Grammaticalization and the Root & Category Theory
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Even though grammaticalization is one of the most well-studied topics in descriptive/traditional linguistics, it has received relatively little attention in generative grammar (cf. Roberts & Rousseau 2003, van Gelderen 2012). This paper offers a formal analysis of grammaticalization and language change in the framework of generative grammar, focusing on change involving speech verbs, which is robustly attested cross-linguistically (e.g. Lord 1976). E.g. in (1), *kong* in Taiwanese is originally a speech verb (1a), but it can now also be used as a complementizer (1b). I also discuss relevant multifunctional items (which can function as e.g. speech verbs, complementizers, quote introducers, evidential markers), relating them to the language change in (1).

(1) a. Ahui **kong** Asin m lai   b. Ahui siong **kong** Asin m lai
      Ahui say Asin Neg come   Ahui think KONG Asin Neg come
      'Ahui said Asin is not coming.'   'Ahui thought that Asin was not coming.'

***say* to C.** Descriptively, (1) is a case where a speech verb has become a complementizer keeping its phonological shape the same. To capture this, I assume that speech verbs, in fact verbs in general, consist of (at least) two components; an acategorial component which encodes its semantic and phonological information, and a verbalizer component (the root-&-category theory, e.g. Halle & Marantz 1993, Pesetsky 1995, Marantz 1997 a.o.). Under the root-&-category theory, speech verbs have the structure in (2a). In (2a), the category neutral speech root takes its complement (see Harley 2014 for discussion), and it is merged with the verbalizer *v*. It obtains its lexical categorial status due to the *v*.

(2) a. [(Subj) [[CP/quotation] √SPEECH] *v*]   b. [[CP/quotation] √SPEECH]

I suggest that the grammaticalization from speech verbs to complementizers involves detachment (or loss) of the verbalizer component, as in (2b). What is left in (2b) is the acategorial element (√SPEECH); it has the phonological and semantic information of "speech", but does not have a lexical categorial status due to the absence of a category-defining head. I suggest that this acategorial element is reanalyzed as a functional item, in order to be legible to the system of the grammar; roots cannot appear (cannot be pronounced or interpreted) without being categorized by merging syntactically with category-defining heads (e.g. Embick & Marantz 2008). Also, since √SPEECH is located immediately above C (or a sister to CP), it gets reanalyzed as an item in the C-domain, such as a complementizer or an evidential marker (see below).

Full verbal structure: (2a). Apart from unmarked speech verbs, I suggest that *toiu* in Japanese, which is typically treated as a complementizer, is actually the case of (2a), which, as we will see below, facilitates the change to (2b). As in (3), *toiu* appears in complex nouns. However, as Saito (2017) shows, it is morphologically complex; it consists of *to* 'C' and *iu* 'say-Pres' (see also Lord 1976). E.g., it is possible to inflect *iu* in *toiu* as if it is a normal speech verb, as in (4). Even if (3) involves a true speech verb, we can still capture the interpretation; (3) means 'the rumor which says that John will come'. As we see later, some items are both in this stage and the stage (2b).

(3) John-ga ku-ru toiu uwasa   (4) John-ga ku-ru toitta uwasa
      John-Nom come-Pres TOIU rumor   John-Nom come-Pres -Past rumor
      'the rumor that John will come'   'the rumor that John will come'

Detachment of *v*: (2b). In (2b), the verbalizer is detached from √SPEECH and the root loses its lexical categorial status. Still, √SPEECH introduces a direct and/or indirect quotation as an item encoding information about speech, just like speech verbs do, because speech verbs also involve √SPEECH. I suggest that the structure in (2b) is responsible for the semantic bleaching of speech verbs. Klamer (2000) suggests that grammaticalization of speech verbs to complementizers involves loss of the argument structure of speech verbs (specifically, loss of an external argument). In (2b), assuming that *v* introduces an agent (cf. Chomsky 1995, Harley 1995), the agent of the speech (= the external argument introduced by *v*) is absent in (2b). The items which are originally speech verbs are semantically bleached in that they do not require agentive arguments. Hence, (2b) can be seen as an implementation of Klamer's idea under the root-&-category theory. I further suggest that the structure in (2b) differs from true speech verbs in that it loses an event interpretation due to the absence of *v*, assuming that *v* encodes eventivity (e.g. Embick 2004), i.e., (2b) does not require an actual speech event in the interpretation. This is another type of semantic bleaching. I suggest that an instance of (2b) is *kua* in Tukang Besi. *Kua* is a complementizer derived from a speech verb, but its predicative use is obsolete now (Klamer 2000). I also suggest that *tte* in Japanese is in this stage. *Tte* has developed from *toiu* (see above) via phonological contraction (see Lord 1976), but *tte* and *toiu* are syntactically different. E.g. *tte* can co-occur with another speech predicate as C, while *toiu* cannot (5). *Tte* works as C so that it can co-occur with another speech predicate while *toiu* has a full verbal structure as argued above, so it cannot appear in the C-position.

(5) John-ga Mary-ni [sukida]-{*toiu/tte} itta
      John-Nom Mary-Dat like-TOIU/TTE   said
      'John said to Mary that he likes her.'

It is also widely attested that evidential particles have developed from the combination of the verb 'say' and C, e.g. *dizque* in (some American) Spanish, *dicica* in Sicilian, *nachi* in Sardinian (Kany 1994, Cruschina & Remberger 2008). I argue that these particles have developed from (2a) to (2b); in this case, the combination of C and √SPEECH is reanalyzed as one item. Even though they look morphologically complex (i.e. *say*+C), they behave as single functional particles, e.g. phonological reduction, impossibility of inflection, semantic bleaching (Cruschina & Remberger 2008). Despite their functionalized status, they still encode the information of speech due to √SPEECH, which, together with C, has been reanalyzed as a functional item; this is why they mark evidentiality. An interesting case is *kong* in Taiwanese (1) and *fen(e)* in Buru (Simpson & Wu 2002, Klamer 2000); these items can be used as speech verbs as well as C co-occurring with other speech/thought predicates; I suggest that they are now in the stage in (2a) and (2b). Furthermore, in some languages, a complementizer that usually appears in embedded clauses can appear in matrix clauses, marking evidentiality. *Que* in Spanish (6) and *da* in Slovenian are examples of this use of C (Stegovec 2015 for Slovenian). I suggest that this case is also an instance of (2b); √SPEECH and C are reanalyzed as a functional item in the C-domain encoding speech, which marks evidentiality.

(6) Que ha dimitido el decano
    that has resigned the dean
    'The dean has resigned (someone said/I just heard).'   (Demonte & Fernández-Soriano 2014)

Note that morphological/phonological forms of (2b) vary depending on the language; some languages spell out both C and √SPEECH (e.g. *tte*, *dizque*), while others spell out only √SPEECH (e.g. Taiwanese *kong* and *fen(e)* in Buru), or only C (e.g. Slovenian *da* and Spanish *que*). I suggest that some of this variation comes from the optionality of C. In Japanese, Slovenian, and Spanish, overt C is obligatory in embedded clauses, while C is optional in Taiwanese. This is why C needs to be spelled out somehow (as a contracted or full form) in the former group of languages. In Taiwanese, C can be null and only the root gets spelled out.

√SPEECH + non-*v* categorizer. In (2a), we assume that √SPEECH is merged with *v*. Here, once we assume that speech verbs have a complex structure, the root plus the verbalizer, there are other logical possibilities regarding what √SPEECH can be merged with. That is, we may expect to find cases where √SPEECH is combined with non-verbal categorizers, such as *a* and *n*, as in (7).

(7)   [$_{aP, nP, (pP)}$ [[CP/quotation] √SPEECH] *a, n, (p)*]

What we would observe in such cases then is a non-verbal lexical element that introduces indirect and/or direct quotation. I argue that this indeed happens; non-verbal quotative items are cross-linguistically attested. I suggest that the morpheme *teki* 'like' in Japanese is an instance of (7). *Teki* usually takes a nominal complement to form an adjective (8a/b), but in its innovative use, it can take an (in)direct quote as its complement (8c). Saito (2017) argues that clause-taking *teki* has the structure in (9) (the combination of C, √SPEECH, and *a* is spelled out as *teki*), which is exactly the same as (7). This is the case where *a* is merged with √SPEECH (see Saito 2017 for evidence for the presence of √SPEECH in this use of *teki*).

(8) a. seizi   b. seizi-teki   c. **[watasi-ga itiban kawaii]-teki**-na   taido
    politics   politics-TEKI   I-Nom   most cute-TEKI-Cop   attitude
    'politics'   'political'   'an attitude like, "I'm the cutest."'

(9)   [$_{aP}$ [[$_{CP ...}$ C] √SPEECH] *a*]

In fact, *teki*-phrase (boldfaced in (8c)) behaves as an AP. E.g., intensification and comparatives of the degree of similarity expressed by *teki* are possible (Saito 2017) Also, morphologically, *teki*-phrase shows the same conjugation pattern as adjectives (i.e., nominal adjectives, see Nishiyama 1999).

    I further suggest that it is possible to merge *n* with √SPEECH. The attachment of *n* is attested in Italian. Italian *tipo* 'type' is usually an unmarked noun (10a), but in informal register, it can now be used as a quote introducer, as in (10b).

(10) a. il **tipo** di riso   b. Ho detto **tipo** "Scordatelo!"
     the TIPO of rice   I told TIPO forget.it
     'the type of rice'   'I told you, "Forget it!"'

I argue that the use in (10b) is an instance of (7), where *n* is attached to √SPEECH. Even though *tipo* is (originally) a noun, it can introduce a quote due to √SPEECH.

    What about *p*? Even though it is controversial whether *p* exists (cf. Svenonius 2010, Baker 2003), I suggest that *van* in Dutch is the case of (7) where √SPEECH merges with *p*. *Van* 'of' is originally a preposition (11a), but it has a "quotative" use (11b) (Coppen & Foolen 2012, Haddican & Zweig 2012).

(11) a. Dat boek is **van** mij   b. Hij zei zoiets   **van** "laat me gerust"
     that book is VAN me   he said such.something VAN leave me alone
     'That book is mine.'   'He said something like, "Leave me alone."'

Consequences. This paper enables us to relate multifunctional items (as e.g. C, quote introducers, speech verbs, evidential markers) to well-attested language change patterns. In the literature, it has been assumed that grammaticalization involving speech verbs is limited to languages with serial verb constructions (e.g. Klamer 2000, Roberts & Rousseau 2003). However, this paper shows that the distribution of this type of change is much wider than the availability of serial verb constructions, in line with Lord (1976). In fact, the proposed analysis does not rely on any property of serial verb constructions; the relevant change results

from detachment of categorizers. The paper provides a new way to investigate quotative constructions and relevant multifunctional items within a bigger picture, i.e. language change involving speech roots.