for the auxiliary selection. Included in the collection of stative verbs analyzed here are two modals, *pudì* 'can, could' (in its senses of ability and possibility) and *vulì* 'want'. Modals are generally considered to enforce a stative semantics on the entire predicate (so 'I can swim' or 'I want to swim' are stative with experiencer subject, but 'I am swimming' would be active with effector subject). Both of

[23] As reflexive verbs must use 'be', an additional test is needed for single-argument verbs: whether the partitive clitic *ne,* available only to replace the undergoer role, can be used to represent the single argument. Hence (as shown here in Italian) the two relevant here are unaccusative: *rompersi* 'break (intrans)' *(Le uova), portandoli a casa, se ne sono rotte tre* '(The eggs), in carrying them home, three of them broke; *aprirsi* 'open 'intrans' *(Le finestre), con il vento, se ne sono aperte tre'* '(The windows), in the wind, three of them opened'.

these modals always use ‘have’, and unlike in Italian, in Camuno there is no ‘auxiliary switch’ according to the semantics of the complement verb.

Dataset and presentation

The datasets for verbs shown here for all three phases comprises a total of 5213 tokens and comes from 50 speakers.[24] The dependent variable is the interrogative method used: either FS (including both the *ha* and *fa* variants), or non-FS. Results have been analysed using Goldvarb.

4.3 Results

Results from all phases

Results for each phase are presented separately in the following three sections. In each, the accompanying figure shows in columns from left to right, the percentage of use of FS (increasing towards the base of the table), and the number of FS tokens out of the total. Verbs are coloured by semantic category as represented by subject thematic role. What is notable is that the same pattern is consistently observed, regardless of which speakers and communities are represented in the results, and the precise selection of verbs used to represent each category. The probability that a verb will use FS always follows this order:

experiencer subject of stative verb (green) <

theme subject non-active eventive verb (blue) **<**

human causer but **non-‘do’-er** subject (light purple) <

effector subject of activity verb (red) / **human causer** and **‘do-er’** subject (dark purple)

The best explanation for this order is that it reflects the degree to which the supported verb is compatible with a support verb that has the full meaning of ‘do’, given the fact that they effectively share a subject. (This is the same order as illustrated in Section 2 above through appropriateness of use of the pro-verb.)

Phase 3 (P3)

Combined results from 19 speakers for the P3 dataset are presented in Figure 2.

[24] For brevity, results for the verbs *rüa-ga (a)* ‘succeed’, *proà (a)* ‘try’, *finì (de)* ‘finish’, *cumincià (a)* ‘begin’, and *dehmitì (de)* ‘stop’ (all of which would be functional auxiliaries in the cartographic framework) are not shown in these tables and omitted from the discussion. For these the reader is referred to Xxxx (2021:234-240), where a comparison is made to their order in the cartographic framework.

P3 (19 speakers: core dataset)	%	FS	Tot
pudì (abil) 'can, be-able-to'	4%	2	56
haì 'know'	5%	3	56
hembrà 'seem'	5%	3	55
piadì 'please, like'	14%	8	56
penhà 'think'	16%	9	55
cohtà 'cost'	45%	25	56
dürà 'last'	49%	25	51
dà 'give'	55%	30	55
fà (anim) 'make'	63%	35	56
giühtà (trans) 'fix, repair'	65%	36	55
lidì (intrans) 'read'	65%	36	55
mangià, maià (trans) 'eat'	70%	39	56
nudà (intrans) 'swim'	76%	41	54
laà-do (trans) 'wash'	77%	43	56
laurà (intrans) 'work'	79%	44	56

Figure 2: FS use by verb/subject for P3, core dataset

Dataset: P3 core dataset, 3 Qs/verb, all verbs, 2nd ps for verbs with human subjects, 19 speakers, speakers with FS use with non-stative verbs 20-100%, effector-subject verbs >20% and stative verbs < 50%.

Speakers are from the communities of: Esine, Malegno, Cividate, Breno, Mezzarro di Breno, Campogrande di Breno, Bienno (central MV); and Lombro, Megno di Lombro, Corteno Golgi (UV, Ogliolo Valley)

The P3 results show a complete separation of the blocks of colours containing individual verbs, so each of these distinctions must be statistically significant. This is the first indication for the reader that support verb *fa* is preferentially selecting verbs which are most similar to 'do'. The division of verbs into non-stative (FS usually acceptable) and stative (FS usually unacceptable) is to be expected if *fa* maintains the 'do' semantics and the two verbs share a subject.[25] Note, however, that firstly it is not an all-or-nothing choice, and secondly there are verbs of intermediate status.

At the top of the table, the selection of (green) experiencer subject verbs includes the modal *pudì* (which, along with the other modal *vulì,* following Cinque 1999, 2006a,b,c, would be interpreted as an auxiliary verb), and several main verbs.[26] These main verbs are: two with nominative subjects and clausal complements, *haì* 'know' and *penhà* 'think'; and two with dative subjects, *piadì* 'please, like' with DP complement, and *hembrà* 'seem' with clausal complement. Whether the supported verb is syntactically main or auxiliary, or

[25] In his cross-linguistic analysis of 'do'-support, Jäger (2006:49) notes that the choice of using a 'do' auxiliary versus an alternative (e.g. 'be') often depends on the stative/active nature of the supported verb, 'do' being preferred for actives. In the German dialects, several authors have suggested a preference for use of 'do'-support with eventive rather than stative verbs (e.g. Schwarz 2004; Schönenberger and Penner 1995; Casalicchio and Perna 2012; Maienborn 2003:62). However, most of those analyses focused on the syntax and used an all-or-nothing grammaticality-based approach, not one based on likelihood given the supported verb semantics.

[26]Romance modals differ from English (and German) modals in that they have a full range of inflexions for person, number, and tense.

whether the experiencer or theme is syntactically the subject (with which the subject clitic agrees) seems largely irrelevant to whether or not the verb uses FS.

At the bottom of the table, among the (red) effector-subject verbs, note also the lack of discrimination in FS use between the three used transitively ('eat', 'wash', 'repair, fix') and those that are intransitive or are used intransitively ('work', 'swim', 'read (intrans)'). This shows two things: firstly that telicity added by the verbal complement is not a semantic determinant in use of FS[27], and secondly that the presence of an object does not make FS use more likely for syntactic reasons. The latter observation is particularly revealing because it shows that although presence of an object is a determining factor for DS in historical English (Ellegård 1953; Warner 2002), it is not relevant for Camuno.

A selection of (blue and light purple) 'other' verbs pattern in the middle. More examples of these will be provided in the results from P4 and P5. What they seem to have in common is that they all either have theme subjects, or causer subjects that are not really effectors. The P3 results demonstrate that the verbs of measure, verbs which are obligatory statives according to Rothmayr (2009: 109), belong to this theme-subject group (so are coloured blue). Just below the verbs of measure are the (light purple) verbs with causer subjects, *fà* 'make' and *dà* 'give'. As will become apparent in the next section, these two differ from verbs where the causer subject is also more obviously the 'do'-er of an activity.

Phase 4 (P4)

P4 is based on 4 rather than 3 questions per verb, and with some variety in the questions and uses of the verbs. P4 therefore establishes the position of the verb in the sequence more accurately than P3. It also includes a greater variety of verbs within each category to see if the categorical separations hold. The speakers are mostly a sub-selection of those who participated in P3. Combined results for P4 by verb, based on 10 speakers, are shown in Figure 3.

[27] Minimal pair tests with (manner) activity verbs used transitively and intransitively in the present-habitual showed that the presence of a complement made no difference to the degree of use of FS. However, it is possible that telicity is no longer part of the semantics when an event occurs repeatedly, as in habitual aspect. For this reason the same test was carried out using examples in the future tense describing a single event and it was found, again, that FS was not more common with transitive verbs (used transitively) than with intransitive verbs. Thus neither the presence of an object, nor possible telicity of the verb phrase, can be said to be favouring factors for FS. See discussion in Xxxx (2021: Section 7.4).

P4 (10 speakers)	%	FS	Tot
haì 'know'	0%	0	40
(v)ulì VP 'want (to X)'	0%	0	39
pudì (pos) - 'could, might'	3%	1	40
piadì 'please, like'	8%	3	40
pudì (abil) 'can, be-able-to'	8%	3	40
penhà 'think'	20%	8	40
fà (inanim) 'cause'	33%	13	39
rumpìh 'break (intrans)'	33%	13	40
pedà 'weigh (intrans)'	48%	19	40
gnì-do 'fall'	55%	22	40
dà 'give'	55%	22	40
marudà 'ripen'	58%	23	40
cridì (in) 'believe (in)'	60%	24	40
girà 'turn, spin'	60%	12	20
fà (anim) 'make'	69%	27	39
troà 'find'	70%	28	40
rumpì 'break (trans)'	74%	29	39
mangià, maià 'eat'	75%	30	40
fidàh 'trust'	75%	30	40
laurà 'work'	78%	31	40
laà-do 'wash'	88%	35	40
lidì 'read'	90%	36	40
nà (a) VP	90%	36	40

Figure 3: FS use by by verb/subject for P4

Dataset: P4, 4 Qs/verb, 2nd ps for verbs with human subjects, 10 speakers, speakers with FS use with non-stative verbs 40-90%, effector-subject verbs >50% and stative verbs < 40%. (Note: 2 speakers have a 'half' dataset.)

Speakers are from the communities of: Esine, Malegno, Cividate, Mezzarro di Breno, Bienno (central MV)

The same broad divisions are found as for P3, although in the P4 dataset there is no longer a complete separation of the individual verbs into distinct blocks of colour. Inclusion of more verbs has shown that some behave as atypical representatives of their assigned category. Despite this, T-tests show that the separation of (green) experiencer-subject and (blue) theme-subject verbs is still statistically significant (even with the inclusion of two green outliers *fidà-h* and *cridì in*), as is the separation of theme-subject (blue) and effector-subject (red) verbs. (In both cases the probability that the means differ by chance is $p < 0.05$).

In the P4 results, beneath the block of (green) experiencer subject/stative verbs (which is similar to P3 although with more modals – see discussion of these below) comes the group of miscellaneous verbs with theme subjects (blue). From top to bottom, this group is comprised of: causative *fà* with an inanimate (instrumental) subject; reflexive and anticausative *rumpì-h* 'break (intrans)'; and one verb of measure, *pedà* 'weigh'. The verb *gnì-do* 'fall', patterns slightly lower than the rest, perhaps because it involves motion and is suggestive of activity.

Two verbs with causer subjects (light purple), *fà* 'make' (with verbal complement) and main verb *dà* 'give' (with nominal complements), are found immediately beneath all the (blue) theme subject verbs. The four P4 questions for each verb have these complements: 'give: socks/a kiss/irritation/to eat'; 'make: go/eat/fix/miss'. With these two verbs, even though a causing activity may be implied, it is not directly described, and in this they seem different from the lexical causative *rumpì* 'break (trans)' (see below).

At the top of the (red) block of verbs with effector subjects, and patterning next to verbs with theme subjects, are the two with inanimate subjects, *maturare* 'ripen', and *girare* 'turn, spin'. They are also coloured red to indicate that the subject should be considered an inanimate effector, because participants said that they would use a 'have' auxiliary in the *passato prossimo* with these verbs in Camuno and in Italian. However, it should be noted that there are Italian speakers who would use a 'be' auxiliary and consider the subject a theme, so the effector/theme distinction with these verbs is somewhat marginal.

Two verbs normally interpreted as stative (and so coloured green) pattern outside the topmost green block: *fidà-h* 'trust' (within the red block) and, to a lesser extent, *cridì in* 'believe in' (between the blue and red blocks). The explanation that these verbs allow an agentive use, and that 'trust' and 'belief' are concepts that require some effort, (at least for these speakers given what is the object of that 'trust': politicians/the mayor/Giuseppe's predictions/that gossipy woman; or 'belief': the guardian angel/Santa Lucia/UFOs/Providence) can probably be laid aside as informants have never indicated this kind of meaning difference between FS/SCI pairs. A realistic possibility is that the verbs are being used as temporary states and that 'trust' and 'belief' can be gained or lost, so the predicate describes a change. Alternatively (and perhaps most likely), is that these verbs are naturally presuppositional, as questions based on these verbs would be most likely if the questioner had reason to suppose that the answer was 'no'. This a negative presupposition, or lingering doubt, has been shown to be a powerful motivation for use of FS (Xxx in revision a).

The lexical causative with human subject, (purple) *rumpì* 'break (trans)' patterns with the (red) effector-subject verbs. Compared to its anticausative counterpart *rumpì-h* 'break (intrans)' it uses much more FS (74% vs 33%) and patterns much lower (even with two of the questions as 3rd person questions for a closer comparison – a feature which made little difference). This can be attributed to the presence of a causing part in the semantics of *rumpì* 'break (trans)' that directly describes an activity of 'doing' (and results in 'breaking'), which is not present in *rumpì-h* 'break (intrans)'. The subject is then not just a (human) causer, but also a 'do'-er and effector.

The verb *nà* 'go' was generally found to use FS with a higher probability than any other verb. The verb in the test questions that generated Figure 3 represent its use as support verb indicating motion (for Cinque, an andative auxiliary) as in 'go to pick blueberries'. Similar very high use was also found when it was used with a locative complement 'go to Milan', and also in the meaning of 'function' with an inanimate subject 'does your car go in the cold?' (Xxxx, 2021: 196). This is explained by the very strong association with movement for the concept of 'go' even when (as in the first two uses, but not the third) the verb lexicalises the result rather than the manner of that motion.

The modals are among the collection of verbs with verbal complements included in P4 for which only *vulì* 'want' < *pudì* 'can, could' are shown here.[28] For the full selection, the reader is directed to Xxx 2021: 234-240. Suffice it to say that the degree to which these verbs are likely to use FS broadly follows their natural order in Italian or Camuno when two or more co-occur. As that relative order is also a major part of the evidence used by Cinque (1999; 2006a,b,c) to construct the cartographic hierarchy, it is also true to say that the relative degree of use of FS with these verbs follows the cartographic order of the projections. The preferred explanation is that the cartographic hierarchy reflects an underlying tendency in the human brain to order concepts from (in the order of utterance) abstract to concrete, uncertain to certain. As (main verb) 'do' describes the most tangible, observable, and verifiable concept (that of activity), so the lexical support verb *fa* 'do' is more compatible with verbs towards the bottom of the cartographic hierarchy.

It should be noted that in dialects where FS is more grammaticalised, it can be used with both *potere/pudì/podé* (Italian/Esine/Monno) in the possibility sense (27), as well as (rarely) with *volere/vulì/volé* (28a) (the latter contrary to the observations of B&P). Unlike in English, there is therefore no syntactic ban on support by *fa* of a modal. However 31a is less likely than 31b, where the modal is the support verb.

Monno

(30) Fa=l podè plöèr stasera?
do.PRS.3SG=SCL.3M.SG be.possible.INF rain.INF this.evening
'Might it rain this evening?'

(31) a. Fa=la olé ndà in pensiù?
do.PRS.3SG=SCL.3F.SG want.INF go.INF in pension

b. Öle=la ndà in pensiù?
want.PRS.3SG= SCL.3F.SG go.INF in pension
'Does she (the lady) want to retire?'

The question then arises as to whether support-verb *fa* should be included in the cartographic scale and, if so, where. The answer is that, for the *fa* 'do' of optional FS, which is the focus of this paper, a strong case can be made for not including it at all because it would be better treated as a main verb in a separate clause from the predicate it supports. The reason for this is that the particular semantics of FS question suggests an embedded structure (Xxx in revision a), and the support verb *fa* appears to have the full manner-activity semantics of main verb 'do' (the main conclusion of this paper). In contrast the appropriate classification of the *fa* of obligatory FS, which is semantically bleached, is less clear: from the evidence so far examined, it could be either a main verb in a biclausal structure, or an auxiliary in a monoclausal structure.

For the sake of argument, if the *fa* of obligatory FS were an auxiliary so could be included in the cartographic sequence, it should be placed above all the modals, as it can support all the verbs including the possibility meaning of *pudì/podé* 'can, might' and

[28] Cognates of these two modals, Italian *potere* 'can, could' and *volere* 'want', are found in all the valley dialects. However *dovere* 'must' is usually lexicalised by *avere da fare* 'have to do'.

occasionally *vulì/volé* ‘want’. When an obligatory part of the grammar, its function is best summarised as simply asking ‘is it the case that X?’ (where X is the rest of the predicate other than *fa*) so it seems best to call it an epistemic modal. Yet unlike other epistemic modals, such as ‘could, is-it-possible-that', it is asking about the certainty of a situation, not about the degree of probability. Placing it above ‘could’ in a cartographic tree therefore seems odd as it contradicts the notion of increasing modality up the scale. However, this seems to be the only place for it. (When optional, it means more ‘is it the case, in your opinion, that X?’ making it a subjective epistemic modal – see Xxx in revision a, for more detail.)

Phase 5 (P5)

A significant feature of P5 is inclusion of a larger selection of effector-subject verbs to determine if, within a single verb, the lexicalisation of manner versus result of that activity is relevant. (The interested reader is referred to Rappaport Hovav & Levin 1998, 2010, for a description of the manner/result difference.) Although several verbs and questions were recycled from P4, the selection of speakers is very different, with only 6 of 27 overlapping with P4. Figure 4 shows the combined results for 21 speakers in P5.

P5 (21 speakers)	%	FS	Tot
pudì (abil, req) 'can, could'	1%	1	70
penhà 'think'	3%	2	73
piadì 'please, like'	16%	13	80
dervìh 'open (intrans)'	34%	24	71
cugnohì 'be-acq-with'	39%	29	74
gnì-ho 'grow'	46%	35	76
fà 'do'	60%	39	65
fare (caus) anim 'cause, make'	60%	44	73
dà 'give'	61%	43	71
hercà 'search'	62%	46	74
hcrìer 'write'	62%	43	69
htà (a cà) 'live'	64%	48	75
rüà 'arrive'	64%	49	76
mitì 'put'	66%	49	74
troà 'find'	67%	48	72
mangià, maià 'eat'	73%	56	77
vinhì 'win'	78%	58	74
dervì 'open (trans)'	80%	59	74
lidì (trans) 'read'	82%	62	76
cumprà 'buy'	82%	62	76
laà-do 'wash'	84%	64	76

Figure 4: FS use by verb/subject for P5

Dataset: P5, 4 Qs/verb, 2nd ps for verbs with human subjects, 21 speakers, speakers with FS use with non-stative verbs 30-90%, effector-subject verbs >35% and stative verbs < 55%. (Note: 3 speakers have a ‘half’ dataset.)

Speakers are from the communities of: Esine, Malegno, Cividate, Mezzarro di Breno, Astrio di Breno, Breno, Bienno (central MV); Losine, Cerveno, Ono San Pietro (north of Breno, south of Sellero); Berzo, Sellero, Grevo (upper MV); and Paisco (Val Allione).

Results from two questions, one from *fà* ‘do’ and one from *hcrìer* ‘write’, have been removed as speakers found them odd and did not produce the question using the required supported verb.

The same features of the pattern seen for P3 and P4 are evident. T-tests show that the separation of (green) experiencer-subject from (blue) theme-subject verbs is statistically significant ($p > 0.05$). However, although distinct, the separation of all (blue) theme-subject from (red) effector-subject verbs is slightly outside the 5% confidence level ($p = 0.06$).

The top (green) block of experiencer-subject verbs is represented by 4 verbs, with one in the P5 selection not present in P3 or P4, *cugnohì* 'be-acquainted-with'. Intercalated with the bottom of this (green) block is one verb from the (blue), theme-subject block, the anticausative *dervì-h* 'open (intrans)', also a verb not analysed previously. The relative patterning of this verb with its (dark purple) causative counterpart *dervì* 'open (trans)', mirrors the patterning seen in P4 of *rumpì-h* 'break (intrans)' versus *rumpì* 'break (trans). Another (blue) theme-subject verb *gnì-ho* '(lit.) come up, grow' not used previously is immediately beneath the (green) experiencer-subject verbs. This mirrors the position of *gnì-do* 'lit. come down, fall' in the P4 results (see Figure 3 above).

Otherwise, the (blue) theme-subject verbs chosen for P5 are more fragmented than in P4. The archetypal achievement verb, *rüà* 'arrive' is located quite a bit below the top of the theme-subject section, perhaps because the speaker senses that 'arriving' describes a situation necessarily involving a motion activity under the control of the subject, even if that is not what it directly lexicalises.

The (blue) posture verb *htà* 'stay' in the phrase *htà a ca* '(lit.) stay at home, live' (for 3 of 4 questions), interpreted as a temporary state and coloured blue as with the theme-subject verbs, is next to 'arrive' in the sequence. This also uses more FS than would be expected if having a non-effector, non-experiencer, therefore theme subject were the only determinant. It seems that for some speakers, it should perhaps be considered an effector-subject verb, making 'living' an activity.

Turning to the (red) effector-subject verbs, there are several features to note due to the inclusion of types of verbs in P5 not present in P3 and P4. First of all, main verb *fà* 'do' with an action nominal complement ('do: the shopping/a walk/homework/a bike ride') is at the top. This is an indication that, in this selection of speakers, *fa* 'do' as a support verb has not yet grammaticalised to the point where it has a meaning different from the main verb equivalent, so speakers often consider it unnecessary to repeat the verb. (This criterion has been used by other authors to indicate the degree of grammaticalisation of a support verb, e.g. Heine 1993:48-60). Secondly, there is no apparent difference between verbs that most clearly lexicalise the manner of the activity 'wash', 'read', 'write', and 'eat', and those that lexicalise the result, 'buy', 'win', 'put', and 'find'. Both types of verbs have an effector subject that is perceived as the 'do'-er of an activity.

5. Conclusions: Determinants of *FA* 'do'-support in Camuno

The relative use of FS is determined by the subject thematic role, in this order:

experiencer < theme < human-causer-but-not-effector < effector / human-causer-and-effector

The major determinant used by the speaker when choosing to use FS is the degree to which the supported verb resembles *fa* 'do' SEMANTICALLY. Hence the two relevant criteria are the degree to which: a) the supported verb directly describes activity; and b) its subject could be regarded as an effector, or the 'do'-er of that activity. A verb such as 'eat' exemplifies both of these, as it is an activity, with an effector subject.[29]

An additional consideration is how well the verb conjures up activity PRAGMATICALLY. A verb such as 'arrive', which has a theme subject but usually involves human-controlled motion, may therefore in some contexts have a reasonable probability of being used with *fa* 'do'.

The higher probability of FS with causative verbs such as 'break (trans)' or 'open (trans)' than with their non-causative/anticausative counterparts, is undoubtedly a function of there being an effector subject in the former but not the latter.

Among the causative verbs, there is greater use of FS with 'break (trans)' and 'open (trans)' than with 'give' and 'make'. Pragmatically, this makes sense in that the former have a strong connection to activity and the causer would also be an effector; with the latter, there is no direct reference to activity and the causer is not really an effector.

The introduction to this paper referred briefly to the 'special' social and linguistic meanings of the FS question which are described more in other works (Xxx 2021:Chapter 5; Xxx in revision a,b). FS is the form used with a community 'insider' to signal politeness and respect and to engage them in conversation. With it the speaker is making an informed guess as to how the addressee will answer the question based on a shared community understanding. In contrast, SCI is used with a community 'outsider', as the relative abruptness of the form would not risk damaging a relationship. (For the same reason, SCI is also preferred with a close relative.) Because of the different social uses, FS is appropriate in a dialect which is in the contact zone with other non-valley dialects and where speakers often encounter strangers. The two forms, FS and SCI have been thus maintained in equilibrium at a low stage of grammaticalisation.

In contrast, in more isolated locations where there were historically few 'outsiders', there was a tendency for grammaticalisation. As FS took hold in the dialect and its frequency increased, the natural progression was for its use to expand. It expanded first to theme-subject verbs, with which it was pragmatically even if not semantically compatible, and eventually to experiencer-subject, stative verbs. At that point, it could scarcely be

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[29] A comparison of the supported verb semantics to their lexical decomposition using the RRG system was mentioned in a footnote above. The RRG lexical decomposition system includes a **do'** activity component in the breakdown for effector-subject activity verbs, and therefore successfully reflects the fundamental determinant of use of FS. The decomposition however fails to predict the verbs that use FS due to a pragmatic association to activity. Furthermore, as the simpler form of the breakdown (Van Valin 2005:Chapter 2) uses a **do'** component for all causative verbs, it does not distinguish those where there is a strong connection to activity, and others where it is weaker. Lastly, an idiomatic meaning associated with the entire construction cannot be part of the semantic breakdown. In Xxx (forthcoming; in revision a), it is claimed that the 'do' component gives rise to an emphatic meaning to the construction (needed to counteract a presupposition), and that this emphasis is present regardless of the semantic type of supported verb.

considered an example of 'do' at all, but just an empty shell, or relict. With no alternative form of SCI available, FS took over the basic question function, and its meaning was no longer 'special'. With only one form left, the interrogative of all tenses then had an analogous structure making the language easier to understand and acquire.

In Camuno dialects, the scenario described above could have provided sufficient motivation for almost complete adoption of *fa* 'do'-support (except with 'be' and 'have') and loss of the alternative form. Although we cannot be sure that the same is true for English *do*-support, it is a plausible, likely, and sufficient mechanism. It could explain both how DS first entered the language and what drove the grammaticalisation process to its current stage.

REFERENCES

BENINCÀ, PAOLA.; and CECILIA POLETTO. 2004. A Case of do-support in Romance. *Natural Language & Linguistic Theory* 22. 51–94. http://www.jstor.org/stable/4048075.

BENTLEY, Delia. 2006. *Split Intransitivity in Italian*. Berlin: De Gruyter.

BUTT, MIRIAM & LAHIRI, ADITI, 2013. Diachronic pertinaticy of light verbs. *Lingua* 10. 7-29.

BYBEE, JOAN L.; REVERE D PERKINS.; and WILLIAM PAGLIUCA. 1994. *The evolution of grammar: tense, aspect, and modality in the languages of the world*. Chicago: University of Chicago Press.

CASALICCHIO, JAN and ELENA PERNA. 2012. La costruzione tian (tun) + infinito nel dialetto tedesco di Merano. *Quaderni di lavoro dell'ASIt* 14.29–50.

CHOMSKY, NOAM. 1957. *Syntactic Structures*. Berlin: De Gruyter Mouton.

CHOMSKY, NOAM. 1995. *The Minimalist Program.* Cambridge, MA: MIT Press

CINQUE, GUGLIELMO. 1999. *Adverbs and functional heads: a cross-linguistic perspective*. Oxford studies in comparative syntax. New York: Oxford University Press.

CINQUE, GUGLIELMO. 2006a. "Restructuring" and functional structure. *Restructuring and Functional Heads : The Cartography of Syntactic Structures, Volume 4*, ed. by Guglielmo Cinque and Sarah Britto, 11–64. Cary, U.S.: Oxford University Press, Incorporated. http://ebookcentral.proquest.com/lib/oxford/detail.action?docID=272608.

CINQUE, GUGLIELMO. 2006b. The interaction of passive, causative and "restructuring" in Romance. *Restructuring and Functional Heads : The Cartography of Syntactic Structures, Volume 4*, ed. by Guglielmo Cinque and Sarah Britto, 65–80. Cary, U.S.: Oxford University Press, Incorporated. http://ebookcentral.proquest.com/lib/oxford/detail.action?docID=272608.

CINQUE, GUGLIELMO. 2006c. "Restructuring" and the order of aspectual and root modal heads. *Restructuring and Functional Heads : The Cartography of Syntactic Structures, Volume 4*, ed. by Guglielmo Cinque and Sarah Britto, 81–98. Cary, U.S.: Oxford

University Press, Incorporated. http://ebookcentral.proquest.com/lib/oxford/detail.action?docID=272608.

ELLEGÅRD, ALVAR. 1953. *The auxiliary do: The establishment and regulation of its use in English*. Stockholm: Almqvist & Wiksell.

FLEISCHMAN, SUZANNE. 1982. *The future in thought and language: diachronic evidence from Romance*. Cambridge studies in linguistics. 36. Cambridge: Cambridge University Press.

HAEBERLI, ERIC.; and TABEA IHSANE. 2016. Revisiting the loss of verb movement in the history of English. *Natural Language & Linguistic Theory* 34.497–542.

HEINE, BERND. 1993. *Auxiliaries: cognitive forces and grammaticalization*. New York: Oxford University Press.

HOPPER, PAUL J.; and ELIZABETH CLOSS TRAUGOTT. 2003. *Grammaticalization*. 2nd ed. Cambridge textbooks in linguistics. Cambridge: Cambridge University Press.

HOUSER, MICHAEL. 2010. The Syntax and Semantics of Do So Anaphora. University of California at Berkeley doctoral dissertation.

JÄGER, ANDREAS. 2006. *Typology of periphrastic "do"-constructions*. Bochum: Brockmeyer.

JONES, MEGAN.; and SALI TAGLIAMONTE. 2004. From Somerset to Samaná: Preverbal did in the voyage of English. *Language variation and change* 16.93–126.

MAIENBORN, CLAUDIA. 2003. Die logische Form von Kopula-Sätzen. Studia grammatica. 56. Berlin.

MANZINI, MARIA RITA.; and LEONARDO MARIA SAVOIA. 2005. *I dialetti italiani e romanci : morfosintassi generativa. Vol. 1*. Alessandria: Edizioni dell'Orso.

MUNARO, NICOLA. 1999. *Sintagmi interrogativi nei dialetti italiani settentrionali*. RGG Monografie. Padova: Unipress.

PELO, ADRIANA & ILDE CONSALES 2003 Fare "vicario", "fare+ N", "fare+ V". Per un'analisi del verbo *fare* nell'italiano antico. *Verbo italiano: studi diacronici, sincronici, contrastivi, didattici: atti del 35. Congresso internazionale di studi, Parigi, 20-22 settembre 2001*. (Pubblicazioni della Società di linguistica italiana). Bulzoni.

POLLOCK, J.-Y. (1989). Verb Movement, Universal Grammar, and the Structure of IP. *Linguistic Inquiry, 20(3), 365–424.* https://doi.org/10.2307/4178634.

RAPPAPORT HOVAV, MALKA.; and BETH LEVIN. 1998. Building verb meanings. *The Projection of arguments : lexical compositional factors*, ed. by Miriam Butt and Wilhelm Geuder. CSLI lecture notes. Stanford, Calif.: CSLI Publications.

RAPPAPORT HOVAV, MALKA.; and BETH LEVIN. 2010. Reflections on manner/result complementarity. *Lexical Semantics, Syntax, and Event Structure*, ed. by Malka Rappaport Hovav, Edit Doron, and Ivy Sichel, 21–38. Oxford: Oxford University Press.

doi:10.1093/acprof:oso/9780199544325.001.0001. https://www.oxfordscholarship.com/10.1093/acprof:oso/9780199544325.001.0001/acprof-9780199544325.

ROSS, JOHN ROBERT. 1972. Act. *Semantics of natural language*, ed. by Donald Davidson and Gilbert Harman, 70–126. Synthese library. Dordrecht: Reidel.

ROTHMAYR, ANTONIA. 2009. *The structure of stative verbs*. Linguistik aktuell. Amsterdam: John Benjamins Pub.

SCHÖNENBERGER, MANUELA.; and ZVI PENNER. 1995. Cross-dialectal variation in Swiss German: Doubling verbs, verb-projection raising, barrierhood, and LF movement. *Studies in comparative Germanic syntax*, ed. by Hubert Haider, Susan Olsen, and Sten Vikner. Studies in natural language and linguistic theory. Dordrecht: Kluwer Academic.

SCHWARZ, CHRISTIAN. 2004. Die tun – Periphrase im Deutschen.1–171.

SORACE, ANTONELLA. 2000. Gradients in Auxiliary Selection with Intransitive Verbs. *Language*. 76. 859-890. https://doi.org/10.2307/417202

VAN DER AUWERA, JOHAN. 1999. Periphrastic "do": typological prolegomena. *Thinking English grammar: to honour Xavier Dekeyser, professor emeritus*, 457–470. Leuven: Peeters.

VAN VALIN, ROBERT D. 2005. *Exploring the syntax–semantics interface*. Cambridge. doi:10.1017/CBO9780511610578.

WARNER, ANTHONY. 2004. What drove DO? *New perspectives on English historical linguistics. Vol. 1, Syntax and morphology : selected papers from 12 ICEHL, Glasgow, 21-26 August 2002*, ed. by Christian J. Kay and et al. Amsterdam studies in the theory and history of linguistic science. Series IV, Current issues in linguistic theory ; v. 252. Amsterdam ; Philadelphia.

WIERZBICKA, ANNA. 1994. Semantic primitive across languages: a critical review. *Semantic and lexical universals - theory and empirical findings*, ed. by Cliff Goddard and Anna Wierzbicka, 445–500. Amsterdam: John Benjamins.

XXXX, YYYY. 2021. The grammaticalization of 'do'-support in the Camuno dialect. xxxx thesis.

XXX, YYYY. forthcoming. The grammaticalization and grammatical meaning of a 'do'support verb in the northern Italian Camuno dialect. (accepted for publication in *Probus*)

XXX, YYYY. In revision a. Semantic meanings of Camuno interrogatives with a lexically rich 'do'-support verb and their interpretation as embedded questions.

XXX, YYYY. In revision b. Pragmatic and social meanings of Camuno interrogatives with a lexically rich 'do'-support verb.