Chapter 2: Upward Complementizer Agreement

1. Introduction

As discussed in Chapter 1, upward complementizer agreement is a construction in which the C head of an embedded clause (usually a complement clause) agrees in person, number, and noun class with an argument of the verb that selects the clause. In point of fact, the agreed-with argument is almost always the superordinate subject. This upward C-agreement needs to be distinguished from the downward C-agreement found in some Continental West Germanic languages, in which the C head agrees with the subject of its TP complement. This latter type of C-agreement shows every sign of being an instance of direct Agree, not involving the licensing and control of a ghostly DP operator in the CP periphery, which is the focus of this study. Upward C-agreement is found in a range of languages in sub-Saharan Africa. The best studied case is Lubukusu (Diercks 2013); others include Kinande, Ikalanga, Chokwe, and Ibibio. Reports of this phenomenon in languages from outside this region are very sporadic. The one reasonably well-documented case is the Teiwa language of Indonesia (Sauerland, Hollebrandse et al. 2020). Other possible candidates are the New Guinean language Arapesh (Baker 2008: 182-183) and the Peruvian language Nanti (Michael 2008: 111-112). Sauerland et al.'s characterization of Teiwa is, I believe, compatible with my analysis of the African languages offered here. But while they show that the construction is a true instance of CP complementation (not a paratactic construction involving the verb 'say'), they do not give enough detail about other facets of the construction to warrant a separate discussion. Therefore, I focus entirely on the African languages, while acknowledging that it would be very desirable to replicate the findings in (say) an Indonesian or New Guinean language at some point.

Some initial examples of upward C-agreement are given in (1) from Kinande, a Bantu language spoken in the Eastern Congo. (1a) versus (1b) shows that C agrees with subject—not with the object, which seems closer to C both structurally and linearly. (1c) shows that full

person agreement is possible with a first (or second) person subject. (1d) shows that C-agreement is possible even with nonanimate noun classes as long as the subject can be understood as something that communicates propositional information, like a letter. C-agreement is also possible with animal-denoting subjects in folktale contexts.

(1) Kinande (fieldwork, Philip Mutaka)

    a. ***Kámbale*** *mw-a-kabw-ir-a abá-kalí **a-ti** Maryá mw-á-gúl-ir-é ehí-lole.*
    CL1.Kambale AFF-CL1.TNS-told-APPL-FV CL2-women CL1-that CL1.Mary AFF-CL1.TNS-buy-ASP-FV CL19-bananas
    "Kambale told the women that Mary bought bananas."

    b. ***Aba-kali*** *mo-ba-kabw-ir-a Kambale **ba-ti** Maryá mw-á-gúl-ir-é ehí-lole.*
    CL2-women AFF-CL2.TNS-told-APPL-FV CL1.Kambale CL2-that CL1.Mary AFF-CL1.TNS-buy-ASP-FV CL19-bananas
    "The women told Kambale that Mary bought bananas."

    c. ***Nyi****-lir-ira Kambale* ***nyi-ti*** *a-mbaly' emaske.*
    1SG.S-cry-APPL CL1.Kambale 1SG-C CL1.S-wear mask
    "I begged Kambale that he wear a mask."

    d. *Ebaruha y-a Kambale yi-ka-buga yi-ti/??a-ti a-kisig' ini-a-sa.*
    CL9.letter CL9-ASS CL1.Kambale CL9.S-TNS-say CL9-C/??CL1-C CL1.S-AUX ??-CL1.S-come
    "Kambale's letter says that he will come soon."

Upward C-agreement in Ibibio is similar, as seen in (2). In this language too the C-like head has the signature property of agreeing with the matrix subject but not the matrix object (see also Diercks 2013: 357 (1) for Lubukusu).

(2) Ibibio (fieldwork, Willie Willie; see also Torrence 2016).

    *Nditǫ e-ma-e-toiyo Okon (e-bo/*a-bo) ke Emem a-kpena a-dep adesi.*
    children 3PL-PST-3PL-remind Okon 3PL-C/*3SG-C that Emem 3SG-should 3SG-buy rice
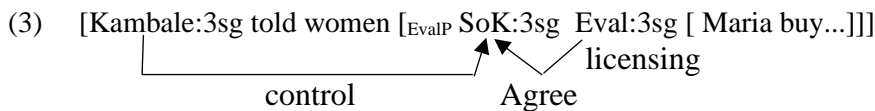   "The children reminded Okon that Emem should buy rice."

Ibibio is somewhat different from Kinande and Lubukusu in the structure of its complementizer space. Kinande and Lubukusu

embedded clauses generally have one complementizer each; this may be the agreeing complementizer or some other C head. In contrast, the agreeing C in Ibibio is always optional, and when it appears it is in addition to rather than instead of another C head, such as declarative *ke* in (2). Thus, the upward C-agreement construction in Ibibio involves sequences of at least two complementizers, whereas in Kinande and Lubukusu it does not. Interestingly, however, this difference in the structure of the C-space across these Niger-Congo languages has relatively little impact on the syntax of C-agreement.

A basic analytic question raised by (1) and (2) is what is the proximal goal of the agreeing C. Does C agree with the matrix subject directly (Carstens 2016, Letsholo and Safir 2019, Diercks, Koppen et al. 2020), or does it agree with the matrix subject indirectly, by agreeing with some null DP near C which is bound by the matrix subject (Baker 2008, Diercks 2013)? Both views present some theoretical challenges. On the one hand, the matrix subject could be too far away for the embedded C to agree with it directly, both in terms of phase boundaries and in that the direct object intervenes between C and the subject. Thus, some kind of covert movement may be required to feed the agreement, whether raising the entire CP (Carstens 2016) or only its C head (Diercks et al. 2020) to the vicinity of the matrix Voice. On the other hand, the indirect agreement view needs to answer questions about what is the null DP near C, and what is the grammatical relationship between the matrix subject and this DP—questions that Diercks (2013) struggled with and Baker (2008) did not get to.

In this work, I argue for a version of the indirect agreement approach. In particular, upward C-agreement in the African languages is a specific realization of the structural template outlined in Chapter 1, where a C-like head licenses a null pronominal DP in its specifier, and this "ghostly" DP is obligatorily controlled by the subject of the superordinate clause. The ghostly DP then inherits phi-features from its controller, and C picks up these phi-features by an instance of very local agreement. More specifically, I argue that the head in the C-space in this particular construction is the Eval head of Speas and Tenny (2003), and the null DP is what they call the "Seat of Knowledge"—SoK for short. The slightly more refined structure for an example like (1a) is thus (3) (compare (25) from Chapter 1).

(3)   [Kambale:3sg told women [_EvalP SoK:3sg Eval:3sg [Maria buy...]]]

                              control   Agree   licensing

This analysis is developed in the following stages. §2.2 concentrates on the claim that the ghostly DP is present and can be identified as SoK, licensed by Eval via a kind of thematic role assignment. In particular, I argue that this SoK is semantically detectable, in that examples with upward C-agreement have a slightly different meaning than examples without it. §2.3 turns to the control relationship between the matrix subject and SoK. I argue that the construction obeys a version of Landau's (2013) "Obligatory Control Signature", such that if CP (including EvalP) is generated inside the VP headed by verb X, then the null pronoun near the edge of CP must be controlled by an argument of X. Which argument of X is the controller of SoK near the edge of CP is thematically determined: it must be the argument of X whose thematic role best matches the thematic role that SoK gets from Eval—typically the thematic subject. §2.3 also shows that upward C-agreement is subject to a second condition, not familiar from control theory: the controller of SoK must itself trigger agreement on T in the matrix clause. I call this the *T/Agree Condition*. §2.4 considers the possibility that there is double upward C-agreement in at least one African language, Kipsigis, such that C in a complement clause can agree with the object of the matrix clause as well as with the subject of the matrix clause (Diercks and Rao 2019). This may show that C/Eval can theta-mark a second ghostly DP, tentatively called OoK (object of knowledge). Finally, §2.5 turns to the Agree relationship in (3). For the most part, this is straightforward from a theoretical point of view, since SoK is (by hypothesis) very close to the probe Eval. (Indeed, since it is null, it is hard to tell exactly where it is, leaving us relatively free to assume that it is wherever it needs to satisfy whatever conditions we think hold of Agree.) However, I argue that we can use aspects of the theory of Agree to explain why these constructions are subject to the T/Agree Condition, discovered in §2.3. In particular, I show how this constraint can be derived from a particular interpretation of Arregi and Nevins's (2012) proposal that Agree can be factored into two distinct suboperations, Agree-Link and Agree-Copy. I claim that this understanding of Agree not only works for upward C-agreement, but for other instances of "dependent agreement" such as agreement on infinitives in Hindi and agreement on participles in Icelandic.

A final introductory remark concerns the category of agreeing heads like *ti* in Kinande and *bo* or *te* in Ibibio. I am assuming that these are C-like heads—some functional head in the high periphery of a full finite clause (and more specifically Eval). However, there is debate about this. All of these elements are cognate with verbs that mean 'say' in the relevant languages. Travis Major and his collaborators have in recent years had an active research program arguing that 'say'-complementizers in various languages are synchronically participial or converb forms of the verb 'say', and not C heads after all. Major (2021) originally argued this for the verbal complementizer in the Turkic language Uyghur, and has extended the claim to Lubukusu (Major, Diercks et al. 2023)), among others; see also Driemel and Kouneli (in press) for the same claim about Kipsigis. My primary strategy for approaching this controversy is not to worry about it too much. For Ibibio, I have investigated the matter directly to the extent of my ability, constructing six arguments that *bo* and *te* are C-like heads; in particular, I argue that (2) is not an instance of a serial verb construction (SVC) in Ibibio ('remind'+'say'), despite some initial attraction of that hypothesis. These arguments are presented briefly in the appendix to this chapter. For other languages like Kinande and Lubukusu, I lean toward the idea that *ti* and *li* are C-like functional heads since they are like functional heads in having no encyclopedic meaning and in having unique complement-taking properties (e.g. they are the only elements that select a finite TP/CP complement, according to this class of proposals). However, I do not have to be dogmatic about this. Suppose it is true that what I call Eval in (3) turns out to be a verb in some of the languages, or even all of them. The essential syntactic relationships that I am interested in still hold. In particular, the V licenses a null DP subject, that DP is controlled (I claim) by a DP in the matrix clause, and it is agreed with. In short, all the component syntactic relationships that underlie this rare construction are present regardless of what the label of this word is. I am inclined to say that *ti* is a C head, but it is an especially verb-like C head, in that it crucially licenses a subject argument. In contrast, Major and company may be inclined to say that *ti* is a verb, but it is an especially C-like verb in that it has little meaning and it uniquely selects a TP complement. There is a difference here, but it is a small one and one that I do not see much need to debate at length, given my current theoretical interests. I talk in terms of C-like heads throughout, but the reader is welcome to reinterpret this.

2. The presence of a ghostly DP

2.1. Kinande evidence

I begin the project of motivating the indirect Agree hypothesis in (3) by considering carefully the fact that examples with C-agreement are semantically different from examples without C-agreement in some systematic ways. This is not expected on a direct Agree approach, given that agreement is taken to be semantically inert, the mere copying of features onto a head whenever the right syntactic conditions hold. In contrast, the indirect Agree approach posits a DP in the specifier of some functional head in the C-space, and we expect such a DP to contribute to the semantics, counting as an argument of the functional head that licenses it. I start with a relatively detailed discussion of Kinande, which presents a clear case and where I have new data to contribute.[1] I then survey more briefly what is known about this in several other African languages, commenting on the ways in which they are similar to or different from Kinande in this respect. I touch on Lubukusu, Ibibio, Ikalanga, Chokwe and its near relatives, and Kipsigis.

In addition to its agreeing complementizer (or verb) *-ti*, Kinande has several other C heads that we can compare to it, including *ko*, *nga*, and *ambu*. Some of these C-like heads can also be stacked, the language allowing at least *ng'oko* (=*ng[a]+o+ko*?) and Agr-*ti ambu*. One straightforward way to see the meaning contributions of these elements is to look at verbs with general meanings, which can appear with a range of these Cs. One such verb is 'think', which can appear in the following range of examples.

(4)   Kinande (fieldwork, Philip Mutaka)
   a. *Kambale a-ka-lengekanaya a-ti a-kandi-hola.*
    CL1.Kambale CL1.S-TNS-think CL1-C CL1.S-FUT-die
   "Kambale thinks that he will die." (his own, possibly irrational, fear)

   b. *Kambale a-ka-lengekanaya a-ti ambu a-kandi-hola.*
    CL1.Kambale CL1.S-TNS-think CL1-C they.say CL1.S-FUT-die

"Kambale thinks that he will die." (the witch doctors told him so)

   c. Kambale   a-ka-lengekanaya ngoko a-kandi-hola.
     CL1.Kambale CL1.S-TNS-think   that   CL1.S-FUT-die
   "Kambale thinks (realizes) that he will die." (it is a generally known fact Kambale is coming to grips with)

With Agr-*ti*, the source of the idea that Kambale will die is Kambale himself; perhaps it is his own irrational fear. The speaker does not necessarily assume that this will happen. In contrast, when *ambu* is included, the source of the idea that Kambale will die is someone else; perhaps he has been told this by the witch doctors, for example. Again, the speaker does not assume that it is true; this version has more of a hearsay sense. Finally, *ng'oko* marks a factive complement: that Kambale will die is assumed to be true in the common ground. (4c) thus has the sense that it is generally acknowledged that Kambale's days are numbered and he is emerging from his denial about that and putting his affairs in order.

Another verb that appears with a relatively wide range of complementizers is *buga* 'to say'. With this verb, we get a similar triple, as shown in (5).

 (5)   Kinande (fieldwork, Philip Mutaka)
        a. Ebaruha y-a Kambale yi-ka-buga yi-ti a-kisig' ini-a-sa.
        CL9.letter CL9-ASS CL1.Kambale CL9.S-TNS-say CL9-C
        CL1.S-AUX ??-CL1.S-come
        "Kambale's letter says that he will come soon."

        b. (#)Ebaruha y-a Kambale yi-ka-bug-a yi-ti ambu a-kisig' ini-a-sa.
        CL9.letter CL9-ASS CL1.Kambale CL9.S-TNS-say CL9-C
        they.say CL1.S-AUX ??-CL1.S-come
        "Kambale's letter says that he will come soon."

        c. Ebaruha y-a Kambale yi-ka-bug-a ngoko a-kisig' ini-a-sa.
        CL9.letter CL9-ASS CL1.Kambale CL9.S-TNS-say that
        CL1.S-AUX ??-CL1.S-come
        "Kambale's letter says that he will come soon."

Here the AGR-*ti* option is the most canonical one, in which the letter

from Kambale is the speaker's original source of the information about Kambale's travel plans, with no implication about the reliability of the information. The version with *ng'oko* in (5c) is more factive; it implies that Kambale is already making preparations to come, and the speaker takes it to be a fact that he will actually do so. Finally, the Agr-*ti ambu* version is grammatical, but it is a funny thing to say; here the letter from Kambale is reporting hearsay information. That is possible, but a rather weird thing to communicate in a letter ("Hey, Mom, have you heard the rumor that I'm coming to visit you next week?"). A third triple of this kind is with *kangirirya* 'teach'. This verb often takes *ngoko*, as people normally teach established facts, but it can occur with Agr-*ti* if the teacher believes the proposition being communicated but it is not a well-known fact, and with Agr-*ti ambu* if the teacher is passing on unestablished hearsay (e.g. the teacher taught the children that elephants live in America). It is clear, then, that the choice of C is semantically meaningful in Kinande. Other verbs that are attested with both *ngoko/ko* and Agr+*ti* are 'believe' and 'dream'.

We can also consider verbs with narrower meanings, in which the meaning of the verb constrains which Cs can appear in its complement. These cooccurrence facts also seem to be systematic. Thus, a (semi)factive verb like 'remember' occurs with *ko/ngo'ko* but not with Agr-*ti*. (Note that *ko* is a proclitic that attaches to the verb, skipping over an overt subject.)

(6)   Kinande (fieldwork, Philip Mutaka)
　　　　a. *Kámbale mw-á-kumbuk-íre Marya **ko**-mw-á-gul-ire e-hi-lóle.*
　　　　CL1.Kambale AFF-CL1.S.TNS-remember-ASP CL1 Mary C-CL1.S.TNS-buy-ASP CL19- bananas
　　　　"Kambale remembered that Mary bought bananas."

　　　　b. **Kámbale mw-á-kumbuk-íre **a-ti** Marya mw-á-gul-ire ehi-lóle.*
　　　　CL1.Kambale AFF-CL1.S.TNS-remember-ASP CL1-C
　　　　CL1.Mary C-CL1.S-buy-ASP CL19-bananas
　　　　("Kambale remembered that Mary bought bananas.")

The grammatical version in (6a) has the C *ko*, and assumes that Kambale's memory is veridical, that Mary did buy bananas. Another form uses the C *ngoko* (and the verb in a different tense-aspect, *mwakakumbuka*). However, the version in (6b) with *Agr-ti* is bad in this case (with either tense form of the verb). Another verb that is attested only with *ko/ngoko* is 'discover', which behaves as a factive

verb in Lubukusu (Ken Safir, p.c.). Factive verbs that express an emotional state of the subject are also attested only with *ngoko* or *ko*.

(7) Kinande (fieldwork, Philip Mutaka)
     a. Kámbalé mw-a-sang-ere **ngoko** *Marya mw-a-gul-ire ehi-lole.*
     CL1.Kambale AFF-CL1.S-be.surprised-ASP that CL1.Mary AFF-CL1.S-buy-ASP CL19-bananas
     "Kambale was surprised that Mary bought bananas."

     b. Kámbalé a-masusumana Marya **kw'**-*a-hola muligolo.*
     CL1.Kambale CL.1.S-be.surprised CL1.Mary C-CL1.S-die yesterday
     "Kambale is sad that Mary died yesterday."

Other verbs that we have attested with *ko* or *ngoko* but not Agr-*ti* are two verbs meaning 'know' (*nasi*, *minya*), 'admit' and 'show'/'persuade' (Aphranaph). In general, then, Agr-C is ruled out with factive complements, where everyone in the context is committed to the content of CP, not just the referent of the matrix subject.

Kinande also has verbs which only allow Agr-*ti*, not *ng'oko* or *ko*. These fall into quite a different lexical-semantic subclass. They are verbs whose subject has a special responsibility for the content of the CP given the intrinsic meaning of the verb. One such verb is 'force', which in Kinande takes a finite CP complement in subjunctive mood. Example (8) shows that this verb is only compatible with the agreeing C, not with factive *ng'oko* or hearsay *ambu*.

(8) Kinande (fieldwork, Philip Mutaka)
     Aba-kali mo-ba-kas-ire Kambale ba-ti/*ng'oko mupaka a-gul-e ehi-lole.
     CL2-women AFF-CL2.S-force-ASP CL1.Kambale CL2-C/*that forcefully CL.1.S-buy-SBJV CL19-bananas
     "The women forced Kambale to buy bananas."

Here, the source of the content 'Kambale buy bananas' is the will of the women. *Ngoko* is not possible, because it is not presupposed in the common ground that Kambale bought bananas, and Agr-*ti ambu* is not possible because 'force' does not readily admit the sense that the women are just passing on content that originated from some other unspecified source. Another similar verb that takes only an Agr-C,

(again with a subjunctive mood complement) is 'want'.

(9) Kinande (fieldwork, Philip Mutaka)
  Kámbére a-sond-ire a-ti (kumbe) i-tw-a-mu-tsakura.
  CL1.Kambere CL1.TNS-want-ASP CL1-C preferably SBJV-
  1PL.S-TNS-CL1.O-vote
  "Kambere wants that we vote for him."

Other verbs that are attested only with Agr-*ti* are *leka* 'let', *saga* 'fear', and *ganirya* 'imagine'. *Andika* 'to write' also spontaneously takes Agr-*ti* (and not really *ambu*), as does 'tell' when it is glossed as 'demand' with a subjunctive complement. I conclude that verbs that mean that the subject is distinctively responsible for the content of the CP complement require Agr-*ti* in Kinande, whereas verbs that imply that the subject is not distinctively responsible for the content of the CP complement forbid Agr-*ti*. This reinforces the data from verbs with flexible meanings, where a shift of meaning goes along with the presence or absence of the agreeing C.

For completeness, I add a bit more about *ambu* in Kinande. This is like a hearsay marker. It is not factive and it gives the sense that the original source of the content of CP is not the matrix subject. It appears by itself in some cases, and in combination with Agr-*ti* in other cases, as in several examples above. It is required, for example, with the verb 'hear' and with the passive of 'tell'. Passive 'tell' appears only with *ambu*, whereas 'hear' allows Agr-C as well.

(10) Kinande (fieldwork, Philip Mutaka)
  a. *Aba-kali mo-ba-kowa (ba-ti) ambu Marya mw-a-gul-ire ehi-lole.*
  CL2-women AFF-CL2.S-hear (CL2-C) they.say CL1.Mary
  AFF-CL1.S-buy-ASP CL19-bananas
  "The women heard that Mary bought bananas."

  b. *Aba-kali ba-bya i-ba-biribwira ambu Marya mw-a-gula ehi-lole.*
  CL2-women CL2-AUX ??-CL2.S-tell.APPL.PASS they.say
  CL1.Mary AFF-CL1.S-buy CL19-bananas
  "The women have been told that Mary bought bananas."

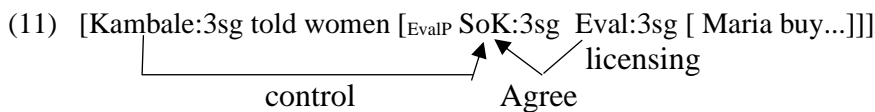(10a) allows for the possibility that the report may not be true. (*Ngoko*

is also possible with 'hear', in which case the CP is a known fact—e.g., 'Has Kambale heard that Mary is in town?' where everyone else is aware that she is.) Similarly, in (10b) it is not an established fact that Mary did actually buy the bananas. I take *ambu* to be another C-like head in the C-space of an expanded left periphery. When it cooccurs with Agr-*ti*, the order is fixed as Agr-*ti ambu*, not *ambu* Agr-*ti*.[2] When Agr-*ti* appears together with *ambu*, the meaning is that the matrix subject—the NP that C agrees with—is an intermediate source of the content of the CP, although not its original source. That is true for examples with 'say' like (5b) above. That also fits the use with 'hear' in (10a), on the natural assumption that the speaker knows that the women heard that Mary bought bananas, and hence that Mary might have bought bananas, because the women told the speaker so.

Putting this all together, it is clear that Agr-*ti* means something—something different from what other Cs in Kinande mean. That is to be expected: different words usually mean different things. But we can go a step farther: Agr-*ti* means that the CP relates in a particular way to the individual that controls the agreement on C. Agr-*ti* says roughly that this individual is distinctively responsible for the content of the CP. As such, it is in paradigmatic contrast with *ko/ngoko*, which is used when everyone involved in the situation shares a commitment to the content, and with *ambu,* which says that some other unnamed people are responsible for the content, not the subject of the matrix sentence (and not the speaker of the whole sentence). Agr-*ti* says that there is a semantic relationship between a particular individual and the CP it heads, like a thematic relationship. Now we should ask: is it a coincidence that the one C that shows agreement with a DP is the very C that expresses a semantic relationship between the content of the clause it heads and an individual named in the larger sentence? Presumably this is not a coincidence.

I draw a connection here between the Kinande facts and an influential proposal of Speas and Tenny (2003). They claim that the left periphery of clauses can have a limited number of covert DPs which

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[2] In the attested cases in which an agreeing C appears along with another C head, the agreeing C is consistently the first/higher one. This is also seen in (2) from Ibibio, and Letsholo & Safir (2019) show that in Ikalanga 'ask' can take Agr-C plus a question particle *á*, in that order. This order might be forced by the Phase Impenatribility Condition, such that only the highest element in the C-space can be influenced by outside material (compare Carstens 2016).

bear what they call p-roles ("pragmatic roles"), conceptually parallel to the familiar θ-roles ("thematic roles"). One of these covert DPs they call the *seat of knowledge* (SoK) argument, which is generated in the Spec EvalP (cf. Cinque 1999) (for evaluative phrase; they also refer to this sometimes as a Sentience Phrase). This EvalP is high in the CP space, although not as high as their SAP (speech act phrase). They describe the meaning of SoK in construction with its proposition-denoting complement as follows: SoK refers to "the sentient 'mind,' who can evaluate, or process or comment on the truth of the proposition." They also argue that the SoK can be controlled by other higher elements in the clause (speaker and hearer) in various ways, to get different effects. This is very similar to what we need for Kinande. *-ti* is the Eval head, taking an EvidP (evidential phrase) complement. It has a SoK argument in Spec of EvalP, which it agrees with locally, say by Spec-Head agreement. This SoK argument is in turn controlled by the matrix subject—the topic of §2.3. My conception of the meaning of SoK is a bit narrower than Speas & Tenny's, such that SoK must be some kind of source of the propositional content of its EvidP complement. But overall, the fit is good considering that this is a language and construction that Speas & Tenny were not aware of (although they discuss some similar phenomena). The representation of a Kinande C-agreement sentence is thus the one repeated in (11).

(11)   [Kambale:3sg told women [$_{EvalP}$ SoK:3sg Eval:3sg [Maria buy...]]]
                                                              licensing
                   control   Agree

In contrast, *ko* and *ngoko* are different C-type heads, which do not have a DP specifier. Meanwhile *ambu* is a plausible head of EvidP, a projection that Speas and Tenny characterize as "hav[ing] to do with the type of evidence available for evaluating the truth of the sentence, for example, personal experience, direct evidence, indirect evidence, **and hearsay**." This fits well with our observation that *ambu* seems to be a C-like head that can appear immediately below the Agreeing C, the head of EvalP.

This Speas & Tenny-style proposal can be contrasted with the direct agreement account of Carstens's (2016). According to her, a very high C head cannot agree downward with the embedded subject in African languages, as happens in West Germanic languages like Flemish, because there is a phase boundary (the FinP?), resulting in "delayed

valuation". This forces C to do something special to find a goal to agree with in the matrix clause. Carstens's specific proposal is that in certain cases (when there is an indirect object present) CP raises to adjoin to VoiceP, and the C head can agree downward with the subject in Spec VoiceP from there. An alternative is Diercks et *al.*'s (2020) proposal that C undergoes covert head movement to VoiceP and agrees with the subject from there. The mechanics of both these versions are arguably a bit strained. But the more basic point raised by this Kinande data is that they overgenerate. As far as I can see, this kind of direct agreement account could be applied to any (high, Force-like) C, with any semantics—to a factive complementizer just as well as to one with the meaning that Agr-C actually has. In this respect, the direct-Agree account is underconstrained. It does not capture the important connection between the fact that C agrees with a particular NP and the fact that that C assigns responsibility for the content of its TP to the referent of the very same NP.[3]

In contrast, my proposal after Speas & Tenny (2003) does capture this relationship in a natural way. True, pure agreement does not have semantic consequences. But whether a DP is present or not in a certain position—here Spec CP/EvalP—certainly does. My proposal is that some CPs do have such a DP present, and Kinande agreement has the

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[3] This point is clear for Carstens's version; see also Diercks et *al.* (2020) for a similar criticism of Carstens. Carsten (2016: 17) says that the Lubukusu speakers she worked with did not get some of Dierck's semantic effects, but her discussion is not extensive, and she does not consider the full range of the phenomenon. (She does not say, for example, if Agr-C is possible with factive psych verbs for her speakers.)

Diercks et al.'s (2020) view is a bit more nuanced. They claim that C moves to adjoin to the matrix VoiceP because C is anaphoric, and that is what (subject-oriented) anaphors do in order to get an antecedent. They further ground the claim that C is an anaphor in the claim that C has interpretable features, which in turn is grounded by the fact that including that particular C has observable semantic effects. In the end, then, they also predict that only Cs with some specific semantics will be Cs that seem to agree upward. Nevertheless, as far as I can see, they still do not make much of a link between agreement and the exact nature of the meaning that C has—only that it has some kind of meaning. I am making a further connection here: the agreeing C has to have the sort of meaning that can license an SoK argument a la Speas & Tenny.

convenient effect of making that visible in the morphosyntax.[4]

A further consequence of this view is that we expect there to be an animacy requirement—really a sentience requirement—on the subject of Agr-*ti*. The NP that C agrees should refer to the kind of thing that is capable of grasping or expressing propositional content. Canonically, that is people, and by extension artifacts that they create for that purpose (e.g., letters). By extension, it can include other beings that we imagine as being similar enough to people in this respect (e.g., animals in folktales). Indeed, Diercks (2013: 400) points out for Lubukusu that, although C can agree with a subject in any noun class in Lubukusu, it cannot agree with just any subject. C can agree with 'letter' and with animal-denoting NPs, but not with an NP like 'marks on the table'. (12) is a Kinande analog of Diercks's example. Mutaka does allow Agr-*ti* even with 'marks on the table', but it involves a degree of pretense, made explicit by including "are as if they were saying" to make the sentence felicitous.

(12) Kinande (fieldwork, Philip Mutaka)
  Emi-haruro y'-oko-mesa yi-ka-by-a nga yi-ka-tu-bw-ir-a yi-ti Kambale a-na-bya hano.
  CL14-marks CL14.ASS-LOC-table CL14.S-TNS-be how CL14-TNS-1PL.O-say-APPL-FV CL14-C CL1.Kambale CL1-PST-be here
  "The marks on the table (are as if they) tell us that Kambale was here."

I take this as a further sign that there is a null DP present that is involved in a quasi-thematic relationship with C (Eval). It is broadly analogous to the familiar fact that the subject of a control verb such as 'want' needs to be a thing with a mind, whereas the subject of a raising verb like 'seem' has no semantic restriction, as in (13).

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[4] Note that on this view one might very well expect some languages to have two (or more) Cs which are semantically different, like -*ti* and *(ngo)ko* in Kinande, but where neither one is an agreement probe. This appears to be the case for the finite Cs *kwamba* and *kuwa* in Swahili, for example (Finholt & Gluckman 2023). I would expect that the factive complementizer should never agree upward, whereas the nonfactive one may or may not agree with its SoK argument, depending on whether Eval is specified as being a probe or not.

(13) English (personal knowledge)
  a. *The marks on the table seem to be deep and recent.*
  b. *#The marks on the table want to be deep and recent.*

2.2. Evidence from other African languages

I have presented the situation in Kinande in some detail, claiming that the agreeing C licenses a null DP by a kind of thematic role assignment that is semantically detectable. Next, I briefly survey what is known about other African languages in this regard. The picture is somewhat nuanced. It is too strong to say that the Eval head has exactly the same meaning and plays the same role in the C-space in every language. However, the agreeing C does come with semantic implications and/or restrictions that are similar in each language. And that is arguably just what one should expect on my view. There is no reason to expect that a functional head in one language should be identical in meaning to an analogous head in another language. At the same time we should expect a functional head and the DP it licenses to mean something. To manage the length and maintain the focus, I give only an overview of the situation in these other languages, along with a few highlight examples.

Consider first Lubukusu. Like Kinande, this is in the Great Lakes branch of Northeast Bantu, but they are from different subbranches of the family. Lubukusu is the language that we know the most about, thanks to the work of Michael Diercks and Justin Sikuku.[5] Its agreeing C is Agr-*li*; it is not clear whether this is cognate to Kinande's Agr-*ti* or not.[6] . Diercks (2013) includes a brief and somewhat open-ended

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[5] In addition to Diercks (2013), I have data collected in fall 2011 when Justin Sikuku was a postdoc at Rutgers, and he, I, and Ken Safir investigated sentential complementation in Lubukusu. Much but not all of this data is posted in Afranaph. Note that Sikuku speaks a slightly different dialect of Lubukusu from Diercks's consultants. See also Major, Sikuku, and Diercks (2023).

[6] The first impression is that they are not cognate. In Kinande, Agr-*ti* is related to the defective verb *ti* 'say', whereas in Lubukusu Agr-*li* seems to be related to the language's copula and focus particle. However, Major, Sikuku, and Diercks (2023) do document uses of *li* as a defective/stative verb of saying in Lubukusu as well. It would be worth comparing closely their arguments that *li* in Lubukusu can be a matrix verb with Spadine's (2020) arguments that *ʔil* in

discussion of the meaning of Agr-C near the end of his article. As in Kinande, some verbs in Lubukusu can select CPs with different complementizers, and this choice goes along with semantic differences. For example, 'say' can appear with the agreeing C *a-li*, or with the nonagreeing complementizer *bali*, as in (14).[7]

(14) Lubukusu (Diercks 2013: 395)

      *Mosesi a-lom-ile **a-li/bali** Sammy k-eb-ile chi-rupia.*
      CL1.Moses CL1.S.TNS-say-ASP CL1-C/that CL1.Sammy CL1.S-steal-ASP CL10-money
      "Moses has said that Sammy stole the money."

Diercks says that if Moses didn't see the event himself, but is reporting what other people have said, then *bali* is possible in (14), but agreeing *a-li* is not. This is like what we saw in Kinande, with *bali* playing approximately the same role as *ambu*. In contrast, if Moses saw the event himself, then *a-li* is possible. This is comparable to the use of Agr-*ti* in Kinande, since in this scenario Moses is the primary source of the content; he asserts it on his own authority, as an eyewitness of the event. Diercks also presents a similar contrast with the matrix verb 'hear'. Our work replicated Diercks' core observations. A revealing example from our data is (15), featuring the verb 'decide'. With *a-li*, John is committed to the proposition that Mary is guilty, but this is not part of the common ground; the speaker in particular is neutral as to the truth of this. With *bali*, Mary's guilt is more of a matter of hearsay; John is inclined to believe it, but the speaker is suspicious.

(15) Lubukusu (fieldwork, Justin Sikuku)

      *Yohana a-khalaka **a-li/bali** Marya a-li ne kamakoso.*

Tigrinya can be the complementizer of a root clause which licenses an additional specifier. Whether an item is a C or V and whether it can head a root utterance may be separate questions. But doing this must await future work.

[7] *Bali* looks like, and probably has its origins in, a form of *-li* that agrees with class two (human plural) subjects (*ba-*). However, it seems to have become a fixed/default form. It is conceivable that this is agreement with a pro-arb element that appears in Spec EvalP but does not undergo obligatory control. However, I do not adopt this view because of my overall theoretical position that obligatory control is obligatory when its context is met.

CL1.John CL1.TNS-decide CL1-C/that CL1.Mary CL1.S-be
with guilt
"John decided that Mary is guilty."

Lubukusu is also like Kinande in that Agr-*li* is not possible with
emotive factive verbs. These always take the complementizer *mbo* in
Diercks's (2013: 398-399) examples. Sikuku also avoids Agr-C with
this class of verbs, although he prefers to use *bali* rather than *mbo*, as
in (16). Other verbs that take *bali* in our data where *Agr+li* is bad or
disprefered are 'be surprised', 'mourn', 'blame/chide' and 'regret'.

(16) Lubukusu (fieldwork, Justin Sikuku)
    *Wafula ekicha Wekesa **bali/??a-li** a-cha engo.*
    CL1.Wafula CL1.S.blame CL1.Wekesa that/ ??CL1-C
    CL1.TNS-go home
    "Wafula blamed/chided Wekesa that he went home."

This is very similar to what we saw above in (7) from Kinande, where
an emotive factive verb appears with a nonagreeing complementizer
ngoko, but not with Agr-*ti*. There are also verbs in Lubukusu that
correspond to examples like those that require Agr-C in Kinande and
that are attested only with Agr-*li* in our data. This includes 'force', as
in (17), as well as 'permit' and 'warn'.

(17) Lubukusu (fieldwork, Justin Sikuku)
    Wekesa a-yingilila Wafula (a-li) a-ch-e mumu-lukha.
    CL1.Wekesa CL1.S-force CL1.Wafula CL1-C CL1.S-go-
    SBJV LOC-party
    "Wekesa forced Wafula to go [that he go] to the party."

I also mentioned above Diercks's (2013: 400-401) claim that there is
an animacy condition on Agr-C in Lubukusu, such that the controller
of the agreement must have a mind or must represent someone's mind
in some direct sense. Thus, there cannot be Agr-C in an example like
'The marks on the table made Alfred believe that rats were in the
house.' The broad lay of the land in Lubukusu is thus very similar to
that in Kinande when it comes to the semantics of C-agreement.[8]

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[8]
  One surprise in the Lubukusu data is that the Agr-C can sometimes agree with

There are two ways in which the semantics of the Agr-C construction in Lubukusu is different from that of Kinande, both of which can be taken to be lexical semantic in nature rather than pointing to a difference in the syntax. The first concerns semifactive verbs (factive verbs of cognition rather than emotion) like 'know', 'admit', 'show', and 'persuade'. These are attested only with *ko/ngoko* in Kinande, whereas they can be found with Agr-C in Lubukusu, according to both Diercks (2013) and Sikuku (Afranaph). This may be (at least in part) because the Lubukusu verbs have broader meanings than their English glosses have. For example, Diercks (2013: 396) shows that *manya* 'know' in Lubukusu can have a nonfactive sense, and this verb is also sometimes glossed as 'believe' in Afranaph. More work on the lexical semantics of attitude verbs in both Kinande and Lubukusu would be needed to clarify this situation. The second difference is that Diercks (2013) reports that the beliefs of the speaker influence the use of Agr-*li* as opposed to *bali* in Lubukusu in a way that has not been observed in Kinande. Thus, *bali* is used rather than *a-li* in (14) even if the matrix subject Moses claims to have seen the event, as long as the speaker of the sentence as a whole does not believe him. We also saw this in Sikuku's Lubukusu, where Agr-C tends to go along with the speaker's endorsement of the content of the CP complement. (Indeed, this component of the meaning is the most salient one with semi-factive verbs like 'know'.) I have not seen any evidence that Kinande has this additional layer of meaning. Hopefully this difference in meaning can simply be built into the denotation of the Eval heads in Lubukusu and Kinande. My claim does not need to be that the semantics of Agr-C is identical in the two languages; it is enough that both have the sort of semantics that motivates positing a semantically interpreted DP that is controlled by the matrix subject. The fact that additional semantic condition(s) on the use of Agr-C may hold in Lubukusu should be harmless to this account—although one would of course like to understand this better.

I turn next to Agr-C in Ibibio, a non-Bantu Niger-Congo language

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what corresponds to an expletive subject in English; see Diercks (2013: 385-386). In this way, Lubukusu seems to be different from both Ibibio and the expectations of a control-based theory. Sikuku (p.c.) agrees with Diercks's intuition that the putative expletive subjects in these examples actually refer to abstract nouns like 'the evidence', and are not true expletive constructions.

spoken in the Cross River region of Nigeria.[9] It is farther removed historically from Kinande and Lubukusu than they are from each other. Ibibio has two agreeing C-like elements that come historically from verbs: Agr-*te*, which could possibly be cognate with Agr-*ti* in Kinande, and Agr-*bo*, which clearly is not. As mentioned in §2.1, it is a disputable matter in Ibibio whether these elements are agreeing Cs or second verbs in a serial verb construction; see the appendix to this chapter for six arguments in favor of them being agreeing Cs. The syntax of Agr-C in Ibibio is different from that of Agr-C in Kinande and Lubukusu in that the Agr-Cs are not alternatives to nonagreeing Cs but rather optional elements that are stacked above the ordinary Cs.

The evidence that Agr-C has a semantic effect attributable to there being an SoK in Spec EvalP is harder to come by in Ibibio than it is in Kinande and Lubukusu. Verbs with very general meanings like 'say', 'tell', and 'think' optionally have Agr-C in their complements. However, in Ibibio these options do not go along with a difference in meaning as to who is primarily responsible for the content of the CP. For example, *a-bo* is optional in (18) regardless of whether it is an irrational fear of Okon's that his wife Enọ will die, which others do not share, or whether it is common knowledge that this will happen.

(18) Ibibio (fieldwork, Willie Willie)

> *Okon a-kere (**a-bo**) ke Enọ a-yaa-kpa.*
> Okon 3SG-think 3SG-C that Eno 3SG-FUT-die
> "Okon thinks/realizes that Eno will die."

I have many other examples of this sort, for which Willie reports no difference in the version with *a-bo* (or *a-te*) and the version without it.[10] Ibibio also has no known verbs which require Agr-C, as verbs like

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[9]
New data from Ibibio comes was collected in 26 3-page questionnaires filled out by Willie Udo Willie of the University of Uyo, Nigeria, between June 2020 and October 2022. During periods of active work, we did one such questionnaire per week, with some email follow up. Additional information on Ibibio comes from Afranaph. See also Torrence (2016), who worked with a different speaker.

[10]
It should be borne in mind that my method for collecting Ibibio data (see fn 9) was not ideal for detecting subtle semantic differences: it was not face to face, and it did not allow for the detection of hesitancies or for instant follow up. I thus do not rule out the possibility that there is a difference that I was not able to detect. However, I did test many conjectures about where a semantic effect might be found for a wide range of examples over the course of months. In contrast, the

'force', 'want', and 'permit' do in Kinande. In Ibibio, Agr-C is optional with this class of predicates, as shown in (19). (Note that with or without Agr-C, there is a distinctive subjunctive complementizer *yak*, unlike Kinande and Lubukusu.

(19) Ibibio (fieldwork, Willie Willie)
> *Nnyin i-yem (**i-bo / i-te**) yak ayin nnyin a-do andikan.*
> we 1.PL-want 1PL-C/1PL-C C.SBJV son our 3.SG-be winner
> "We want our son to be the winner."

These are nontrivial crosslinguistic differences.[11] But there are important similarities between Agr-C in Ibibio and Agr-C in Kinande and Lubukusu as well. First and foremost, Agr-C is incompatible with emotive factive verbs in Ibibio, as in Lubukusu and Kinande. Thus, examples like (20) disallow an agreeing complementizer.[12]

(20) Ibibio (fieldwork, Willie Willie)
> a. *Cleopatra á-túa-m̀kpéfiọ́k (*a-bo/*a-te) ké ànyé á-màá-dòt-ányìn ké Caesar*
> Cleopatra 3SG-regret 3SG-C/3SG-C that 3SG 3SG-PST-place-eye in Caesar
> "Cleopatra regrets that she trusted Ceasar."
>
> b. *Nnyin i-m-i-yat esit (?*i-bo/?*i-te) ke Okon a-maa-yip ebot odo.*
> we 1PL-PERF-1PL-be.hot heart 1PL-C/1PL-C that Okon 3SG-PST-steal goat the
> "We are upset (lit. hot-hearted) that Okon stole the goat."

Agreeing C was also rejected or highly degraded with *maa* 'like', *fina* 'worry', *baak* 'fear', and *nem-esit* 'be happy'. Agr-C is also impossible in Ibibio with verbs that take CP complements but are not

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distinction in Kinande appeared clearly in the first pair we checked.

[11] Ibibio is also relatively tolerant of inanimate DPs as the matrix subject of an upward C-agreement construction. For example, 'Scratches on the table show Agr-C that there are rats in the house' was accepted in Ibibio.

[12] Agr-C is, however, possible in Ibibio with semifactive verbs like 'remember' and 'know'. In this, Ibibio is like Lubukusu but different from Kinande (see (6)).

attitude verbs, such as the causative verb 'make'. Unlike 'want', the subject of 'make' does not need to mentally represent the event that he/she is causing. Therefore in (21) the content 'I read book' does not necessarily originate in the mind of Okon, so Agr-C is impossible.

(21) Ibibio (fieldwork, Willie Willie)
> *Okon a-maa-nam (*a-bo) yak ng-kot ngwet.*
> Okon 3SG-PST-make 3SG-C C.SBJV 1SG-read book
> "Okon made me read the book."

It is also notable that verbs with inherent negative content, like 'deny' and 'doubt' are incompatible with using an agreeing C in their complements in Ibibio. (22) is an example.

(22) Ibibio (fieldwork, Willie Willie)
> *Okon a-maa-kañ (??a-bo/??a-te) ke Emem a-ke-yip ebot.*
> Okon 3SG-PST-deny 3SG-c/3SG-C that Emem 3SG-PST-steal goat
> "Okon denied that Emem stole a goat."

This restriction makes sense given my analysis: if Agr-C is used when the subject of the matrix clause has distinctive responsibility as the source of the content, then it cannot be used with 'doubt' and 'deny' where part of the lexical meaning of the verb is that the subject disavows the content of the CP complement.[13] Finally, although Ibibio allows C-agreement with inanimate subjects, it does not allow C-agreement with genuinely idiomatic subjects, or with the expletive subjects of verbs like 'seem', 'be good' and 'be clear'.

(23) Ibibio (fieldwork, Willie Willie)
> a. *Obuut a-maa-mʌm Okon (*a-bo/*a-te) ke anye a-maa-yip ngwet.*
> shame 3SG-PST-hold Okon 3SG-C/3SG-C that 3SG 3SG-PST-steal book
> "Okon is ashamed (lit. shame holds Okon) that he stole the book."
>
> b. *A-fọn (*a-bo) ke Mary a-do andikan.*
> 3SG-good 3 SG-C that Mary 3SG-be winner

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[13] Different from 'doubt' is 'not know', which does allow an agreeing complementizer. Presumably this is a scope effect: negation comes in to deny the matrix subject's commitment to the content of CP after C-agreement has already been licensed in the domain of the matrix VoiceP.

"It is good that Mary is the winner."

Note that pure agreement, even multiple pure agreement such as that found in auxiliary constructions in Ibibio, is possible with this class of subjects, as shown in (24). This shows that it is the Spec EvalP itself that is giving the restrictions in (23), not the presence of a second agreement with the same nonreferential item per se.

(24) Ibibio (fieldwork, Willie Willie)

      a. *Obuut a-sʌk a-mʌn Okon ke anye a-maa-yip ngwet.*
       shame 3SG-PROG 3SG-hold Okon that 3SG 3SG-PST-steal book
      "Okon is being ashamed that he stole the book."

      b. *A-neke   a-fǫn   ke Mary a-do   andikan.*
       3SG-be.very 3SG-be.good that Mary 3SG-be winner
      "It is very good that Mary is the winner."

All told, then, Ibibio also offers converging reasons to say that Agr-C agrees with SoK with its detectable semantics. This semantics seems to be somewhat bleached in Ibibio as compared to the other languages, but it is still present.

Can we say anything about why the semantics of SoK is less noticeable in some areas of Ibibio than it is in Kinande and Lubukusu? A conjecture is that this is related to the distinctive way that the C-space is structured in Ibibio, in which Agr-Cs stack on top of normal Cs, rather than competing for the same position as other complementizers. This more articulated, less "bundled" C-space might make a difference. Also relevant is the fact that the nonagreeing Cs in Ibibio are sensitive to different grammatical distinctions than in Kinande and Lubukusu. For example, it is notable that the CPs that require Agr-C in Kinande correspond to CPs that have the subjunctive complementizer *yak* in Ibibio, a lexical item which does not have a direct equivalent in Kinande or Lubukusu (those languages use the normal agreeing C together with the subjunctive final vowel *-e*). Therefore, the crucial semantic contribution that Agr-C makes in constructions with verbs like 'want' and 'force' in Kinande can be made by *yak* without the help of Agr-C in Ibibio. That might help to account for that part of the pattern in Ibibio. However, a hypothesis along these lines does not offer any obvious way of explaining why there is no meaning shift induced by Agr-C with a verb like 'think' in Ibibio. This remains an open question for now.

Consider next Kipsigis, a Nilo-Saharan language spoken in Kenya. It is typologically rather different from the Niger-Congo languages

discussed so far, with VSO word order and marked nominative case. Diercks & Rao (2019) argue that it has upward C-agreement in a way that is comparable to Lubukusu.[14] If so, there is an areal connection with other C-agreeing languages, but not a direct genetic one. Moreover, Diercks & Rao identify two interpretive effects of having apparently optional C-agreement in Kipsigis, stated in (25).

(25) a. Subj-CA is most appropriate when the agreement trigger is the source of the information communicated in the embedded clause.
      b. Subj-CA is most appropriate when it heads a CP whose propositional content is being added to the Common Ground.

These conditions are very similar to what I identified for Kinande. (25a) is essentially the same as what I have been emphasizing as being the difference between (say) using Agr-*ti* rather than *ambu* in Kinande. (25b) implies that Agr-C in Kipsigis tends to be used when the CP is asserted rather than presupposed—when it is not already in the common ground. This recalls the difference between Agr-C and factive *ko/ng'oko* in Kinande. For example, agreeing C is natural with the matrix 'say' but variable with the matrix verb 'hear'.

(26) Kipsigis (Diercks & Rao 2019)
      a. *Ko-a-mwaa a-lɛ/kɔlɛ   ko-Ø-ɾuuja tuɣa   amut.*
         PST-1SG-say 1SG-C/that PST-3-sleep cows yesterday
         "I said that the cows slept yesterday."

      b. *Ko-a-ɣas   %a-lɛ /kɔlɛ   ko-Ø-ɪt   laɣok.*
         PST-1SG-hear %1SG-C /that PST-3-arrive children
         "I heard that the children arrived."

This is analogous to the fact that plain Agr-C is fine with 'say' in Kinande, but with 'hear' Agr-C is only used in conjunction with the hearsay C *ambu*. Indeed, one of Diercks and Rao's speakers observed that the Agreeing C in (26b) seems to imply that "the information is coming from you" (see also Driemel & Kouneli (in press: 18) for the

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[14] Driemel & Kouneli (in press) (D&K) dispute this view, arguing that the relevant item in Kipsigis is synchronically still the verb 'say'. Similar to Bossi (2023), I tentatively take the view that the crucial element *-le* can be structurally ambiguous: sometimes it is the verb 'say' (especially when it means 'say') and sometimes it is a true C head (especially when it has no discernable lexical meaning). See §2.4 for some discussion.

observation that *le* agrees with the source of information, and that the agreed with DP must normally be animate). This is like how Agr-*ti ambu* differs from plain *ambu* in (10a) from Kinande: using Agr-*ti* presents the matrix subject as an intermediate source of the information, even though its ultimate origins are from someone else. Another case of optional Agr-C that Diercks & Rao discuss is (27).

(27) Kipsigis (Diercks & Rao 2019)

      ko-a-mwɔɔ-tʃi Kibeet a-lɛ/ kɔlɛ ko-Ø-ɪt   tuɣa amut.
      PST-1SG-tell-3.O Kibeet 1SG-C/that PST-3-arrive cows yesterday
      "I told Kibeet that the cows arrived yesterday."

They say that when the speaker and hearer already share the knowledge that the cows arrived yesterday (they saw them come together), and the main point of the sentence is to communicate that the speaker informed Kibeet of this, then nonagreeing *kɔlɛ* is very natural. That is the kind of situation in which Kinande uses nonagreeing *ng'oko*. In contrast, when the fact that the cows came home is new information for the addressee and this is part of what the speaker intends to convey to them, then agreeing *a-lɛ* is the natural choice. This is the sort of situation in which Kinande would also use the agreeing C. Again, we see a good deal of similarity in what Agr-C means and how it contrasts with other Cs across languages. Although Diercks & Rao assert clearly that the meaning of Agr-C is not the same in Lubukusu and Kipsigis, Kipsigis and Kinande may be close to the same, to the level of detail that we have achieved so far.[15] (In particular, both of them seem to lack the speaker-oriented evidential overlay that Lubukusu's Agreeing C has.[16])

Finally, I consider briefly Chokwe, part of a cluster of closely related Bantu languages spoken in Zambia and Angola studied by Kawasha

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[15] One difference, however, is that Driemel & Kouneli show that agreeing *le* in Kipsigis is compatible with emotive factive verbs, whereas Agr-C is not in Kinande, Lubukusu, and Ibibio. I have no proposal to make about this.

[16] In the variety of Kipsigis described by Diercks & Rao, the nonargeeing C *kɔlɛ* seems always to be possible, as an alternative to Agr-C. This it is approximately like *bali* in Sikuku's dialect of Lubukusu. The variety described by Driemel & Kouneli (from a different area) apparently lacks this form, but often allows *kè:-lé* with an impersonal agreement prefix; this gives a rumor/hearsay interpretation that looks similar to how *ambu* is used in Kinande.

(2007). These languages are interesting in that the origins of their agreeing Cs are quite different: they are not cognate with a verb meaning 'say'; rather they are related to possessive pronouns with suffixal person/number/class agreement. This shows that agreeing Cs are not just some quirk of 'say' complementizers, possibly reduced to the verb meaning 'say'. An example is (28).

(28) Chokwe (Kawasha 2007)

     Ka-na-ambe **ngw-enyi** *mw-angana h-a-fwa.*
     1SG.S-TNS-say C-CL1   CL1-chief   TNS-CL1.S-die
     "He said that the chief is dead."

The agreeing C is used with verbs of perception, communication, cognition, and thought, as well as subjunctive-clause-takers like 'want' and 'think'—all usual suspects, familiar from other African languages. A key observation of Kawasha's (2007: 185) is:

> When the content of the complement clause is not asserted by the subject of the main clause, that is, when a person reports what he or she just hears … , the class 2 complementizers *nawu* in Lunda, *ngwo* in Chokwe, and *ngwavo* in Luchazi and Luvale are used instead of the one agreeing with the subject of the main clause.

(Class 2 here is third plural animate, used as a default form, like *bali* in Lubukusu.) Kawasha's example of this is with 'hear' used in the semifactive sense of 'understand', which takes the nonagreeing C.

(29) Chokwe (Kawasha 2007)

     Ngu-ne-evo   **ngwo** *mu-angana h-a-fw-a.*
     1SG.S-TNS-hear that   CL1-chief   TNS-CL1.S-die
     "I hear (understand) that the chief is dead." (The Agr-C form would be *ngw-ami*, p. 184)

Kashawa's invocation of the notion of assertion here is like what Diercks & Rao say about Kipsigis, which in turn is like Kinande.[17]

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[17] Letsholo & Safir (2019) report preliminary work on the Bantu language Ikalanga, spoken in Botswana and Zimbabwe. They say that relatively few verbs allow Agr-C in this language, compared to Lubukusu. The ones that do ('ask', 'say', 'tell', 'tell', 'agree'/ 'believe', 'disagree', and 'think') are a subset of the verbs that take Agr-C in Lubukusu. In contrast, the (semi)factive verb 'prove' does not allow Agr-C but only *kuti*. Ikalanga thus seems consistent with the overall

I conclude that the semantic connection that CP seems to have with the NP that C agrees with is not accidental; rather, it can be observed to varying degrees in all the African languages that are known to have this phenomenon. This is reasonably consistent inside and outside the Niger-Congo family, and inside and outside the Bantu subfamily of Niger-Congo, from Nigeria to Kenya and south to Botswana. It is also consistent regardless of whether Agr-C evolved out of the verb 'say' (the most common case) or some other verb ('be' in Lubukusu) or from some very different source (Chokwe). This testifies to a UG component in the analysis of even this rare phenomenon. More specifically, it supports a version of Diercks's (2013) indirect agreement hypothesis in which the agreed-with null DP is an SoK in Spec EvalP in the sense of Speas & Tenny (2003). This SoK is one of the ghostly DP operators in the CP space that I posited in Chapter 1, part of the UG skeleton that can be recruited as an ingredient for a range of "funny things that Cs do to relate to the NPs around them."

3. The Obligatory Control of SoK

3.1. Theoretical preliminaries

A clear cost to the view that C agrees directly with a null DP in its immediate vicinity is that one needs to have an analysis of how that null DP relates to the superordinate subject. Agreement itself can be simple and very local on this sort of view, but there is another grammatical relationship to explicate. A central and distinctive aspect of my theory is that this relationship is an instance of *obligatory control* (OC). This is the second major piece of the analysis sketched in (30) (repeated from (3)). This seems to fit the job better than alternatives, like Diercks's appeal to a null subject-oriented anaphor. At the same time, it is significantly and correctly more constrained than views that say that the subject of the agreeing element is just a null pronoun pro, which gets an antecedent from the matrix clause or the discourse context by ordinary pronominal coreference, such as Driemel & Kouneli (in press) and Major et al. (2023).

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picture I am painting, but there may be some idiosyncratic lexical-selectional factors at work in this language too.

(30) [Kambale:3sg told women [$_{EvalP}$ SoK:3sg Eval:3sg [Maria buy...]]]

control　　　　　Agree　licensing

My case for this being OC can be framed by saying that it fits the "Obligatory Control Signature" identified by Landau (2013) in his authoritative review of the literature on control up to that point. Landau states this as in (31) (building on Manzini (1983), Landau (2001), etc.).[18]

(31) *The OC signature:*   (Landau 2013: 29)
      In a control construction [...X_i ... [$_s$ PRO$_i$ ...] ...], where X
      controls the PRO subject of the clause S:
      a. The controller(s) X must be (a) co-dependent(s) of S.
      b. PRO (or part of it) must be interpreted as a bound variable.

The fundamental insight of (31a) is that when a clause containing PRO is an argument or adjunct-modifier of a verb (or other lexical head), then PRO must be controlled by an(other) argument of the same verb. This is what Landau means by saying that X and S must be "co-dependents". The upshot of this is that PROs in CP complements and some adjunct clauses undergo a form of control that places strong syntactic conditions on what can be the controller, whereas PROs in clauses in other syntactic positions (e.g., CP subjects and extraposed clauses in adjoined positions) are much less constrained as to what can be their antecedent can be—so-called nonobligatory control (NOC).

Adapting this to the current context, I restate and generalize (31) into a working version of a Generalized OC Signature in (32).

(32) The Generalized OC Signature: (GOCS)
      If a clause with an intrinsically null DP (PRO, SoK, other "ghostly DPs",...) at its edge is generated within the VP (/XP) headed by the verb V (/lexical head X) , then the null DP is controlled by an argument of V (/X). Which argument of V (/X) is the controller is determined by the thematic roles of the controller and the controlee.

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[18] Some of this discussion of the GOCS and its relationship to Landau's OC signature is borrowed from Baker and Ikawa (2024).

The crucial change between (31) and (32) is that (32) refers to a larger class of controllable elements, including not only ordinary PRO but also SoK and the other ghostly DP operators that underlie the funny things that Cs do to relate to the NPs around them, according to the hypothesis presented in Chapter 1. I assume that this is a natural class of elements, consisting roughly of minimal pronouns that are necessarily phonologically null and are licensed as the specifiers of special functional heads high in the clausal spine (e.g., nonfinite T for PRO, Eval for SoK, etc.). However, I do not attempt a precise definition of this class here (see Chapter 8 for some more on this).[19]

The other changes between (31) and (32) are more or less housekeeping matters, in the pursuit of clarity. Landau's way of stating his precondition in (31) is a bit ambiguous as to whether control into a clause dependent on V is required or merely possible, although aspects of his discussion imply that it is required. I make this explicit in (32), putting that control happens as well as what must be the controller in the consequent side of the conditional. In interpreting it this way, I am treating the GOCS as an active principle of grammar, whereas Landau arguably thought of (31) as a taxonomic generalization, setting out which instances of control count as OC as opposed to NOC. Second, I state that the controlled clause must be inside the VP headed by the matrix verb, replacing Landau's somewhat informal term "co-dependent", a cover term intended to include both complements and adjuncts.[20] Third, I state (32) primarily in terms of verbs, their arguments, and clauses that are merged with them, but I also allow for the control predicate being of some other category X (noun, adjective, …). We will see some examples of OC inside nominals by the end of this chapter. Fourth, I drop (31b) from

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[19] Like (31), (32) does not take into account the fact that overt anaphors (and perhaps pronouns) can appear in controlled positions in some languages, including the East Asian languages; see Landau (2013: 117-119) for an overview. This is relevant to how we should think of the full class of controllable elements, which I leave open until a brief discussion in Chapter 8.

[20] Whether the exact location of a controlled-into clause is inside VP or some constituent that is a bit bigger is a debatable matter (which I return to some in Chapter 8). Resolving this would depend on knowing exactly where clausal adjuncts of various kinds are generated in the languages studied here, which I cannot be very precise about at this stage (except for English).

my version of the OCS, since I do not consider the semantics of the relevant constructions in any formal detail (see §1.5.2 for some rationale/apologia). I assume that SoK in (30) is indeed interpreted as a variable bound by the matrix subject, and do not know anything against this, but I admit that I have not investigated this in any detail.[21]

The second sentence of (32) makes explicit Landau's (2013) conclusion, synthesizing much previous work, that which argument of the matrix verb controls the null DP is not specified by the OC signature—the core syntactic principle of obligatory control—but can vary from example to example in complex ways. This will be a topic of much discussion as my inquiry unfolds. When it comes to SoK and the other ghostly DP operators focused on in this work, I argue for the generalization in (33).

(33) The obligatory controller of X in a CP inside VP is the argument of V whose thematic role (best) matches the thematic role of X.

For starters, (33) captures the fact that it is the subject *Kambale* that controls SoK in (30), not the object 'the women', given the Speas-Tenny assumption that SoK gets a subject/agent-like theta-role from Eval. Some initial grounding for this assumption is the fact that the C/Eval head that licenses SoK is often (although not always) historically related to the verb 'say', with the SoK argument of Eval parallel to the agent argument of 'say'. Supporting (33) in the domain of ghostly operators is in most cases relatively straightforward. What is much less straightforward is showing that (33) also has validity for the ordinary control of PRO, where examples of the theme or goal argument of the matrix verb controlling the agent argument of its infinitival complement abound. In Chapter 8, I discuss this issue in

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[21] In many cases, it is not so obvious how to test this hypothesis, given the challenges of observing SoK directly. However, it should be open to empirical investigation. For instance, one could consider an example with a quantified matrix subject like 'Everyone thinks 3sg-that 3.sg will die' in Kinande (cf. (4a)) to see if it means 'For all x, x thinks that x will die, and the source of x's thought is x' (e.g., everyone has their own potentially irrational fear that they themself will die). Similarly, one could see if in an ellipsis context like 'Kambale thinks Agr-C 3.sg will die and Maria (does) too' the source of Maria's thought about impending death is Maria's psychology (not Kambale's). My bet is that SoK is a bound variable in these respects.

detail, starting from Panter & Köpcke's (1993) idea that a kind of thematic role matching is at work for PRO in English and German.

These claims can also be seen against the background of the literature on upward C-agreement. Diercks's (2013: 362) argues for the following condition in Lubukusu with considerable care and over a significant empirical range.

(34) Lubukusu Complementizer Agreement Generalization: Complementizers agree only with the most local superordinate subject.

I build on this generalization along two dimensions. First, I confirm that a condition like this is robust in that it carries over also to other languages (Ibibio, Kinande, etc.). Second, I consider more carefully exactly what "subject" means in this condition. It is well-known that generative theory makes available multiple senses of the notion subject, depending on what subparts of the theory are involved (see McCloskey (1997) for an overview). For example, there is the notion of a thematic subject, versus the notion of a structural subject, versus the notion of a subject for purposes of case and agreement. These different notions of subject line up with each other in many cases. But they can also come apart in a few very instructive cases. For example, the thematic subject (agent) is different from the structural subject (Spec TP) in passive sentences. Similarly, the structural subject (Spec TP) is different from the subject for case and agreement (the nominative DP) in dative subject constructions in Icelandic. When one plays close attention to this and tries to harmonize the crosslinguistic data, I claim that Dierck's unified condition in (34) breaks down into the two distinguishable conditions in (35).[22]

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[22] It is clear that Diercks had in mind the *structural* subject (in Spec TP) and the *agreement* subject (the nominal which agrees with T), which are extensionally the same thing in Bantu languages (see Baker 2008: Ch.5 and Carstens 2005, among others). He argues against C-agreement being controlled by the "logophoric center", which is very similar to the thematic subject as I develop that notion. However, some of his remarks about the effect on C-agreement of a *by*-phrase in passives are precursors to the idea that (35a) holds as well as (35b).

(35) a. The SoK that C agrees with can only be controlled by the closest thematic subject.

    b. C can agree with SoK only if T enters into an Agree relationship with the controller of SoK. (*The T/Agree Condition*)

In other words, indirect C agreement is manifest with DP X only if DP X is both a thematic subject and an agreement subject. The subgeneralization in (35a) is essentially the result of the GOCS together with (33); its reference to thematic roles shows that it a reflex of control theory. (35b) emerges as a further condition on upward C-agreement, with quite a different nature; I refer to it as the *T/Agree Condition*. In addition to the fact that they invoke quite different theoretical notions, a broader typological perspective makes the distinctness of the two conditions evident. All of the ghostly operator constructions from Chapter 1 will be found to obey (35a), whereas most of the others do not obey (35b).

In the rest of this section, I develop the argument that upward C-agreement constructions involve obligatory control in the following steps. First, I consider the structural conditions that the GOCS in (32) places on the controller in §2.3.2. Next, I consider the thematic conditions relevant to this type of control in §2.3.3, supporting (33). Finally, I consider the conditions that the GOCS places on the position of the clause that contains the controlled element in §2.3.4. As the discussion unfolds, I point out nearby data that are not ruled out by (32) and (33) but are ruled out by the T/Agree Condition. In this section, I merely recognize this as an additional factor at work in upward C agreement, returning to the task of explaining it in terms of the theory of Agree later in the chapter, in §2.5.

3.2. Structural conditions on the controller

I begin with the evidence that the controller of SoK must be an argument of the verb that the clause containing it depends on, in accordance with the GOCS. First and foremost, this generalization covers the robust fact that only the *closest* superordinate subject can control C-agreement in cases of full finite embedding. Diercks (2013: 373-374) shows this for Lubukusu and Diercks & Rao (2019: 374 (9)) do so for Kipsigis (also D&K give no examples to the contrary). (36) shows the same thing for Kinande and (37) for Ibibio (see also Torrence (2016)). For example, in (36), the C of the most deeply

embedded clause can agree with *Kambale*, the subject of the verb that selects that clause, but not with 'the women', the subject of a higher verb. (37) is very similar.

(36) Kinande (fieldwork, Philip Mutaka)
   Aba-kali ba-lya-buga ba-ti Kambale a-kalenge-kanaya
   ***a-ti/*ba-ti** ba-kandi-mu-la:kya.*
   CL2-women CL2.S-TNS-say CL2-C CL1.Kambale CL1.S-TNS.ASP-think CL1-C/*CL.2-C CL2.S-TNS-CL1.O-beat
   "The women say that Kambale thinks that they will beat him."

(37) Ibibio (fieldwork, Willie Willie)
   *Okon á-kére a-bo ké ndito̟ e-ké-n-do̟kkò̟ **e-bo/*a-bo** ké*
   Mfo̟n é-kpóno ímò̟.
   Okon 3SG-think 3SG-C that children 3PL-TNS-1SG.O-tell 3PL-C/*3SG-C that Mfon 3SG.3.LOG.O-respect LOG
   "Okon thinks that the children told me that Mfon respects him."

In the examples in (36) and (37), the highest subject is separated from the lowest Agr-C by two full CP boundaries. However, the same restriction holds even when the complement of the highest verb is reduced, possibly smaller than a full CP. For example, in (38) from Kinande, the complement of the highest verb 'make' does not have an overt C node. Nevertheless, Agr-C in the complement of 'think' cannot agree with the subject of 'make' rather than the subject of 'think'. See Diercks (2013: 371 (38)) for a similar Lubukusu example.

(38) Kinande (fieldwork, Philip Mutaka)
   Aba-kali mo-ba-lek-ire Kambale in-a-lenge-kania a-ti/*ba-ti a-kandi-hola.
   CL2-women AFF-CL2.S.TNS-let-ASP CL1.Kambale ??-CL1.S-TNS-think CL1-C/*CL2-C CL1.S-FUT-die
   "The women made Kambale think that he is going to die."

This is also true in (39) from Ibibio, where the complement of the causative verb 'make' does not allow either an overt C head nor any tense marking, although the verb does agree with its subject *Koko*.

(39) Ibibio (fieldwork, Willie Willie)
   M-ma-n-nam Koko á-kere a-bo/*m-bo ke Eno̟ a-maa-kpa.
   1SG-PST-1SG-make Koko 3SG-think 3SG-C/*1SG-C that Eno 3SG-PST-die
   "I made Koko believe that Eno died."

This follows the GOCS as well: the lowest CP with the agreeing complementizer is not the complement of 'make', nor is it adjoined to the VP headed by this verb. Therefore, the agent argument of 'make' cannot be the controller of SoK in these examples. In contrast, if one thought of the restriction against Agr-C agreeing long distance as primarily being a matter of a locality condition like the PIC, then one might expect reduced TP/VP complements to behave differently, since they lack C as an additional phase head. The GOCS's formulation in terms of argument structure is thus superior to the PIC in this respect.

The smallest verbal complements of all are those that are selected by affixal causative elements in languages that have them. I assume that such causative items are distinct syntactic elements (Baker 1988) which select a VP or VoiceP complement, rather than a CP or TP. For productive causatives in Kinande, Agr-C cannot agree with either the causee or the causer, as shown in (40).

(40) Kinande (fieldwork, Philip Mutaka)
   a. *?Aba-kali bá-lya-buy-isaya Kambale ngoko/*a-ti/*ba-ti a-kandi-gula ehi-lole.*
   CL2-women CL2-TNS-say-CAUS CL1.Kambale that/CL1-C/CL2-C CL1.S-FUT-buy CL19-bananas
   "The women made Kambale say that he will buy bananas."

   b. *Aba-kali ba-lag-isaya Kambale *a-ti/*ba-ti ba-ka:sa.*
   CL2-women CL2.TNS-announce-CAUS CL1.Kambale CL1-C/CL2-C CL2.S-TNS-come
   "The women (powerful witches who take over his body) made Kambale announce that they are coming." (OK with *ngoko*)

Note that the base verbs in these examples, 'say' and 'announce', are compatible with Agr-C in their complement, as expected. Letsholo & Safir (2019) point out the same effect in Ikalanga: neither the causee nor the causer can control Agr-C in (41b). Compare the noncausative example in (41a), which allows C-agreement.

(41) Ikalanga (Letsholo & Safir 2019)
   a. *Neo w-aka-zwi-buzw-a **(a)-ka-ti** a Nchidzi w-aka-tenga lori tshwa.*
   CL1.Neo CL1.S-PST-REFL-ask CL1-PST-C Q CL1.Nchidzi CL1.S-PST-buy car new
   "Neo asked herself whether Nichidzi had bought a new car."

*b. Ba-isana b-aka-buzw-isa Neo mme-abe **kuti/*e-ti/*be-ti** kene b-aka-tenga ma-bisi.*
CL2-boys CL2-PST-ask-CAUS CL1.Neo mother-her
that/*CL1-C/*CL2-C whether CL2.S-PST-buy CL6-melons
"The boys made Neo ask her mother whether they had bought melons."

By hypothesis, the structure of an example like (40a) is roughly (42), with the causee in the specifier of the VoiceP complement of 'make'.

(42) [$_{TP}$ Women$_i$ T [$_{VoiP}$ t$_i$ Voi [$_{VP}$ make [$_{VoiP}$ Kambale$_k$ Voi [$_{VP}$ say [$_{CP}$ SoK$_{*i,*k}$ that [$_{TP}$ he will buy bananas]]]]]]]]

The causer 'woman' is not eligible to control SoK, because it is not an argument of 'say', the verb that takes CP as its complement. This is another effect of the GOCS.

In contrast, the GOCS does allow the causee *Kambale* to control SoK in a structure like (42), since this is an argument of the verb (more precisely, of the verbal complex, consisting of Voice+V) that selects CP. However, the causee cannot in fact be the target of upward C-agreement in (40a,b) and (41b). This is our first indication that agreement on C is constrained by the T/Agree Condition as well as by the GOCS. What is special about causees in these languages is that they are thematic subjects that T does not agree with; there is only one T head above SoK in (42), and it agrees with the causer rather than the causee. That is why *Neo* can trigger agreement on C in (41a) but not in (41b), I claim. Particularly instructive is the minimal comparison between (40)/(41b) and (39), the periphrastic causative construction in Ibibio. (42) could very well be the structure for (39) as well; there is no possibility of an overt C or T head in the complement of 'make', hence no clear evidence that the complement of 'make' is more than a VoiceP. However, there is agreement with the causee internal to the complement of 'make' in Ibibio; I tentatively assume that Voice agrees with the NP in Spec VoiceP in this language, in addition to normal T agreement. This can be seen independently of causative constructions in the fact that tense-marked verbs have double subject agreement in Ibibio: one instance of subject agreement appears before the tense morpheme, and one appears after it, attached directly to the

verb root (see (2) and (39), among many other examples[23]). So in Ibibio where the causee triggers agreement on the verb, the causee can trigger agreement on C as well, whereas in Kinande where the causee does not trigger agreement on the verb, it cannot trigger agreement on C either. This is the T/Agree Condition in (35b). In fact, (35b) needs to be revised to say something like "C can agree with SoK only if some head in the clausal spine enters into an Agree relationship with the controller of SoK", where "some head" includes Voice as well as T. However, T accounts for the bulk of the cases, so I continue use that label for the empirical generalization.[24]

We can pursue this a step further to tease out our first hint that the GOCS and the T/Agree Condition block C-agreement with particular NPs in different ways. Recall that Kinande has certain verbs that require an agreeing C in their CP complement in simple active structures. One of these is 'want', as in (43a); the alternative Cs *ambu* and *ngoko* are ruled out in the complement of this verb. Now a causative based on 'want' is grammatical, as shown in (43b), but like in (40) the CP complement of the base verb must be a nonagreeing C (here *ambu*), given the GOCS and the T/Agree Condition.

(43) Kinande (fieldwork, Philip Mutaka)
      a. *Kambale a-sond-ire a-ti/*ambu (kumba) i-tw-a-mu-tsakura.*
      CL1.Kambale CL1.S-want-ASP CL1.-C/*they.say forcefully
      ??-1PL.S-TNS-CL1.O-choose
      "Kambale wants us to vote for him."

      b. *Aba-kali mo-ba-sond-esirye Kambere ambu/*a-ti/*ba-ti mupaka a-gend-e omo-soko.*
      CL2-women AFF-CL2.S-want-CAUS.ASP CL1.Kambere
      they.say/*CL1-C/*CL2-C forcefully CL1.S-GO-SBJV LOC-market
      "The women made Kambere want to go to the market."

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[23] When the subject agreement is /a/ for 3SG it usually deletes after vowel-final T markers by normal phonological rules of vowel hiatus. In these cases, I do not gloss the second subject agreement marker. This somewhat obscures the generality of double subject agreement in Ibibio.

[24] There is some question as to whether object agreement also allows an argument to trigger agreement on C when other circumstances (like thematic-role matching) might allow this. If the answer is no, then (35b) must refer to a narrower class of heads (T-like ones) after all. See xx for some discussion.

(43a) implies that 'want' in Kinande selects for an EvalP complement with SoK in its Spec, for semantic reasons (see §2.2.1). All things being equal, we expect this selectional requirement to carry over to the situation in which a VP headed by 'want' appears in the complement of the causative morpheme, as in (43b). Therefore, we expect the most embedded CP in (43b) to contain an SoK too. This needs to be controlled by the wanter argument, in order to get the meaning to work out right, since the immediate source of the content 'he go to the market' is the wanter Kambere. We thus have reason to think that control of SoK by the causee in (43b) actually takes place, even though this does not allow C to agree with the wanter indirectly via SoK, making *a-ti* impossible. This is one reason why (35b) is phrased as a condition on C agreeing with SoK, not a condition on a DP controlling SoK. In contrast, the fact that 'women' cannot trigger agreement on C in (43b) (so *ba-li* is also impossible) is because it cannot control SoK in the first place, 'the women' not being an argument of 'want', the verb that selects a CP complement, but only of 'cause'. This subtle fact about (43b) is a clue to the nature of the T/Agree Condition, a lead I pick up in §2.5.

It is important to keep in mind that I have been talking about productive causatives that correspond to the complex syntactic structure in (42). Some superficially similar morphological causatives have no doubt become listed lexical items, with a syntactic structure that is not any different from that of a morphologically simple triadic verb like 'tell'. For example, 'remember-CAUS' in Kinande is different from 'say-CAUS', 'announce-CAUS' and 'want-CAUS' in that it does allow the surface subject (the apparent causer) to control C-agreement in the complement clause, as shown in (44).

(44) Kinande (fieldwork, Philip Mutaka)
       *Yohani mo-a-sirisya-buk-ia aba-kholho **a-ti** ba-lwe b'-eri-soma echapitre 2.*
       CL1.John AFF-CL1.S-TNS.ASP-remember-CAUS CL2-students CL1-C CL2-AUX CL2-INF-read chapter 2
       "John reminded (lit. 'made remember') the students that they should read chapter 2."

This is simply because 'remember-CAUS' has become the Kinande word for 'remind', a triadic verb with the same argument structure as 'tell'. Therefore, the subject of this verb can trigger C-agreement just as the subject of 'tell' can, in line with both the GOCS and the T/Agee

Condition. I expect, then, there to be some variation between productive causative derivations and lexicalized causative verbs. Diercks (2014: 370 (37)) gives an example similar to (44) in Lubukusu, where the morphological form 'know-CAUS' is glossed as 'inform' (which is not quite the same thing). He also has examples with the glosses 'cause-to-believe' (p. 367, ex (22), (23)), which may really be 'convince', and 'cause-to-be-surprised', which may be 'surprise'. Comparing Diercks (2013) and Letsholo and Safir (2019), it looks like Lubukusu allows causers to control C-agreement in the presence of causees, whereas Ikalanga does not. But this may not be a genuine syntactic difference between the two languages, but Diercks happened to consider lexicalized causatives whereas Letsholo and Safir considered a syntactic causative. It will take careful investigation across a wider range of examples to see if there is true grammatical variation among the Bantu languages on this point.[25] (Ibibio and Kipsigis do not have morphological causative constructions, so this issue does not arise in those languages.)

Another first-order fact about the controller of upward C-agreement that is attributable to the GOCS is the fact that C can agree with an argument of the matrix verb but not with the possessor of an argument of the matrix verb. This is shown in (45) for Kinande, and in (46) for Ibibio; see Diercks (2013: 400-401) for Lubukusu data.

(45) Kinande (fieldwork, Philip Mutaka)
       Eba-ruha y-a Kambale yi-ka-buga yi-ti/??a-ti a-kisig' ini-a-sa.
       CL9-letter CL9-ASS CL1-Kambale CL9.S-TNS-say CL9-C/??CL1-C CL1.S-AUX ??-CL.1.S-come
       "Kambale's letter says that he will come soon."

(46) Ibibio (fieldwork, Willie Willie)
       *Détá nditọ a-ḱé-bó *é-te/á-te ké Edem i-maá-ghá mm-ímọ̀.*
       letter children 3SG-PST-say *3PL-C/3SG-C that Edem 3SG-like-NEG PL-LOG
       "The children's letter says that Edem does not like them."

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[25] To follow up on this, I elicited a small number of additional Lubukusu causatives from Justin Sikuku by email, modeled on the Kinande examples in (40). I did not find any in which the causer could not trigger agreement on C. It is possible that Lubukusu has only lexically-derived causatives, or that the structure of syntactic causatives is a bit different from other languages in some way.

For example, (45) is bad with *a-ti* rather than *yi-ti* because 'Kambale' cannot control SoK, it not being an argument of the verb 'say' that selects the CP that contains SoK. (46) is similar. If the antecedent of SoK was semantically constrained to be the source of the content of CP, but not syntactically constrained to be an argument of the matrix verb, then *a-ti* here could very well be possible.[26] (The reader will note that C agreeing with the possessor in (45)/(46) is also ruled out by the T/Agree Condition, given that the possessor in these Niger-Congo languages does not trigger agreement on T or on any other functional head. However, the fact that possessor control of SoK is blocked by the GOCS turns out to be the more fundamental fact, because a similar restriction holds in languages and constructions that are not subject to the T/Agree Condition, as we will see.)

An even more basic fact about C-agreement that is attributable to OC is that C cannot in general get its features from a discourse antecedent, rather than from an argument in the matrix clause. Most sources have taken this for granted until very recently. Two recent exceptions are Driemel & Kouneli's (in press) study of Kipsigis and Major et al.'s (2023) reappraisal of Lubukusu. Both works argue that the C-like head (*le* or *li*) agrees with a pro in its specifier—not with PRO or a null operator—and that it gets its antecedent by ordinary pronominal coreference rather than by some more restricted relationship such as OC. But four of their five examples designed to show this have the verb 'hear' in the matrix clause. For these, I think it is very plausible to say that SoK in the CP complement of 'hear' is controlled by a syntactically present but covert source argument of 'hear', given that we know that implicit arguments can function as controllers in many cases (see Landau (2013: §5.4) for a review). This leaves only one example unaccounted for (D&K's (38)) and the authors observe that not all speakers accept it. I put this example aside pending further study, and stick with the bulk of the evidence across languages that Agr-C can only agree with a suitable argument of the lexical item that the CP is the head of, in line with the GOCS.

We see, then, that the GOCS has a cluster of positive effects, explaining cases where upward C-agreement cannot happen.

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[26] Compare the literature on logophors and long-distance anaphors, which are sometimes said to be able to take the possessor rather than the subject as their antecedents in structures like (45)-(46). ((46) contains an instance of this).

Inasmuch as this condition is borrowed from the theory of control, this supports the hypothesis that obligatory control is involved in the upward C-agreement constructions.

3.3. Thematic conditions on the controller

The GOCS says that an SoK in a suitably positioned clause must be controlled by an argument of the verb that selects that clause but it does not determine which argument is the controller. The hypothesis is that that is determined by (33), which says that the argument that controls SoK is the one whose thematic role best matches that of SoK. My assumption, following Speas & Tenny (2003), is that SoK receives an agent-like thematic role from the Eval head. Therefore, the controller must also have an agent-like thematic role. This subsection explores this aspect of the control relation. More specifically, the controller of SoK must have one of the thematic roles listed in (47).

(47) The controller of a subject-like operator must have the thematic role of agent, causer, source, or experiencer.

I take this list to be a natural class of thematic roles. Indeed, they are roughly those roles that can be assigned to an external argument in Spec VoiceP (although they are not always assigned there).

The initial motivation for (33)/(47) is the fact that upward C-agreement is always agreement with the agent-subject of the matrix verb, not with the theme or goal object of the matrix verb, as we have seen throughout. This basic distinction can, however, be characterized in a variety of ways. Instead of focusing on thematic roles, one could focus on syntactic position, or on which argument T agrees with, and so on. Help in distinguishing these possibilities comes from passive constructions in languages that have them: the Bantu languages Kinande, Lubukusu, and Ikalanga. The passive agent is still of course an agent; it may even be licensed in Spec VoiceP position (as, for example, in Collins's (2005) theory of the passive). In contrast, the derived subject still has a theme or goal role, on standard assumptions. The prediction of (33)/(47), then, is that passivization should not feed upward C-agreement.

This prediction is supported in Kinande. This language indeed does not allow the passive subject to control C-agreement; rather C must be the nonagreeing form *ambu*, or in some cases *ngoko*. This was first reported by Letsholo & Safir (2019: 18), using the verb 'remind'. (48)

gives further examples using other triadic verb roots.

(48) Kinande (fieldwork; Philip Mutaka)
    *a. Aba-kali ba-bya ba-biri-bw-ir-wa **ngoko/*ba-ti/(*ba-ti) ambu** Marya mw-a-gul-ire ehi-lole.*
    CL2-women CL2-be CL2.S-TNS.ASP-tell-APPL-PASS that/*CL2-C/(*CL2-C) they.say CL1.Mary AFF-CL1.S-bought-ASP CL19-bananas
    "The women were told that Mary bought bananas."

    b. Kambale a-lir-ir-awa ambu/*a-ti a-mbaly' emaske.
    CL1.Kambale CL1.S-beg-APPL-PASS they.say/*CL1-C CL1.S-wear mask
    "Kambale was begged that he wear a mask."

Similarly, Letsholo & Safir (2019: 7) say that when a verb taking a clausal complement is passivized in Ikalanga, the form of the complementizer is (usually[27]) a nonagreeing one like *kuti* or *kuyi*.

Here again, we can learn more by attending to the fact that in Kinande a verb like 'force' requires Agr-C in its subjunctive CP complement, for semantic selectional reasons (see (8)). However, even 'force' cannot have an agreeing C in the passive, as shown in (49).

(49) Kinande (fieldwork, Philip Mutaka)
    *Mo-n-a-kas-irwe   **ambu/*in-di**   nyi-gend-e.*
    AFF-1SG.S-TNS-force-PASS.ASP they.say/*1SG-C 1SG.S-go-SBJV
    "I was forced to go."

The requirement that 'force' must select EvalP with an SoK specifier should apply to the passive as well as the active, all things being equal. This implies that SoK is present in (49), but it is controlled by the covert agent, not by the derived subject. It is, after all, the implicit agent who is responsible for the content of the CP complement. However, C cannot manifest agreement with SoK because T does not agree with the controller of SoK—another case of the T/Agree Condition at work. This converges with the evidence from causatives

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[27]
    However, Letsholo & Safir add that some speakers (older ones, they suspect) allow a form of C in which C agrees with the derived subject as well. They do not discuss what happens when a *by*-phrase is present in an Ikalanga passive. See also Letsholo & Safir (2018) for discussion of what looks like a form of voice agreement in Ikalanga—a fascinating topic that I do not consider here.

in (40)-(43) above. The passive agent is like the causee in being able to control SoK, but not being able to trigger agreement on the Eval head. This further motivates T/Agree Condition given in (35b), formulated as a condition on agreement with SoK rather than on the control of SoK. The conclusion that a passive agent can control a ghostly operator in the CP complement will be confirmed in subsequent chapters, when we consider constructions that are not subject to the T/Agree Condition.

Lubukusu presents a variant on this interaction between passive and C agreement, according to Diercks (2013). When a passive sentence has an overt *by*-phrase, Agr-C in the complement of the verb is impossible, as shown in (50). Agr-C cannot agree with the agent in the *by*-phrase, resulting in *n-di*; this would satisfy thematic matching in (33) but violates the T/Agree Condition. Nor can Agr-C agree with the goal in subject position, resulting in *a-li*; this is because that NP does not have the right thematic role, according to (33)/(47).

(50) Lubukusu (Diercks 2013: 380 (61); see also 367-368 (25))
    Nelson ka-a-bol-el-wa nende ese mbo/*n-di/*a-li ba-keni ba-a-cha.
    CL1.Nelson CL1.S-TNS-say-APPL-PASS by me that/*1SG-C/*CL1-C CL2-guests CL2.S-TNS-go
    "Nelson was told by me that the guests left."

Diercks (2013: 380) also reports that in a significant number of cases, his consultants rejected C-agreement with the passive subject in an example like (51), where there is no overt *by*-phrase. He says: "On several occasions, however, speakers explicitly referred to the implicit agent in a passive as the reason why they did not accept the complementizer agreement."

(51) Lubukusu (Diercks 2013: 380)
    Alfredi ka-a-bol-el-wa mbo/%a-li sy-akhulia si-li tiyari.
    CL1.Alfred CL1.S-PST-say-APPL-PASS that/% CL1-C CL7-food CL7.S-be ready
    "Alfred was told that the food was ready."

So far this is like Kinande and fits my theoretical generalizations in (33) and (35). The plot twist is that Diercks says that in short passives with no *by*-phrase there were also "a large number of times that complementizer agreement with derived subjects of passives was deemed acceptable. … Whereas several speakers readily accepted this

example [(51) with C=*a-li*], others strongly opposed the agreeing complementizer here, stating that since 'Alfred was told' something, somebody had to have told him, and as such the class 1 *a-li* agreement from was unacceptable." My interpretation of this complexity comes in two parts. First, I follow Diercks (2013: 381) in saying that there is some indeterminacy as to whether a covert agent is present in a short passive construction in Lubukusu. (Compare Baker & Vinokurova (2010), who make the same assumption for Sakha passives to explain why the theme argument is sometimes nominative and sometimes accusative). Second, I assume that whether an agent is present or not can influence the thematic interpretation of its coargument with a verb like 'tell'. This is expressed in (52).

(52) The goal argument of a verb can count as an experiencer as well as a goal, but only if there is no agent argument in the same clause.

I take (52) to be a principle of the theory of thematic roles, on a par with other plausible statements about what thematic roles can be associated with particular verbs such as "no verb can have an instrument argument without having an agent argument", and "no simple (noncausative) verb can have a causer argument distinct from its agent argument." Such statements are plausibly rooted in how we humans conceptualize events and package them for expression in clauses headed by simple verbs. Now active sentences, long passives, and short passives with implicit agents clearly all have syntactically expressed agents, so a goal argument in the same clause must be a pure goal, not an experiencer-goal. As a result, the goal argument cannot control SoK, by (47). In contrast, short passives with no syntactically present agent do allow the goal argument to take on the experiencer role. In that special case, C-agreement with the subject of a passive in a sentence like (51) can be acceptable in Lubukusu (and perhaps for some Ikalanga speakers; see fn. 27). (52) may seem a bit ad hoc, but both it and its converse will do a fair amount of work for us in other constructions as well. I return to it and put it in a broader theoretical context in §3.4.2.

These observations about thematic factors in the control of SoK can be replicated by considering the behavior of verbs like 'hear' with respect to C-agreement. A sentence of the form 'X heard (from Y) that Z' is thematically very similar to the passive 'X was told (by Y) that Z.' However, 'hear' is not morphologically a passive verb, and even

languages that do not have a productive passive construction can have 'hear'. Kinande, Ibibio, Lubukusu, and Kipsigis all allow the subject of 'hear' to control C-agreement on the complement of 'hear'; only Ikalanga where C-agreement is lexically restricted apparently does not. Examples are given in (53).

  (53)   Selected African languages
           a. Kinande (fieldwork, Philip Mutaka)
           Kambale mw-ow-ire a-ti ambu Marya mw-a-gul-ire ehilole.
           CL1.Kambale AFF- CL1.S.hear-ASP CL1-C they.say
           CL1.Mary AFF-CL1.S-buy-ASP bananas
           "Kambale heard that Mary bought bananas."

           b. Ibibio (fieldwork, Willie Willie)
           Okon a-maa-kop (a-bo / a-te) ke Emem a-maa-due.
           Okon 3SG-PST-hear 3SG-C/3SG-C that Emem 3SG-PST-sin
           "Okon heard that Emem is guilty."

           c. Kipsigis (Diercks & Rao 2019)
           Ko-a-ɣas   %a-lɛ/kɔlɛ   ko-Ø-ɪt   laɣok.
           PST-1SG-hear %1SG-C/that PST-3.S-arrive children
           "I heard that the children arrived."

Such sentences have no agent, overt or covert, so the hearer subject is freely and naturally taken to be an experiencer.[28] As such, it can control SoK, in accordance with (33) and (47).

Much like the ambivalent behavior of short passives in Lubukusu, we see some crosslinguistic variation with 'hear' when a source phrase is included. In Lubukusu and Ibibio, this does not interfere with C-agreement, which is still possible with the hearer-subject.

  (54) Lubukusu (Diercks 2013:366)
          *Khw-a-ulila **khukhwama** khu Sammy **khu-li/*a-li** ba-*

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[28]
    Possible evidence that the subject of 'hear' is an experiencer in English is the deviance of #*Mary heard that John loved her while she was in a coma*. Contrast this with *John told Mary that he loved her while she was in a coma*, where Mary cannot be an experiencer according to (52). Intermediate is the passive version: *?Mary was told that John loves her while she was in a coma.*

limi ba-a-funa kama-indi.
1PL.S-TNS-hear from LOC CL1.Sammy 1PL-C/*CL1-C
CL2-farmers CL2.S-TNS-harvest CL6-maize
"We heard from Sammy that the farmers harvested maize."

(55) Ibibio (fieldwork, Willie Willie)
*M-ma-ng-kop n-to Koko **m-bo/*a-bo** ke Ima a-maa-yip ngwet.*
1SG-PST-1SG-hear 1SG-from Koko 1SG-C /*3SG-C that
Ima 3SG-PST-steal book
"I heard from Koko that Ima stole a book."

However, in Kinande and Diercks & Rao's (2019) variety of Kipsigis, including a source phrase with 'hear' in the main clause makes it impossible for the hearer-subject to control C agreement in the CP complement.

(56) Kinande (fieldwork, Philip Mutaka)
*Kambale owir-**ira** oko-ba-kali ***a-ti/*ba-ti** (ambu) Marya a-hol-ire.*
CL1.Kambale CL1.S.hear-APPL LOC-CL2-women *CL1-C/*CL2-C they.say CL1.Mary CL1.S-die-ASP
"Kambale heard from the women that Mary died." (OK with C=*ko*, cliticized to the verb)

(57) Kipsigis (Diercks & Rao 2019)
Ko-a-ɣas kobun Kiproono kɔlɛ/*a-lɛ ko-Ø-ɾuuja tuɣa amut.
PST-1SG-hear through Kiproono that/*1SG-C PST-3SG-sleep cows yesterday
"I heard through Kiproono that the cows slept yesterday."

Thus there can be interference between a source phrase and C agreeing with the experiencer subject, similar to what we find with long passives, but there is not always such interference. I suggest that this variabity can be attributed to two factors: (i) whether the source phrase counts as an argument of 'hear' or not, and (ii) whether the source of 'hear' is taken to be equivalent to the agent of 'tell' or not. If both of these factors hold, then the presence of the source phrase prevents the subject of 'hear' from being an experiencer by (52), which in turn prevents it from controlling SoK, by (47). If either of these factors does not hold—if the source phrase is not taken to be (equivalent to) an agent argument of 'hear'—then (52) does not prevent the subject of 'hear' from counting as an experiencer, and it can control SoK, just as it does in (53). The relevance of whether the

source phrase counts as an argument is suggested by the contrast between (56) in Kinande and (54) in Lubukusu. In the Kinande example, 'hear' is an applicative verb, implying that the source phrase counts as an argument of this extended predicate. In contrast, 'hear' in the Lubukusu example is not applicative and the source phrase comes with a robust preposition as well as locative gender marking. These differences in the syntactic status of the source may correlate with the fact that the source interferes with C-agreement in Kinande but not in Lubukusu. However, I do not have good independent tests for whether a source PP counts as an argument or not across languages. There is need then for closer study of the particular languages in the hopes of tightening the screws on this aspect of the analysis.[29] Note also that passive *by*-phrases and *from*-phrases interfere with C-agreement with a goal/experiencer subject in similar ways but to different degrees. Overt *by*-phrases always interfere, whereas covert ones sometimes do; in contrast, overt *from*-phrases sometimes interfere, whereas covert (absent) ones never do. The two cases are similar but not identical.

The door is also open to say that the source-phrases of 'hear' can control SoK, satisfying semantic-selectional properties. However, they do not allow C to agree with the SoK that they control, because of the T/Agree Condition. In this respect, (some) source phrases associated with 'hear' would have the same status as the *by*-phrases of passive sentences and the causees of morphological causatives in Kinande. Again, we will see support for this in future chapters, where source arguments associated with verbs of hearing can control ghostly DPs in constructions that are not subject to the T/Agree Condition.[30]

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[29] Source phrases are unusual in Ibibio in that the P-like element *to* bears agreement with the subject. This is apparently some kind of grammaticalized serial verb construction. Although I do not know what the structure of this special kind of serial verb construction is, it is possible that agreement on 'from' is a cue to language learners that the source phrase is not agent-like in Ibibio. Driemel & Kouneli (in press) show that both source phrases that are PPs and those that are applied arguments can trigger agreement on the C-like head le in Kipsigis. This may not support the conjecture in the text.

[30] Indeed, Driemel & Kouneli (in press) report that Agr-C (which they analyze as the verb 'say') can agree with the source phrase or the hearer in the dialect of Kipsigis they report on. This fits with the fact that there is independent evidence from psych verbs (see (86)) and C agreement with objects that the T/Agree Condition does not hold in Kipsigis. This is discussed in §2.4. Similarly, Major

We have seen that agents and experiencers can control SoK and hints that sources might as well, whereas pure goals and themes cannot control SoK. I include causers as possible SoK-controllers in (47) as well to cover the fact that inanimate subjects of verbs like 'show' and 'tell' can trigger upward C-agreement in languages where the selectional restrictions that Eval puts on SoK are less strict. Two examples are given in (58) and (59).

(58) Kinande (fieldwork, Philip Mutaka)

Emi-haruro y'-oko-mesa yi-ka-by-a nga yi-ka-tu-bw-ir-a yi-ti Kambale a-na-bya hano.

CL14-marks CL14.ASS-LOC-table CL14.S-TNS-be how CL14-TNS-1PL.O-say-APPL-FV CL14-C CL1.Kambale CL1-PST-be here

"The marks on the table (are as if they) tell us that Kambale was here."

(59) Ibibio (fieldwork, Willie Willie)

Ifiọk-nduuñọ a-wʌt (a-bo/a-te) ke Okon a-due.

evidence 3SG.S-show (3SG-C/3SG-C) that Okon 3SG-sin

"The evidence shows that Okon is guilty."

If one prefers to make only course-grained role distinctions, one might well collapse this case with the case of agents controlling SoK. However, future chapters will give us some reason to distinguish causers and agents, in that an inanimate causer subject does not prevent the direct object from counting as an experiencer the way that agentive subjects do. Causers are thus distinct from agents for the purposes of (52). For SoK, the effects of this are mostly concealed by the T/Agree Condition: even if the object of 'show' in (58) could count as an experiencer, it still could not trigger agreement on C via SoK because it does not trigger agreement on T. But experiencer objects can control ghostly DP operators in other languages.

Finally, the fact that experiencer arguments can control SoK, as allowed by (47), can be seen to some degree apart from verbs like 'hear' and 'tell-PASS', as long as the experiencer is a surface subject. However, to see this, one needs to be able to navigate around the anti-factivity associated with C-agreement, discussed in §2.2. Torrence (2016) observes that an experiencer object in Ibibio cannot control C-

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et *al*. (2023 (24)) report that Sikuku's Lubukusu also allows C-agreement with the source argument of 'hear'. The overall status of the T/Agree Condition in his lect should thus be investigated further.

agreement, even when the subject is an idiomatic nominal, such that the experiencer object is the thematically highest-ranked DP in the matrix clause. Such experiencers can take on some subject-like properties, including controlling a logophoric operator in the CP complement (see Chapter 5), as in (69).

(60) Ibibio (fieldwork, Willie Willie)
    Esɪt a-nem   Okon ke Emem á-maá ímọ̀.
    heart 3SG-sweet Okon that Emem 3SG-like LOG
    "Okon_i is happy that Emem likes him_i."

Nevertheless, such experiencer-objects are strongly out as a trigger of agreement on C/Eval. Thus, (61a) is impossible. However, (61b) is somewhat better, where the experiencer argument rather than the body part idiom has moved to the subject position, as is often possible in Ibibio. (Presumably both 'heart' and 'I' are projected inside the VP headed by the unaccusative verb 'be sweet' and either one can move to Spec TP). Even in (61b), C-agreement with the experiencer is rather marginal; this is presumably because 'be happy that' needs to be coerced to take a nonfactive complement in order to make Eval and SoK semantically compatible with it. Despite this factor, a contrast is clearly evident to Torrence's consultants and mine.

(61) Ibibio (Torrence 2016)
    a. *Esɪt u-nem (*à-bo/*a-te) ke Ima a-maa-tem adesi.*
    heart 3SG.S.2SG.O-be.sweet *2SG-C/*2SG-C that Ima 3SG-
    PST-cook rice
    "You are happy (lit. the heart sweets you) that Ima cooked rice."

    b. *Àmì ḿ-mé-nèm-ésɪt (??m-bo/??n-te) ké áfítówó é-yà-é-diọ́ñọ́ ákpáníkọ́.*
    I 1SG.S-PERF-sweet-heart ??1SG-C/??1SG-C that
    everybody 3PL-FUT-3PL-know truth
    "I am happy (lit' I am heart-sweetened) that everybody will know the truth."

One implication of this is that we want to include experiencer arguments on the list of possible controllers of SoK in principle, even if in practice many cases are degraded due to the semantic consequences associated with having Eval and SoK present.[31] This also gives us another eloquent testimony to the

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[31]
  Indeed, Driemel and Kouneli (in press: 10 (14)) show that in their dialect of

importance of the T/Agree Condition on upward C-agreement, since almost the only difference between (61a) and (61b) is that the experiencer triggers agreement on T in (61b) but not in (61a).

This completes the exploration of the thematic factors that influence which argument of a matrix verb controls SoK in the CP complement of that verb. We have seen that only arguments with a "subject-like" thematic role can be the controller: agents, causers, sources, and experiencers. We have also seen robust and varied evidence for the T/Agree Condition.

3.4. Structural conditions on the controlled-into clause

Having considered in some detail the conditions on what can be the obligatory controller of SoK, let us now move to the other side of the relation: where SoK needs to be to be controlled. Landau's (2013) OCS has implications for this as well, saying that it is clauses that are "dependents of S" whose PRO subjects undergo obligatory control. PRO in clauses in other positions is either impossible or undergoes a distinct, not syntactically constrained, form of nonobligatory control. Building on previous literature—especially Manzini (1983) and Landau (2001)—Landau distinguishes between CP complements on the one hand, and CP subjects and extraposed clauses on the other hand. My version of the GOCS ((32)) is that OC is required for controllable null DPs at the edge of clauses that are generated inside VP—complement clauses or low adjunct clauses. In this subsection, I consider this aspect of the syntactic constraints on OC as it applies to SoK in the upward C-agreement constructions.

In fact, there has not been much explicit literature on this topic. It has been taken for granted that upward C-agreement happens in complement clauses. The implication is that it does not happen (or not much) in other kinds of clauses, but little data has been explicitly presented about this. Therefore, Ibibio figures very prominently in this discussion. One reason for this is simply that I have been able to collect data from this language. The other is that Ibibio is special in that it stacks an agreeing C on top of other Cs, rather than using an

Kipsigis, which does not obey the T/Agree Condition, Agr-C (if that is what it is) can agree with the experiencer object of 'forget'. (Note that this verb is unlikely to be semantically compatible with a true verb meaning 'say'.)

agreeing C rather than a nonagreeing one. Therefore, if most Cs in complement clauses allow an Agr-C to occur with them, whereas most Cs in noncomplement clauses do not, that becomes syntactically significant. Then there is a syntactic generalization that goes beyond simply saying that (say) relative clauses happen to have this particular C and this C happens not to license SoK or probe for phi-features as an idiosyncratic lexical property. The upshot of the investigation will be that C-agreement is ruled out outside of contexts of OC, complement clauses and a subclass of adjunct clauses. I claim that this follows from the GOCS in (32) together with the assumption in (62).

   (62) SoK must undergo obligatory control (it cannot undergo NOC).

In future chapters, (62) will be derived from the fact that SoK has no intrinsic semantically interpretable features. Therefore, it must get such features via a syntactic process by the time that the relevant phase undergoes Spell Out. OC is the syntactic process that can give it the features that it needs.

Consider first the possibility of CP subjects. Landau (2001) identifies this as a context of NOC, rather than OC in English.[32] My generalizations then expect that C-agreement should be impossible in CP subjects, wherever those are allowed. This is true. Some of the African languages do not permit bare CPs in the subject position; my sources for Kinande and Ibibio are only comfortable with sentential subjects if they are merged with a "carrier noun" which has its own argument structure, such as 'the fact that …' or 'the news that…' (see below). Subjects headed by Agr-C are also bad in Kipsigis (Driemel & Kouneli in press: (28). But Ikalanga and Lubukusu do allow CPs in subject position, and even they do not allow C-agreement, as shown in (63) and (64). Note that for Ikalanga the active version of 'agree' does allow Agr-C in its internal argument, but the passive version does not.

   (63) Ikalanga (Letsholo & Safir 2019: 16 (23)).
                a. *Neo w-aka-duma (a)-ka-ti Nchidzi w-aka-tenga lori.*
                CL1.Neo CL1.S-PST2-agree CL1-PST-C CL1.Nchidzi CL1.S-PST2-buy car

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[32] Landau (2001: 125) does not entirely rule out OC in CP subjects, however, to the extent that phrases A-moved to Spec TP can reconstruct into the vP domain. He takes this to be marked, but not impossible.

"Neo agreed that Nchidzi had bought a car."

　　b. ***Kuti*** *ba-thu ba-njinji a-ba-to-thoph-a kw-aka-dumi-gw-ana.*
　　that CL2-people CL2-many NEG-CL2.S-NEG-vote CL17-
　　PST2-agree-PASS-RECP
　　"That many people don't vote was agreed on."

(64) Lubukusu (fieldwork, Justin Sikuku).
　　Bali/?mbo/*a-li *Wafula a-a-cha ly-a-siim-isya Wekesa.*
　　that/?that/CL1-C CL1.Wafula CL1.S-TNS-go CL5.S-TNS-
　　like-CAUS CL1.Wekesa
　　"That Wafula left pleased Wekesa."

One might think that the agreeing Cs here are bad simply because there is no NP for the C to agree with. But if it were possible for SoK in Spec EvalP to undergo NOC, such examples could be possible. SoK could potentially get an arbitrary/generic interpretation, triggering default agreement on C, or it could get an antecedent in discourse. In the case of (64), SoK could potentially be controlled by the psych object *Wekesa* (pace the T/Agree Condition). Such possibilities are attested for NOC PRO. The fact that they are not attested here is a testimony to the GOCS in combination with (62).

Consider next the possibility of Agr-C in adjunct clauses. Certain kinds of adjunct clauses are another canonical environment of NOC rather than OC according to Landau (2013: 231-233, etc.)—especially high adjunct clauses that appear before the main clause, or that appear after the main clause set off by an intonation break. At the same time, low adjunct clauses often require OC; see Landau (2021) for extensive discussion. Against this background, (62) leads us to expect that some adjunct clauses in the African languages might allow upward C-agreement, whereas other types will not allow it. As a broad-brush expectation, this is borne out. Deircks (2013: 403) shows that Agr-C is not possible in 'because' clauses and conditional clauses in Lubukusu; see also Major et *al*. (2023).

(65) Lubukusu (Diercks 2013: 403)
　　*Mikaeli a-likho a-cha sikilia **mbo/bali/*a-li** a-likho e-*
　　elekesia Tegani.
　　CL1.Michael CL1.S-PROG CL1.S-go because that/that/
　　CL1-C CL1.S-PROG CL1.S-escort CL1.Tegan
　　"Michael is leaving because he is escorting Tegan."

However, Justin Sikuku provides the example in (66), where an Agr-C occurs along with a second C-like element in a purpose clause; Major et al. (2023: (13)) give a similar example.[33]

(66) Lubukusu (fieldwork, Justin Sikuku)
      Wekesa a-pa baba-ana a-li ne ba-kesiy-e.
      CL1.Wekesa CL1.S-hit CL2-children CL1-C so.that CL2.S-be.clever-SBJV
      "Wekesa hit the children so that they would be clever."

See also Kawasha (2007: 189 (14b)) for a purposive example with Agr-C in the Zambian/Angolan language Lunda. The same distinction between CP adjuncts that allow Agr-C and ones that do not is found in Ibibio. Here too, Agr-C is possible with a purposive clause, as in (67).

(67) Ibibio (fieldwork, Willie Willie)
      Okon á-ke-dát íbǫ́k ódó (a-bo / a-te) m̀bàak (imo) i-dí-dǫ́ñǫ́.
      Okon 3SG-PST-take medicine the 3SG-C/3SG-C so.that
      LOG 3.LOG-prohibit-be.sick
      "Okon took the medicine so that he would not get sick."

In contrast, other types of adjunct clause do not allow an Agr-C to be generated on top of the other complementizing elements in Ibibio. For example, 'because' clauses headed by *sia* never occur with an Agr-C.

(68) Ibibio (fieldwork, Willie Willie)
      *Nnyin i-m-i-yat esit (*i-bo/*i-te) sia Okon a-maa-yip ebot odo.*
      we 1PL-PERF-1PL-hot heart *1PL-C/*1PL-C because Okon
      3SG-PST-steal goat the
      "We are upset/angry because Okon stole the goat."

Similarly, none of my examples have Agr-C along with *ke ini* 'when' (lit. 'at time') or *akpedo* 'if' in Ibibio. So adjunct clauses do vary in

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[33]
   Sikuku also allows Agr-C in an example along with the word *khubele*, glossed as 'because'. I do not know if there is a semantic difference between this and *sikilia* 'because' in (65) that accounts for this difference or not.

(i)   <u>Wekesa</u>   a-pa   baba-ana   <u>a</u>-li   khubele ba-nywa kama-beele.
         CL1.Wekesa CL1.S-hit CL2-children CL1-C because CL2.S-drank CL6-milk
         "Wekesa hit the children because they drank the milk."

their tolerance of upward C-agreement, as predicted.

I also have a little evidence that there is a structural-syntactic component to this difference in Ibibio, in that there seems to be a correlated difference in island behavior. Purpose clauses, which allow Agr-C, are like CP complements in allowing the extraction of a focused *wh*-word. In contrast, 'because' and 'when' clauses, which do not allow Agr-C, are islands for such extraction, as shown in (69).

(69) Ibibio (fieldwork, Willie Willie)

        a. *Anie ke Okon a-di-ka Lagos mbaak anye a-di-kit?*
        who FOC Okon 3SG-FUT-go Lagos so.that 3SG 3SG-FUT-see
        "Who will Okon go to Lagos so that he will see?"

        b. *?*Anie ke Okon a-ke-ka Lagos sia anye a-ke-yem adi-kit?*
        who FOC Okon 3SG-PST-go Lagos because 3SG 3SG-PST-want INF-see
        ("Who did Okon go to Lagos because he wanted to see?")

        c. *?*Anie ke Okon a-ke-bọọñ-mkpo ke ini anye a-ke-kit-te ke urua?*
        who FOC Okon 3SG-PST-shout LOC time 3SG 3SG-PST-see-REL LOC market
        ("Who did Okon call out when he saw in the market?")

This suggests that there is a structural difference between the two kinds of adjuncts. Another correlated difference is that logophoric pronouns are licensed in 'so that' clauses in Ibibio, but not in 'because' clauses or 'when' clauses (see Chapter 5 for discussion). From a broader perspective, Landau (2021) uses classic VP-structure tests to show that control behavior is correlated with syntactic position for adjunct clauses in English: adjunct clauses inside VP require obligatory control (unless other factors intervene[34]), whereas adjunct

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[34] One exception is that low adjuncts that have a null operator and are predicated of the object are attached to VP even though they allow NOC of their PRO subject, because attaching them higher would be incompatible with the predication. A more serious mismatch between what I assume here and Landau (2021) is that he claims that high adjuncts in English allow OC as well as NOC. A large part of his reason for assuming this is because PRO in a high adjunct can have an inanimate controller, which he takes to be indicative of OC (although he acknowledges that topical inanimates can sometimes be NOC controllers). To

clauses outside VP always allow nonobligatory control. Therefore I tentatively assume that adjunct clauses that allow Agr-C in the African languages are generated lower, inside or just above VP, whereas adjunct clauses that systematically do not allow Agr-C are generated higher, outside VP and adjoined to TP. Therefore, my version of the GOCS in (32) distinguishes clauses that are inside VP from clauses that are outside VP. The former group includes CP complements and 'so that' adjuncts; the latter group includes CP subjects as well as 'because', 'when' and 'if' adjuncts. CPs that are outside VP do not allow an SoK at their edge to undergo OC, so they cannot have SoK by (62). As a result, they cannot have Agr-C, since C has nothing to agree with nearby. However, this formulation is tentative pending better tests for VP-structure in the African languages, and I am open to alternative ways of distinguishing the types of adjunct clauses.

Consider next relative clauses. Although Landau says little about control in infinitival relatives, these are generated inside a nominal projection, not inside VP. As such, they are not subject to OC according to the (G)OCS. Indeed, the PRO subjects of infinitival relatives in English do not need to be locally controlled, as in (70).

(70) Sharon$_i$ thinks that on the table there is [a good book [PRO$_{i,arb}$ to read to herself$_i$/oneself at bed time]].

Given this, the expectation of the GOCS plus (62) is that upward C-agreement should be impossible in relative clauses. This is true for Ibibio, as shown in (71). Neither Agr-C can be added on top of the relative complementizer *se*, whereas they can be added above the Cs that head CP complements (*ke*, *mme*, *yak*).

(71) Ibibio (fieldwork, Willie Willie)
      Okon a-sʌk a-yem ngwet (*a-bo/*a-te) se ng-k-i-nọ imọ.
      Okon 3SG-PROG 3SG-seek book (*3SG-C/*3SG-C) REL
      1SG-PST-1SG-give LOG
      "Okon is looking for the book that I gave him."

Nor has agreeing C been attested in relative clauses in any of the other

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keep to the simple view adopted in the text, I must assume that inanimates can be NOC controllers rather freely in the right contexts.

languages, although this has not been explicitly considered very often.

The last case I consider is the very interesting one of CP complements to nouns, such as *Peter heard [the news [that Sue will visit soon]]*. Like relative clauses, these are generated inside NP/DP, not VP. Therefore, we might expect them not to be contexts of obligatory control given the GOCS. Nevertheless, Diercks (2013: 378, 393) observes that in Lubukusu when this sort of [N+CP] constituent is the object of a verb (or even of a preposition), C agreeing upward with the subject of the verb is possible. One of his examples is in (72).

(72) Lubukusu (Diercks 2013: 378 (53))
      N-a-ulila li-khuwa n-di Sammy ka-a-kula li-tunda.
      1SG.S-PST-hear CL5-word 1SG-C CL1.Sammy CL1.S-PST-buy CL5-fruit
      "I heard the rumor that Sammy bought the fruit."

Letsholo & Safir (2019) mention in passing that this is also possible in Ikalanga and one of Diercks & Rao's (2019: 376 (13)) two Kipsigis speakers allows it. This construction is also possible in Ibibio:[35]

(73) Ibibio (fieldwork, Willie Willie)
      a. **Emem** *a-maa-dǫkkǫ Ekpe mbʌk* **a-bo** *ke Okon a-maa-due.*
      Emem 3SG-PST-tell Ekpe news 3SG-C that Okon 3SG-PST-guilty
      "Emem told Ekpe the news that Okon was guilty."

      b. **Nditǫ** *e-ma-e-n-dǫkkǫ e-baña údúak Okon* **e-bo** *ke Emem a-ya n-nwam.*
      children 3PL-PST-3PL-1SG.O-tell 3PL-about plan Okon 3PL-C that Emem 3SG-FUT-1SG.O-help
      "The children told me about Okon's plan that Emem will help me."

We can show that these N+CP sequences count as an NP constituent using focus fronting.[36] (74a) shows that it is possible to move the

[35]
  Kinande does not seem to allow CP as the complement of N. The closest it has is a periphrasic construction like 'Kambale announced news of saying that Mary will go', where the CP is the complement of 'say' not 'news'.

[36]
  Similar evidence from Lubukusu passive and focus movement shows that the CP

N+CP to the front of the clause as a unit, whereas (74b) shows that 'news' cannot be fronted by itself, stranding the CP.[37]

(74) Ibibio (fieldwork, Willie Willie)

    a. *[Mbʌk ke Okon a-ke-due] ke Emem a-ke-dǫkkǫ Ima.*
    news that Okon 3SG-PST-guilty FOC Emem 3SG-PST-tell Ima
    "It's the news that Okon was guilty that Emen told Ima."

    b. **Mbʌk ke Emem a-ke-dǫkkǫ Ima - [ke Okon a-maa-due].*
    news FOC Emem 3SG-PST-tell Ima that Okon 3SG-PST-guilty
    (literally: 'It's the news that Emem told Ima that Okon was guilty.')

These examples are of theoretical interest in that they are quite problematic for a direct Agree account, as Letsholo & Safir acknowledge. Carstens (2016: 30-31) has a brief discussion in which she claims that direct agreement is possible as long as D is not present as a phase head in Lubukusu. I think that the bulk of evidence is that Ds are normally phase heads across languages, but it may be that these special "carrier nouns" do not necessarily come with D heads. However, an example like (73a), in which the [N+CP] constituent is the second object of a ditransitive verb like 'tell', poses additional problems for Carstens's direct Agree hypothesis. Carstens allows the C head to agree with the subject in Spec VoiceP either in situ, from its base position (probing predictably upward), or by moving covertly to an outer Spec VoiceP and probing downward. Neither option works well for (73a). If C probes upward from its base position, the goal argument should count as a defective intervener, blocking C from agreeing with the more remote subject. (The goal itself cannot agree with C because it receives inherent case from an applicative head, according to Carstens.) This is thus the sort of structure that requires movement to Spec VoiceP within Carstens's system. But in this case
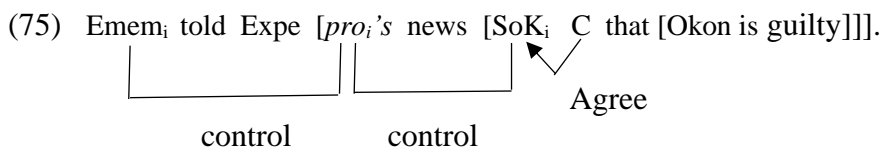
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may be parsed as a constituent of NP (Sikuku p.c. April 2020). This goes against Major et al.'s (2023) claim that *a-li* phrases are VP-modifiers rather than N (or V) complements in Lubukusu. However, Sikuku also accepted the N(P) moving by itself, stranding the CP (cf. (74b)), so both structures might be possible.

[37] For Ibibio, C-agreement inside the fronted [N-CP] in an example like (74a) was deemed impossible (**mbʌk **a-bo** ke Okon…* 'news CL1-C that Okon…'). This is an issue for the theory of connectivity, since it is not clear why reconstruction couldn't make the control of SoK by *Emem* possible. The analogous Lubukusu example was degraded (??) but not impossible.

what would move to Spec VoiceP is presumably not just CP but the larger [$_{NP}$ N+CP] constituent. Then the C embedded inside this larger NP constituent does not c-command the subject in the inner Spec VoiceP, such that it could find the subject by probing downward. There is, then, no direct agreement account of this kind of example.

Examples like (72) and (73) pose a challenge for my account too. It seems that the subject of 'tell' in (73b) cannot control SoK inside the CP complement of 'news' because it is not a coargument of that CP. The solution to this problem, I suggest, is to say that SoK in these examples is really controlled by a null argument of 'news'. Recall that I stated the GOCS in (32) in category-neutral terms, such that an empty category in the periphery of the CP complement of a noun can be controlled by an argument of the noun, just as an empty category in the CP complement of a verb can be controlled by an argument of that verb.[38] Then the matrix subject can control the null argument of 'news' (consistent with the GOCS), giving the appearance that the subject controls SoK directly. This gives (75) as the analysis of (73b).

(75)   Emem$_i$ told Expe [*pro$_i$'s* news [SoK$_i$ C that [Okon is guilty]]].

control   control   Agree

This structure is also compatible with the T/Agree Condition, as long as we take "controller of" to be a transitive property. Then *Emem* is a controller of SoK (by way of controlling *pro*), and T agrees with *Emem*, so C can manifest agreement with SoK in (75).

This analysis is supported by what happens in Lubukusu when the head noun in this [N+CP] construction has an overt possessor argument. Diercks (2013: 378) observes that if the noun with a CP complement has a distinct possessor, it blocks agreement between the

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[38] Note that the GOCS allows an argument of the noun to control SoK at the edge of the CP regardless of whether CP is merged with the noun itself as its complement or with the larger NP as a low adjunct. See Moulton (2015) for the claim that so-called noun-complement clauses are really predicates that modify the NP, a view that I could adopt. In contrast, relative clauses plausibly do not merge with NP but to some higher projection such as DP. This is one way to ensure that a covert argument of the noun head cannot control into a relative clause the way that it can into a (putative) noun complement clause (see (71)).

matrix subject and the C of CP within the NP. Thus, in (76) the presence of the possessor 'Alfred' makes it impossible for the C head of the complement of 'certainty' to agree with the matrix subject 'I'.

(76) Lubukusu (Diercks 2013: 378 (56))

> *M-bona bu-ng'ali bw-a Alfredi mbo/*ndi/*a-li ba-ba-ana b-ewa ba-kha-khile.*
> 1SG.S-PRS.see CL14-certainty CL14-ASS CL1.Alfred that/*1SG.C/*CL1-C CL2-children CL2-his CL2.S-FUT-win
> "I see Alfred's certainty that his children will win."

Deircks & Rao (2019: 376 (14)) also document this effect in Kipsigis. This makes good sense given the analysis sketched in (75). The subject of 'see' does not control the possessor of 'certainty' in (76); rather, they are realized by distinct overt NPs, which are not coreferential. Therefore, the subject of 'see' does not control SoK in the CP complement of the noun indirectly in this case. Meanwhile, the GOCS explains why the subject of 'see' cannot control SoK in the CP complement directly either: 'I' here is not an argument of the head 'certainty' that CP is a complement of. (76) thus brings out the intrinsic locality of obligatory control which is concealed in (72) and (73) by the possibility of a null possessor. Indeed, we can observe parallel dynamics with the control of PRO in English. In (77a), the subject of the main verb seems to control PRO nonlocally in the infinitival complement of its direct object, but (77b) shows that this control is disrupted by having a distinct possessor inside the direct object—a possessor that can itself control PRO inside the infinitive. ((77c) also justifies stating the GOCS in category-neutral terms, as applying within nominals as well as within clauses.)

(77) English (personal knowledge)
   a. I_i made [a (pro_i) valiant attempt [PRO_i to free myself]].
   b. *I_i made [$Chris_k$'s valiant attempt [PRO_i to free myself]].
   c. I_i praised [$Chris_k$'s valiant attempt [PRO_k to free herself]].

At this point, one might wonder why the third singular form *a-li* of Agr-C is ruled out in (76), as well as the first person form *ndi*. *A-li* would be the form that agrees with an SoK controlled by the possessor 'Alfred'. The possessor controlling SoK in this structure is allowed by the GOCS. However, C can still not agree with this SoK by the T/Agree Condition, given that possessors do not trigger agreement on T or any analogous DP-internal head in Lubukusu. This is a fourth

case in which a "thematic subject" of some kind (which possessors often are) fails to trigger C-agreement itself while still preventing some other argument from doing so. In this way, possessors are similar to the causees of syntactic causatives, the *by*-phrases of long passives, and the source phrases of verbs like 'hear' in some languages.

Diercks (2013: 378) takes the discussion of CP complements of nouns one step farther by showing that modifying the head noun in a [N+CP] structure with a locative/PP element does not block C from agreeing with the subject of the sentence in Lubukusu, the way that modifying it with a possessor does. Thus (78) contrasts minimally with (76).

(78) Lubukusu (Diercks 2013: 378 (57))
        *M-bona bu-ng'ali mu-Alfredi **ndi** baba-ana b-ewa ba-kha-khil-e.*
        1SG.S-PRS.see CL14-certainty LOC.18-Alfred 1SG.C CL2-children CL2-his CL2.S-FUT-win-SBJV
        "I see the certainty in Alfred that his children will win."

From a syntactic perspective, this is perfectly compatible with my analysis. It is possible for an NP to have both a possessor and a distinct PP modifier (e.g., *Chris's book on the shelf*), so 'certainty' in (78) could have a null possessor controlled by 'I' as well as the PP modifier 'in Alfred'. (However, it would have to be worked out what the complex NP in (78) would have to mean on this analysis, and then tested to see if it does in fact mean that.)

This potentially holds the key to understanding a surprising difference between Ibibio and Lubukusu/Kipsigis. In Ibibio, having an overt possessor inside NP does not block Agr-C in the complement of N from agreeing upward with the subject the way that it does in the other languages. One example is in (79) (see (73b) for another). Here the possessor *Emem* inside NP cannot trigger C-agreement, as predicted by the T/Agree Condition, but neither does it prevent C from agreeing with the matrix subject 'children', giving the 3PL-C form *e-bo*.

(79) Ibibio (fieldwork, Willie Willie)
        *Nditọ e-me-kop mbʌk Emem (**e-bo**/*a-bo) ke Okon a-maa-yip ngwet.*
        children 3PL-PERF-hear news Emem 3PL-C/*3SG-C that Okon 3SG-PST-steal book
        "The children heard Emem's news that Okon stole the book."

This can be analyzed as parallel to (78) if the overt "possessor" in Ibibio is not necessarily a subject-like argument, but can be structurally more like Lubukusu's 'the sincerity in Alfred' in (78) than like 'Alfred's sincerity' in (76).[39] This kind of variation is not too surprising from a broader typological perspective. We know that possessers are more subject-like in some languages than in others; for example, *Mary* in *Mary's book* looks superficially like a subject of DP (a specifier) in English, whereas *Maria* in *el libro de Maria* looks superficially more like a PP complement of N in Spanish. But again, the details need to be worked out and supported internally to Ibibio.

This then is the overall pattern. In addition to Agr-C being possible in the CP complements of verbs (the canonical case), we have seen that it is also possible in low adjunct clauses ('so that' clauses) and in the CP complements of nouns. However, Agr-C is not possible in CPs in a variety of other syntactic positions, including sentential subjects, high adjunct clauses ('because', 'when' and 'if' clauses), and relative clauses. To this we can also add that an agreeing complementizer is not found in root clauses in any of these languages—an elementary fact that has generally been taken for granted in the literature on this topic to date. This distribution is analogous to what we find in control theory, where CP complements and some CP adjuncts are contexts of obligatory control, whereas CP subjects, other CP adjuncts, relative clauses, and root clauses are not contexts of obligatory control. The fact that the upward C-agreement constructions and canonical control constructions have parallel distributions argues in favor of my hypothesis that obligatory control is crucially involved in upward C-agreement constructions. It provides the link between SoK, which C is in a position to agree with, and the NP in the matrix clause, which is the ultimate source of the phi-features that are manifested on C.

We have now considered the two crucial ingredients of C-agreement according to the indirect agree hypothesis: how the local trigger of C agreement is licensed by a kind of thematic role assignment from an Eval head and how it is controlled by an argument of the lexical head which the CP merges with. These two ingredients provide the core of my account.

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[39] Logophoric pronouns in Ibibio also show that a noun like 'news' can have a null argument in addition to the possessor, as discussed in Chapter 5.

4. Upward C-agreement with objects

In many respects, the core syntax of upward C-agreement seems to be quite stable across the African languages, with only a few differences around the edge of the account, such as the exact meaning of the Eval head, the grammatical status of source phrases, and so on. There is, however, one more dramatic difference between Kipsigis and the other languages. This is the fact that C in Kipsigis can show double agreement, with the matrix object as well as with the matrix subject, according to the analysis of Diercks & Rao (2019). Two examples of this phenomenon are shown in (80).

(80) Kipsigis (Diercks & Rao 2019)
      a. *Ko-i-mwaa-an*   **i-lɛ-ndʒan** *ko-Ø-ɪt*   *laɣok.*
        PST-2SG.S-tell-1SG.O 2SG-C-1SG PST-3-arrive children
        "You (sg) DID tell me that the children arrived."

      b. *Ko-a-mwaa- tʃi*   **a-lɛ-ndʒi** *ko-Ø-ɪt*   *laɣok.*
        PST-1SG.S-tell-APPL.3.O 1SG-C-3   PST-3-arrive children
        "I DID tell him/her/them that the children arrived."

Here agreement with the matrix subject is a prefix on C, whereas agreement with the matrix object is a suffix on C. This second agreement is a productive possibility with any verb that allows both a CP and a matrix object. For example, it is possible with the manner of speech verb 'whisper', as well as the generic speech verb 'tell'

(81) Kipsigis (Diercks & Rao 2019: 382 (29)).
      Ko-a-tʃɔɔm-dʒi Kiproono **a-lɛ-(ndʒi)** *ko-Ø-ɪt tuɣa amut.*
      PST-1SG.S-whisper-APPL.3.O Kiproono 1SG-C-(3.O) PST-3-
      arrive cows yesterday.
      "I whispered to Kiproono that the cows arrived yesterday."

Although this type of C-agreement is considerably more marked, I show how it fits well within the overall theory that I am developing. The main innovation is simply that a C-like head can license two ghostly DP operators rather than one, each of which is controlled by a different argument of the matrix verb. The technological developments that allow for this in Kipsigis are no different from the ones that allow for allocutive marking, for second person indexical shift, and for special addressee pronouns as well as logophoric pronouns in other languages. This section comes with a caveat,

however, given that Driemel & Kouneli (in press) have argued that the agreeing element *-lɛ* in Kipsigis is still synchronically the verb 'say' in examples like (80) and (81). In that case, these are not examples of upward ***C***-agreement after all. But my framework allows for object-oriented control-plus-agreement as well as subject-oriented control-plus-agreement, so Diercks & Rao's analysis is a theoretical possibility. Moreover, even is *lɛ* is a categorially a verb, the same principles of obligatory control may well be at work (see also below).

The first step toward expanding the account of upward C-agreement for (80) and (81) is indeed saying that the C-space in Kipsigis can license a second ghostly DP, in addition to SoK. I refer to this as OoK, for "object of knowledge".[40] The structure could look like (82).[41]

(82) I_i tell Kiproono$_k$ [$_{Eval1P}$ SoK$_i$ Eval1 [$_{Eval2P}$ OoK$_k$ Eval2 [$_{TP}$ arrived...]]]

Here the Eval1 head agrees with SoK and Eval2 agrees with OoK. Eval2 then moves into Eval1 to create a single head, spelled out as *lɛ*. This complex head then has two distinct bundles of phi-features, coming from different sources.[42]

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[40]
  It is not clear whether the presence of the OoK in the structure is semantically detectable, the way that SoK is according to §2.2. Diercks & Rao report that examples like (80) and (81) have a different force with upward object agreement and without it, tentatively saying that examples with object agreement on C have verum focus. However, it is not clear how this kind of meaning might relate to the presence of a theta-role receiving DP like OoK. Driemel & Kouneli (in press) say that they were not able to replicate this difference with all their speakers. They do not include this in their analysis, and neither do I.

[41]
  In that there are two DPs in the periphery, (82) starts to resemble Speas & Tenny's (2003) SAP structure, which has two ghostly DPs (speaker and hearer), rather than their EvalP structure, which has only one (SoK). Indeed, I claim that SoK and OoK in Kipsigis are parallel to Sp and Ad in other languages like Magahi. But despite the parallelism, SoK and OoK also different from Sp and Ad in a cluster of ways. For example, Sp and Ad have 1st and 2nd person features, whereas SoK and OoK do not. I discuss this in detail in Chapters 3 and 4.

[42]
  There are various ways to develop the details, which do not matter much for my purposes. For example, Eval2 could be segmentally /***ndʒ***/—a distinct piece of the morphology of agreeing C which is cognate with an applicative affix found on verbs (see Driemel & Kouneli in press). It is also possible to posit a single Eval head that licenses two specifiers, an outer one (SoK) and an inner one

The other major piece of my analysis of upward C-agreement is obligatory control: the matrix subject controls SoK whereas the matrix object controls OoK, as shown by the indexing in (82). This is in line with the GOCS: both null controllable DPs in the periphery of the CP complement are controlled by arguments of the verb that CP is the complement of. Indeed, Diercks & Rao show that upward object agreement on C in Kipsigis has the same clause-level locality that upward C agreement with the subject has. Thus in (83a) the complementizer in the lowest CP can agree with 'you', the object of the verb 'tell' that that CP is the complement of, but it cannot agree with *Kiproono*, the object of the higher verb. (83b) adds that the C in the lowest CP cannot agree with the object of a verb two clauses up even if the intermediate verb ('think') does not take an object of its own. (I thank Madeline Bossi for providing this example.) This follows from the GOCS. In contrast, a relativized-minimality-style statement like "C in Kipsigis shows suffixal agreement with the closest c-commanding object" would allow *i-le-ndʒan* in (83b).[43]

(83) Kipsigis (Diercks & Rao 2019: 383 (31); Bossi p.c.)
    a. *Ko-Ø-mwɔɔ-**tʃi*** *tʃɛpkoɛtʃ* **Kiproono** *kɔlɛ ko-a-mwaa-un*
    *a-lɛ-ndʒin/*a-lɛ-**ndʒi*** *ko-Ø-ɾuuja tuɣa.*
    PST-3.S-tell-APPL.3.O Chepkoech Kiproono that PST-1SG.S-tell-2SG.O 1SG-C-2SG.O/*1SG-C-3.O PST-3.S-sleep cows

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(OoK), if one's framework minimizes heads and allows multiple specifiers.

[43] Driemel & Kouneli (in press) do not discuss this locality restriction, and it is not clear to me how it could be explained by their analysis, according to which the putative C-agreement with the object is really an object clitic licensed by applicative formation on the verb *le* 'say'. For example, they would give (83b) with the double-agreeing C the meaning "Kibeet told me that you think something and your thinking caused you to say **to me** that Chepkoech will have a visitor". This is a coherent and sensible meaning. I think this is symptomatic of a larger problem with their account: that *le* denotes to an event that is distinct from that of the verb that selects it but the two events are in a (bidirectional) causative relationship with each other. Causation is too loose a relationship for these examples; in Chapter 8 I argue for a view that C is a predicate of events that is *identified* with the matrix verb, which is itself a predicate of events.

On the other hand, I have no explanation for D&K's observation that for some speakers with some matrix verbs, *le* can bear an object agreement/clitic even when the matrix verb has no object to agree with. For these specific examples, I would accept their analysis that *le* is the true verb 'say'.

"Chepkoech told Kiproono that I told you that the cows slept."

b. *Koo-mwa-**waan** Kibeet ko-le-(nʤan) ii-bwat-i i-le-
(*****nʤan****) tiiny-e Chepkoech tɔɔndet kaaron.*
PST.3.S-tell-1SG.O Kibeet 3SG-C-(1SG.O) 2SG.S-think-PROG
2SG-C-(*1SG.O) have-PROG Chepkoech guest tomorrow
"Kibeet TOLD me that you think that Chepkoech will have a
visitor tomorrow."

The GOCS similarly predicts that C in Kipsigis can agree with the object of the matrix verb but not with the possessor of the object of the matrix verb, since that is not an argument of the verb which CP is the complement of. This has not been tested, however.[44]

Perhaps the most theoretically significant aspect of upward C-agreement in Kipsigis for my overall theory is that it strongly supports (33), the statement that the obligatory controller of a ghostly DP X is the argument of the CP-selecting verb whose thematic role best matches the thematic role of X. This is my core generalization about controller choice for the ghostly operator constructions. So far, we have only seen one side of this generalization: the agent-subject (or source, or experiencer) of the matrix verb can control SoK and hence trigger agreement on C, but the goal or theme object cannot. This provides the basis for my answer to the question of why C agreement in languages like Kinande and Lubukusu apparently skips agreeing with the object, which looks like a closer target, and agrees with the subject instead. In Kipsigis, we can see the other side of a pleasingly symmetrical coin: the matrix goal-object can control OoK and thus trigger agreement on Eval2, whereas the agent-subject cannot. This is also a consequence of (33) on the assumption that Eval2 assigns a theme or goal-like role to OoK, rather than an agent-like one. This in turn makes sense of we think of OoK as being like the object of C in a neo-performative theory, just as SoK is like the subject of C, C being

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[44]
  Another similarity between upward C-agreement with objects and upward C-agreement with subjects is that both are possible in the CP complement of a noun like 'story' functioning as the object of a verb like 'tell' (Diercks & Rao 2019: 384 (35)). My analysis from §2.3.4 can extend to this case if we assume that 'story' can have two null arguments, an agent-like null possessor and an implicit goal (cf. English *your letter/story to me*). Then the subject and object of 'tell' can control the two null arguments of 'story' and the null arguments of 'story' can control SoK and OoK in accordance with the GOCS.

thought of now as a grammaticalization of triadic 'tell' rather than of dyadic 'say'. This shows that there is no intrinsic ban on objects controlling ghostly operators, and no intrinsic privilege for subjects to control them. It is just that the thematic roles of the controller and the controllee need to be taken into account—as is also true for the ordinary control of PRO. Thus, Diercks & Rao show that C in Kipsigis cannot show *prefixal* agreement with the matrix object, as in (84). This is the same as the fact that the matrix object cannot control SoK in Kinande, Lubukusu, and Ibibio.

(84) Kipsigis (Diercks & Rao 2019: 373 (8))
   *Ko-a-mwaa-wuun kɔlɛ/a-lɛ/ *i-lɛ ko-Ø-ɾuuja tuɣa amut.*
   PST-1SG.S-tell-2SG.O that/1SG-C/*2SG-C PST-3.S-sleep
   cows yesterday
   "I told you (SG) that the cows slept yesterday."

In contrast, the possibility of *suffixal* agreement on C with the matrix object in Kipsigis shows that matrix objects of ditransitives can control into CPs with an agreeing C. They just can't control the SoK element, but only OoK. Conversely, (85) shows that the subject of the matrix clause cannot control OoK, such that it triggers suffixal agreement instead of or in addition to prefixal agreement.

(85) Kipsigis (Diercks & Rao 2019: 383 (30))
   *Ko-a-mwaa-un a-lɛ-ndʒin/*a-lɛ-ndʒan ko-Ø-ɾuuja tuɣa.*
   PST-1SG.S-tell-2SG.O 1SG-C-2SG.O/*1SG-C-1SG.O PST-3.S-
   sleep cows
   "I told you (SG) that the cows slept."

This is the empirical evidence that the agent can control SoK but not OoK and the goal can control OoK but not SoK—a straightforward and symmetrical matching of thematic roles.[45]

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[45] Diercks & Rao point out that the existence of C agreement with objects in Kipsigis disrupts Diercks's (2013) account of C-agreement in terms of agreeing with a subject-oriented anaphor. This is hard to generalize to upward C-agreement with objects, since standard Binding theory does not know of distinctively object-oriented anaphors. My use of control theory is in better shape here, given that object control is well-attested alongside subject control.

There is some evidence that this is better thought of in terms of thematic role matching than in terms of matching grammatical functions like subject and object. Thematic roles and grammatical functions usually line up in predictable ways. Moreover, Kipsigis does not have passive and causative constructions, which are what create the obvious mismatches between thematic roles and their usual structural positions in Bantu languages. But Driemel & Kouneli (in press) do mention one kind of example in which a surface direct object can trigger prefixal agreement on -*le*, in contrast to D&R's (84). This happens in (86) with the matrix verb 'forget'.

(86) Kipsigis (Driemel & Kouneli in press: 10 (14))
   Ka-Ø-wu:t-u-an a:-le kɔ:-Ø-kɛr Kibe:t kurge:t.
   PST-3.S-forget-VENT-1SG.O 1SG-C PST-3.S-close Kibeet.NOM
   door
   "I forgot that Kibeet closed the door."

Here the syntactic object does control SoK (and not OoK). The difference between (86) and (84) is that (86) has a nonthematic expletive subject rather than an agentive one, and the object is an experiencer, not a pure goal (see (52)). In this case, the structural object does have the right kind of thematic role to control SoK. This shows again that the kind of thematic role that an argument has is an important factor, not just its structural position/grammatical function.[46]

One further thing to note about upward object agreement in Kipsigis is that it does not seem to be subject to the T/Agree Condition. There is apparently no true object agreement in Kipsigis. First and second person object pronouns are realized as suffixes on the verb, but these are taken to be object clitics rather than true agreement by Driemel & Kouneli (in press) and Bossi (p.c.). And there is no overt object agreement/clitic for third person. Nevertheless, unagreed-with objects can still control OoK and thereby trigger agreement on Eval2, as we

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[46] Diercks & Rao (2019) also discuss the fact that C-agreement with the matrix object is contingent on C agreeing with the matrix subject in Kipsigis. This follows if we assume that the OoK-Eval2 structure in (82) is dependent on the presence of the SoK-Eval1 part. Perhaps the presence of OoK is the result of a form of optional applicativization applying to a head that intrinsically selects SoK as its subject argument. (This is Driemel & Kouneli's (in press) view, apart from the question of whether *le* is a C or V synchronically.)

have seen. This converges with evidence from Driemel & Kouneli (in press) that suggests that even upward C-agreement in Kipsigis is not subject to the T/Agree Condition, in that source phrase associated with 'hear' and the experiencer object of 'forget' can trigger subject-type upward C agreement in Kipsigis (see (86)), unlike in Ibibio and its kin. However, the T/Agree Condition could be a factor in explaining why upward C-agreement with objects is much rarer than upward C-agreement with subjects. Many Niger-Congo languages have robust subject agreement but not object agreement with overt in situ objects; this allows them to have upward agreement on C with subjects but not with objects. Even if OoK is posited in the periphery of CP in a Niger-Congo language, it cannot lead to upward object agreement in languages that obey the T/Agree Condition but do not have true object agreement.

In this section, I have assumed for the sake of argument Diercks & Rao's (2019) view that *-lɛ* can be and often is a C head in Kipsigis, showing how comfortably their analysis of upward C-agreement with objects can be embedded within my analysis. In contrast, Driemel & Kouneli (in press) argue that *-lɛ* is always a verb in Kipsigis. I cannot fully get to the bottom of this issue, not knowing anything about this language except what the four authors tell me. But my working hypothesis (best guess) is that *-lɛ* is a genuine C in some examples and a verbal participle in others (see also Bossi 2023). Driemel & Kouneli give good evidence that *-lɛ* is sometimes a verb in subjunctive mood in Kipsigis: it can be inflected for aspect as well as for mood, it can be modified by an adverb, and it can bear applicative, reflexive, and reciprocal morphology. However, they do not argue directly that *-lɛ* is never a genuine complementizer. Their article has the flavor of an Occam's Razor argument: some instances of *-lɛ* are unambiguously verbs, all instances of *lɛ* can be analyzed as verbs (they claim), so all instances of *-lɛ* should be analyzed as verbs. Although this is not an unreasonable hypothesis, it is not at all rare in natural languages for a single vocabulary item to be multifunctional in significant ways. Prima facie reasons to think that *-lɛ* can be a C in Kipsigis are: (i) it often appears where we would expect a C to be (before an embedded clause in a head-initial language); (ii) it has the meaning we expect a C to have (i.e., very little meaning; in particular it clearly does not literally mean 'say' in many examples); (c) it has a unique syntax, being the only element possible as the head of the complement of a verb, as expected for a C. (On Driemel & Kouneli's view, it is not at all clear why other verbs with similar meanings cannot be used in the

same C-like positions, V being an open class category; cf. D&K (in press: 29).) Therefore, I assume that in examples where there is nothing in the structure that forces *-lɛ* to be parsed as a verb, it can be parsed as a C-head. This C analysis is particularly appropriate when there is no explicit sense of saying associated with *-lɛ*—when *-lɛ* is used with a verb like 'think', 'hear', 'forget', or 'be angry', among others.[47] Finally, I point out again that if one claims that the structure in (82) exists in Kipsigis, but what I call Eval1 is really a v/Voice and what I call Eval2 is really a V(+Appl), this need not change how the principles of control apply to the structure in any fundamental way.

5. Deriving the T/Agree Condition

Although Kipsigis may not obey the T/Agree Condition, depending on the exact status of object clitics and upward C-agreement in that language, we have seen in §2.3 a rich set of facts showing that Kinande, Lubukusu, and Ibibio do. Why would such a condition hold? This question allows us to turn the spotlight on the third key element of my analysis of upward C-agreement: the fact that C can enter into Agree with SoK (and OoK). In most respects, this Agree relationship is straightforward. Given the structures I have posited, SoK matches Eval in feature attributes, is in a c-command relationship with it, is not separated from it by any phase boundaries, there is no other DP that intervenes between it and Eval, and SoK is not rendered inactive by a valued case feature. Moreover, since SoK is a silent element, we cannot easily observe exactly where it is in the CP space. Therefore, if one thinks something different about one of these conditions, there is room to tweak my structures to align with one's views. For example, if one is set on agreeing heads always probing downward, one could assume that the agreeing head is not Eval itself, but the next higher

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[47] I find it potentially significant that most if not all of Driemel & Kouneli's striking examples of *-le* showing verbal behavior are ones in which the matrix/first verb is a verb of speaking, where the lexical meaning of 'say' is redundant. For example, when *-le* bears imperfective aspect in their (21), the matrix verb is 'say'; when *-le* is modified by the adverb 'slowly' in (27), the matrix verb is again 'say'; when it has an overt subject of its own in (40), the matrix verb is again 'say' ; when it has applicative morphology that cannot be analyzed as object agreement, the main verb is 'complain' or 'write'. I would like to know if these unambiguous verbal behaviors are possible when *-le* follows verbs like 'think', 'hear' and 'forget', and if so, whether a clear sense that a saying event was involved emerges, which *-le* does not otherwise require.

head in the C-space that selects EvalP as its complement—a minor revision. Overall, then, there is little to explicate about the Agree relation in these structures, other than their adherence to the T/Agree Condition. This is, however, an appropriate place to ponder that condition. Whereas the control theory generalizations laid out in this chapter come up again and again in subsequent chapters, this Agree-theoretic phenomenon only applies to one other of my rare constructions (monstrous agreement; see Chapter 6). So now is a good time for the T/Agree Condition to claim the spotlight.

Let us recap what we have learned about this so far. I originally stated the T/Agree Condition as in (35b). (This generalizes from SoK to apply in principle to any of the ghostly DPs outlined in Chapter 1.)

(87) The T/Agree Condition:
      C can agree with ghostly DP X if and only if T enters into an
      Agree relationship with the controller of X.

The empirical basis of this generalization is the observation that there is a range of "thematic subjects" which are qualified to control SoK as far as the principles of control are concerned, but which never occupy Spec TP and which T does not agree with. These thematic subjects may indeed control SoK, as suggested on semantic/selectional grounds internal to Kinande and by comparison with other ghostly operator constructions. However, these thematic subjects cannot trigger agreement on C in Kinande, Lubukusu, Ibibio, and Ikalanga. This class includes the causees of productive morphological causative constructions, the *by*-phrases of passives, the source phrases used with verbs like 'hear', experiencer objects as opposed to experiencer subjects, and the possessors of nouns like 'news' and 'rumor' in a noun complement construction. This difference between upward C-agreement and other ghostly operator constructions is particularly striking in Ibibio, which has both upward C-agreement and logophoric pronouns: logophoric operators can be controlled by any of these nonagreed-with thematic subjects (see Chapter 5), but C cannot agree with them. Why should this be?

To unravel this, I start by observing that agreement plays a double role in (87): the dependent factor is whether C agrees with SoK, and the conditioning factor is whether T agrees with the controller of SoK. Therefore, the theory of Agree(ment) is where we should look for a deeper explanation. At first this condition seems very peculiar: why should the agreement of one head be contingent on whether a higher

head agrees with a particular NP or not? There is something intrinsically countercyclic about this, it seems. Agree is normally determined very locally, as a private affair between two linguistic elements, the probing head and its nearby goal. Why should what happens in a higher clause affect this?

There are, however, some other cases of what we can call *dependent agreement* in the literature. One that has been studied in detail by Bhatt (2005) is agreement on infinitives in Hindi. Consider the examples in (88), which have an infinitival clause with no overt subject functioning as the complement of the matrix verb 'want'.

(88) Hindi (Bhatt 2005: 761-762)

    *a. Shakrukh-ne [ṭehnii kaaṭ-**nii**] chaah-**ii thii**.*
    Shahrukh-ERG branch.F.SG cut-INF.F.SG want-PFV.F.SG
    be. F.SG
    "Shahrukh had wanted to cut the branch."

    *b. **Shakrukh** [ṭehnii kaaṭ-naa/*nii] chaah-**taa thaa**.*
    Shahrukh branch.F.SG cut-INF.M.SG/*INF.F.SG want-
    IPFV.M.SG be. M.SG
    "Shahrukh wants to cut the branch."

Hindi is a split-ergative language. In (88b), the matrix verb 'want' is in the present-imperfective, so the subject of 'want' is in nominative case, and 'want' agrees with that subject. In this case, the infinitive 'to cut' cannot show agreement in number and gender with its object 'branch'; it shows up in the default masculine form *kaat-naa*, not the feminine form *kaat-nii*. In contrast, in (88a) the matrix verb 'want' is in the past perfect. As a result, the subject of 'want' is in ergative case, in accordance with the Hindi's brand of split ergativity (see Baker (2024) for an analysis in terms of Dependent Case Theory). Therefore, T in the matrix clause cannot agree with the subject of the matrix clause in (88a). Rather, it probes further down into the structure to find something to agree with, much as T does in dative subject constructions in Icelandic and many other languages. In this case, it finds 'branch', the object in the embedded clause. (This is possible because 'want' is a restructuring predicate in Hindi, where the embedded infinitive does not have a structural subject and does not come with a phasal CP projection; see Bhatt (2005) on Hindi and Wurmbrand (2003) on restructuring more generally.) The crucial surprise is that in this case the infinitive 'cut' also agrees with its object 'branch', showing up in feminine form as *kaat-nii*. Infinitives in

(this common dialect of) Hindi thus show dependent agreement: they agree with their object if and only if the higher head T does.[48]

Similar behavior can be seen in participial constructions in Icelandic. In (89b), the participle 'sold' is in construction with the active/transitive auxiliary 'have'. T in this clause agrees with the agent-subject, as usual. In this case, the participle cannot agree with its theme-object 'boats'; it is not the masculine plural form *sel-dir*, but rather the default (neuter singular) form *sel-t*. However, in (89a), the participle 'sold' is in construction with the passive/intransitive auxiliary 'be'. As a result, there is no agent subject for T to agree with. Instead, T probes downward into the VP and agrees with the only full DP in the construction: the theme argument 'boats'. When this happens, the participle also agrees with 'boats', showing up as *sel-dir,* not *sel-t*. This is another instance of dependent agreement.

(89) Icelandic (Sigurðsson 2000)

a. *Það <u>mundu</u> þá sennilega ekki verða **seldir bátar** á uppboðinu.*
there would then probably not be sold.M.PL boats.M.PL at auction.the
"Boats would then probably not be sold at the auction."

b. *...að <u>hann</u> hefur ekki **selt** bátana.*
that he has not sold.N.SG boats.the.M.PL
"…that he hasn't sold the boats."

I propose a connection between this phenomenon of dependent agreement in Hindi and Icelandic and the T/Agree Condition described in (87). In each case, a "weak" or "dependent" agreeing head—Inf in Hindi, Part in Icelandic, Eval in the African languages— agrees with a certain DP if and only if a "strong" or "primary" agreeing head—namely T—also agrees with it. A theory of agreement that accounts for this feature of Hindi and Icelandic could potentially generalize to explain (87) in the African languages.

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[48] Similarly, in a sentence like (i), where the infinitival phrase is a subject rather than a complement, the infinitive 'eat' does not agree with its object 'tamarind' in the dialect of Hindi that Bhatt discusses.

(i) Hindi (Bhatt 2005: 771 (24))
[imlii khaa-naa] achchhaa hai. (not khaa-nii, eat-INF.F.SG)
tamarind.F eat-INF.M.SG good.M.SG be.PRS.3SG
"To eat tamarind is good."

Not every theory of Hindi and Icelandic agreement would in fact generalize in this way. Here is a sketch of one that does. Arregi and Nevins (2012) decompose the operation of Agree into two distinct components: Agree-Link, which happens first and creates a pointer from the probing head to a DP that has the feature attributes that the head is probing for, and Agree-Copy, which happens later and transfers the actual feature values on the goal to the probe (deleting the pointer). This is stated in slightly revised terms in (90).

(90) a. Agree-Link: In the syntax, *P* has a probe feature [_F] that triggers Agree with G (possibly more than one). The result is a pointer from *P* to *G*.
      b. Agree-Copy: If there is a pointer from P to G, copy the values of the phi-features of *G* onto P and delete the pointer.

Different theorists have made use of this distinction in a variety of ways. Arregi and Nevins themselves use it to factor out what is consistent about agreement with objects across the Basque varieties and what varies. Bhatt and Walkow (2013) and Marušič, Nevins et al. (2015) use it explain the distribution of resolved versus closest conjunct agreement in Hindi and Serbo-Croation. Atlamaz and Baker (2018) use it to account for instances of partial agreement with oblique subjects in some languages but not others. Baker and Camargo Souza (2020) argue that Agree-Link without Agree-Copy is a building block of switch-reference constructions.

Here is a new use of this distinction. We can think of dependent agreeing heads like Inf in Hindi and Part in Icelandic as heads that trigger Agree-Link but not Agree-Copy—a property specified in the lexical entries of those heads. In contrast, T in these languages is a head that triggers both Agree-Link and Agree-Copy, as usual. As a result, Inf and Part establish a link with a nearby NP, but they do not themselves have the power to use that link to copy features. If nothing else happens, they fail to manifest actual agreement with the NP that they enter into Agree-Link with. However, I propose that T's ability to trigger Agree-Copy for itself spreads to these other heads, such that the features of the NP end up being copied onto Inf and Part as well as onto T. This can be captured by reformulating Agree-Copy as in (91).

(91) Agree-Copy
      If H points to DP and H is [+Agree-Copy], then phi(DP) is copied onto **all heads** linked to DP.
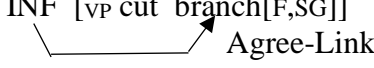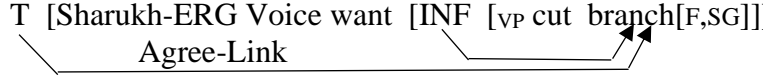
The novelty here is that a head triggering Agree-Copy not only transfers phi-features to itself, but also to any other head that is linked to the goal within a web of pointers created by Agree-Link.

It is not hard to give an analysis of dependent agreement in Hindi using these notions. I propose the following derivations for the Hindi examples in (88). (88b) is derived as in (92). Inf is merged and undergoes Agree-Link downward with the only DP in its c-command domain, the object, as in (92a). (Recall that there is no CP or VoiceP projection here, following Wurmbrand's (2003) theory of restructuring.) Other heads then merge in one at a time, including the matrix verb 'want', the matrix Voice, the experiencer subject in Spec VoiceP, and finally T. T also triggers Agree-Link, resulting in a pointer from T to the wanter *Sharukh*, as shown in (92b). T then triggers Agree-Copy, but T is the only head linked to *Sharukh* in this structure. The features of *Sharukh* are transferred to T, but no features are transferred to Inf. Inf is then assigned default feature values (masculine singular), as shown in (92c).

(92) a. INF [$_{VP}$ cut branch[F,SG]]
         |_____↑ Agree-Link

    b. T [Sharukh Voice [want [INF [$_{VP}$ cut branch[F,SG]]]]]
        |_____↑Agree-Link |_____↑

    c. T [Sharukh Voice [INF [$_{VP}$ cut branch[F,SG]]]]
       [3, M, SG]   (default)

The corresponding derivation of the more interesting (88a) is in (93). Inf undergoes Agree-Link with the object of 'cut' in (93a), as in (92a). Other heads merge in up to the matrix T in (93b), as in (92b). T triggers Agree-Link, as in (92b). But crucially the subject of the matrix clause bears ergative case, since the the matrix clause is perfective. As a result, the wanter *Sharukh* is not an active goal that T can enter into Agree-Link with. Therefore, T searches farther and finds the next closest goal in its domain, establishing a pointer to that. That happens to be 'branch', the object in the VP of the InfP complement of 'want'—the same goal that Inf found earlier in the

derivation.[49] Next, T triggers Agree-Copy. According to (91) this transfers the phi-features of 'branch' not only to T, but also to Inf, since Inf also points to 'branch'. Both T and Inf are thus 3rd person feminine singular ((93c)).

(93) a. INF [$_{VP}$ cut branch[F,SG]]
            Agree-Link

   b. T [Sharukh-ERG Voice want [INF [$_{VP}$ cut branch[F,SG]]]
            Agree-Link

   c. T [Sharukh-ERG Voice want [INF [$_{VP}$ cut branch[F,SG]]]]
      [3, F, SG]   [3, F, SG]

The derivations for (89a,b) in Icelandic are similar, except they have a participle head where (92) and (93) have an infinitival head, and they have an auxiliary verb ('have' or 'be') where (92) and (93) have a restructuring verb ('want'). I submit that this is a plausible way of capturing the phenomenon of dependent agreement.

Another source of inspiration for this account to acknowledge is Pesetsky & Torrego's (2007) conception of agreement. Pesetsky & Torrego also assume that Agree-relationships can be established before the elements in that relationship have specific feature values to be shared, and that when one member of an old Agree relationship gets phi-features by a subsequent process of Agree, those features automatically belong to the second member of the original Agree relationship as well. My proposal here is essentially a marriage of Pesetsky & Torrego (2007) with Arregi & Nevins (2012), using the technology of the latter to capture some of the intuitions of the former. These leading ideas are motivated without yet considering the phenomenon of C-agreement.

This form of analysis now extends to C agreement in the African languages. The key idea is that C, like Inf and Part, is a dependent agreer: it is specified in the lexicon as undergoing Agree-Link but not Agree-Copy, whereas T in these languages is a primary agreer,

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[49] I assume that Inf is not a nominal head, such that InfP itself a goal for T. Others have assumed the contrary, that T really agrees with the InfP in (88a), where InfP somehow inherits the gender features of the object inside it. However, this view does not generalize to the other constructions discussed here.

triggering both Agree-Link and Agree-Copy, as in the IE languages. We do need one further assumption, though. In Hindi and Icelandic, T and the dependent agreer both enter into Agree-Link with the very same DP, the object of the lower verb. That is not true in the cases of upward C-agreement on the current account: C/Eval agrees with SoK in Spec Eval, whereas T agrees with the matrix subject. However, the matrix subject and the SoK are closely related, in that the matrix subject obligatorily controls SoK. Included in this, the two DPs are closely related in a sense relevant to the theory of agreement, in that SoK inherits its phi-features from its controller. This needs to be a feature of any account, taken for granted in my exposition to this point. Suppose that we represent this logically distinct kind of phi-feature sharing in the same format, by saying that control creates a pointer from SoK to its obligatory controller. Now we can derive the T/Agree Condition as stated in (87). Consider first a positive case in which T and C both agree with the matrix subject, as in (94).

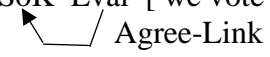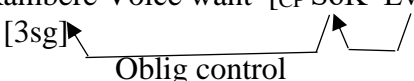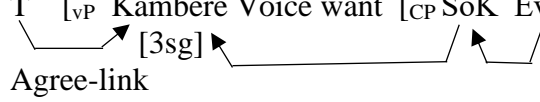(94) Kinande (fieldwork, Philip Mutaka)
        Kámbére   ***a****-sond-ire*   ***a-ti*** *i-tw-a-mu-tsakura.*
        CL1.Kambere CL1.S-want-ASP CL1-C SBJV-1PL.S-TNS-CL1.O-vote
        "Kambere wants that we vote for him."

This is derived as in (95). First the EvalP/CP is built. Eval undergoes Agree-Link with SoK, giving (95a). (Again, this could be downward Agree, or upward/Spec-head Agree, depending on the exact structure of the CP periphery.) However, Eval does not trigger Agree-Copy, as a lexical property. Then the matrix vP is built up in stages, as in (95b). At this point, obligatory control applies, with the matrix experiencer controlling SoK. By hypothesis, this results in a pointer from SoK to the experiencer in Spec VoiceP, expressing that the former gets its phi-features from the latter. Finally, the matrix T is merged. T triggers Agree-Link, creating a pointer from T to the experiencer subject in Spec VoiceP, as in (95c). T is a primary agreer, so it also triggers Agree-Copy. This puts the features of *Kambere* on T, as usual. But in

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[50] It is also easy to imagine parameterizing this property, by saying that C is a primary agreer in Kipsigis (and possibly Justin Sikuku's Lubukusu). This would derive the pattern that C can manifest agree with SoK (and OoK) without any other head agreeing with its controller. However, I revise these assumptions somewhat in Chapter 3, where I consider differences between upward C-agreement in African languages and addressee agreement in Magahi.

accordance with (91) it also puts the features of *Kambere* on Eval, given that Eval is also linked to *Kambere* by a chain of two pointers. Therefore, C/Eval receives phi-features from SoK because T agrees with the controller of SoK. This derives the positive case of (87).

(95) a. [_{CP} SoK Eval [we vote for him]]
                    Agree-Link

      b. [_{vP} Kambere Voice want [_{CP} SoK Eval [we vote …]]
           [3sg]
                Oblig control

      c. T   [_{vP} Kambere Voice want [_{CP} SoK Eval [we vote …]]
                [3sg]
      Agree-link

      d. T   [_{vP} Kambere Voice want [_{CP} SoK Eval [we vote …]]
    [3sg]   [3sg]   [3sg] [3sg]
      Agree-copy

In contrast, suppose that the vP structure in (95b) is generated not as the complement of a T head, but rather as the complement of the causative head 'make'. In this case C cannot manifest agreement with the superordinate thematic subject, as shown again in (96).

(96) Kinande (fieldwork, Philip Mutaka)
        Aba-kali mo-ba-sond-esirye **Kambere** *ambu/*a-ti*
        mupaka a-gend-e omo-soko.
        CL2-women AFF-CL2-want-CAUS.ASP CL1.Kamabale
        they.say/*CL1-C forcefully CL1.S-go-SBJV LOC-market
        "The women made Kambere want that he go to the market."

The structure and derivation of this example is the same up to (95b) (except for the content of the lowest TP, which is irrelevant here). But in (96) the next thing to merge with vP is not a T but the causative verb, and then its external argument, the causer 'women'. When T is finally merged with this larger VoiceP, it probes downward and enters into Agree-Link and Agree-Copy with the causer 'women', not the causee 'Kambere'. The result is that T gets the phi-features of the 'women', and Eval doesn't copy any phi-features at all; it doesn't point to any DP that enters into a primary Agree relationship that it can piggy-back on. This derives the "only if" side of (87).

Similarly, suppose that vP in (95b) has a passive Voice head rather than an active one. There is still an agent in Spec vP, I assume: either an oblique PP (the *by*-phrase) or a featureless null DP. This agent can control SoK. However, T cannot agree with it, because it does not have phi-features (the covert agent) or its phi-features are shielded from T by the presence of a P (the *by*-phrase). Again, nothing triggers Agree-Copy with the passive agent, and Eval doesn't get its features. Similar results follow for other possible controllers of SoK that T does not agree with, like the source phrase in a 'hear' construction or the possessor of a CP-selecting noun like 'news'.

We can take this one step further by contrasting causative constructions in Ibibio with causative constructions in Kinande. The causative construction in Ibibio does allow C-agreement with the causee, as shown in (97), different from (96) in Kinande.

(97) Ibibio (fieldwork, Willie Willie)
     *M-ma-n-nam [**Koko** á-kere [**á-bo** ke [Enọ a-maa-kpa]]].*
     1SG-PST-1SG-make Koko 3SG-think 3SG-C that Eno 3SG-PST-die
     "I made Koko think that Eno died."

This is evidently possible because the verb 'think' does bear agreement with its subject, the causee 'Koko', in Ibibio's periphrastic causative construction. However, this is a bit different in that the functional head that agrees with the causee here is not T. Causative verbs normally take something smaller than TP as their complements in the languages of the world—VoiceP, or perhaps AspP—and there is evidence that this is true in Ibibio as well. A causative construction is ungrammatical if the embedded verb bears an overt T morpheme as well as subject agreement, as shown in (98).

(98) Ibibio (fieldwork, Willie Willie)
     *Okon a-yaa-nam nditọ e-dia/*e-ke-dia/*e-di-dia adesi.*
     Okon 3SG-FUT-make children 3PL-eat/*3PL-PST-eat/*3PL-FUT-eat rice
     "Okon will make the children eat rice."

Strictly speaking, (97) is a counterexample to the T/Agree Condition as stated in (87): no T agrees with 'Koko' but still the C does. But (97) is not a counterexample to the theory of dependent agreement that I derived (87) from. All that needs to be said is that the lower head that agrees with the causee in (97) and (98), whatever it is (Voice, I assume), is also a primary agreer, triggering Agree-Copy as well as

Agree-Link. That must be true anyway, since there is observable agreement with the causee on 'eat' in (98), without any other head agreeing with the causee that this can be dependent on. So we see that it is the application of a certain kind of agreement that is crucial for paving the way for C-agreement to take place, not the presence of one particular functional head (T) per se. T seems to be the most common primary agreer, but there is no reason to think it is the only one.

There is one further case to consider, which pushes the envelope of the T/Agree Condition somewhat. This is the fact that the subject of an infinitival TP can trigger upward C-agreement in Lubukusu, even though the infinitive does not show visible agreement with that subject. Two examples are given in (99). (99a) has an infinitive with an overt NP subject, whereas in (99b) the subject of the infinitive is PRO controlled by the object of 'order'. In both cases, Agr-C in the complement of the infinitival verb 'say' can agree with *Wekesa*, even though no other head agrees with it overtly.

(99) Lubukusu (fieldwork, Justin Sikuku)
    a. *Ba-saani b-enya [**Wekesa** <u>khu</u>-boola [**a**-li [Wafula a-khemba lulw-imba].*
    CL2-men CL2.S-want CL1.Wekesa INF-say CL1-C CL1.Wafula CL1.S-sing CL11-song
    "The men want Wekesa to say that Wafula sang a song."

    b. *Ba-saani ba-inglila Wekesa [**PRO** khu-bola [**<u>a-li</u>** [omw-eene aa-ba omu-miliyu]]].*
    CL2-men CL2.S-order CL1.Wekesa INF-say CL1-C CL1-self CL1.S.TNS-be CL1-smart
    "The men ordered Wekesa to say that he was smart."

Letsholo & Safir (2019: 8 (11)) make a similar point for Ikalanga. These examples might suggest that it is the presence of T—any T, even a nonagreeing one—that facilitates C-agreement, contrary to my analysis. To bring examples like (99) into the fold, I stipulate that infinitival T in Lubukusu (unlike Hindi) triggers both Agree-Link and Agree-Copy, like other Ts in the language. The difference is that the phi-features copied onto T do not condition any distinctive allomorphs of T in this case. In other words, T [α-person, β-number, γ-gender, -finite] always triggers insertion of the vocabulary item *khu-* in Lubukusu, regardless of the values of α, β, and γ. This is a PF "quirk" of this particular T, which is invisible to the principles of syntax. Since Agree-Copy happens in (99), phi-features are copied onto Eval

too, and there they are exponed.[51] This captures the intuition that, although T does not literally agree in infinitival constructions in Lubukusu, T is there and enters into some kind of head-to-phrase relationship with its subject. That is enough for the T/Agree Condition to be satisfied. This contrasts with constituents that have a thematic subject but no T at all, like the complement of a causative verb in Kinande. I do not have independent evidence that infinitives in Lubukusu agree covertly with their subjects. But the tools to say this are present in the theory, making this a fairly low-cost solution.

With this qualification made, all the major effects concerning the T/Agree Condition in the Niger-Congo languages have come under analysis. From a theoretical perspective, we have learned from this investigation more about how "dependent" agreement phenomena work in natural language—how they are the result of the inner workings of Agree consisting of Agree-Link and Agree-Copy. Future chapters explore further which ghostly DP structures obey this constraint and which do not, and why. This analysis also has the strong consequence that control relationships must be represented in the syntax, so they can be visible to agreement. I take this up again in Chapter 8, where it becomes otherwise tempting to think that obligatory control is only represented at the semantic interface.

6. Conclusion

This chapter has provided a detailed analysis of upward complementizer agreement in a range of African languages. Along with this, it has introduced some foundational concepts for how ghostly DP constructions can be analyzed more generally. First, I argued that the ghostly DP in upward C-agreement constructions is a "Seat of Knowledge" (SoK) DP in the sense of Speas & Tenny (2003), licensed by a kind of thematic role assignment from the Eval head within an articulated C-space. This accounts for the subtle but distinctive ways that examples with agreeing complementizers mean something different from examples without them. Second, I argued

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[51] It is worth noting that this fact about Lubukusu is not an inevitable consequence of UG, but a language particular fact. Ibibio does not have full phi-feature agreement on C/Eval in examples analogous to (99), but rather uses a special exponent *N-* on C in this context, as seen in (106b). The theoretical significance of this is unclear.

that SoK is obligatorily controlled by an argument of the matrix clause in a way that has recognizable similarities with the control of ordinary PRO. This was expressed in a generalized version of Landau's Obligatory Control Signature and in the generalization that the controller and the controllee must match in thematic role. In particular, the controller of SoK, and hence the trigger of upward C agreement, must be a thematic subject of the matrix verb, while the CP containing SoK must be inside VP, as the complement or a low adjunct to the verb (or to a noun like 'news'). Third, the account was generalized to possible cases of upward C-agreement with the object in Kipsigis. This suggests that a CP can have a second ghostly DP (OoK, "object of knowledge"), this one controlled by the thematic object of the matrix verb. Fourth, I discussed an additional condition that is more narrowly restricted to upward C agreement constructions: the T/Agree Condition, which says that C can only manifest agreement with SoK if T (or a similar head) agrees with the controller of SoK. I derived this from the distinction between Agree-Link and Agree-Copy, claiming that C only triggers Agree-Link, but T also triggers Agree-Copy, which copies phi-features from a "chain" of related DPs onto every functional head linked to one of those DPs. In this way, the rare phenomenon of upward C-agreement, known only in this area of Africa and perhaps a handful of other languages around the world, can be built out of UG principles of DP licensing, obligatory control, and Agree. The stage is thus set to show how other rare phenomena can also be built out of these elements.

7. Appendix: C or V in Ibibio?

Throughout this chapter, I have assumed that Ibibio has bona fide agreeing complementizers, on a par with those known from Lubukusu and Kinande. This analysis was first proposed by Torrence (2016). Two examples are given in (100).

(100) Ibibio (fieldwork, Willie Willie)

    a. *M-ma-n-dǫkkǫ anye (m-bo/*á-bo) ke Koko a-maa-bere usǫng.*
    1SG-PST-1SG-tell 3SG 1SG-C/*3SG-C that Koko 3SG-PST-open door
    "I told him that Koko opened the door."

    b. *Nditǫ e-ma-e-toiyo Okon (e-bo/*a-bo) ke Emem a-kpena a-dep adesi.*

children 3PL-PST-3PL-remind Okon 3PL-C/*3SG-C that
Emem 3SG-should 3SG-buy rice
"The children reminded Okon that Emem should buy rice."

This claim requires some defense. As in plenty of other languages,
both of Ibibio's putative agreeing complementizers (-*bo* and -*te*) are
homophonous with main verbs meaning 'say', as can be seen in (101).
Bo can be inflected for tense, whereas *te* cannot be.

(101) Ibibio (fieldwork, Willie Willie)
    a. *Nditọ Okon e-ma-e-bo ke anye i-maa-gha Emem.*
    children Okon 3PL-PST-3PL-say that 3SG 3SG-like-NEG Emem
    "Okon's children said that he doesn't like Emem."

    b. *Okon a-te   ke Koko a-yaa-dia   fufu.*
      Okon 3SG-say that Koko 3SG-FUT-eat fufu
    "Okon says that Koko will eat fufu." (but **i-ma-i-te* 'we said')

Thus, it needs to be determined whether *bo* and *te* are really
complementizers historically related to 'say' or synchronic instances
of the verb 'say' itself. This issue has been debated for other
languages. Recent examples include Driemel & Kouneli (in press) for
Kipsigis (discussed briefly above), Sauerland et al. (2020) for Teiwa,
Major (2021) for Uyghur, and Major et al. (2023) for Lubukusu,
among others. Different authors have reached different conclusions
for different languages.

The possibility that *bo* and *te* in examples like (100) are verbs in
Ibibio is particularly plausible in that this language has a productive
serial verb construction (SVC), similar to those found in less-inflected
Nigerian languages like Yoruba and Edo. Some typical SVC examples
that have nothing to do with sentential complementation are in (102).

(102) Ibibio (fieldwork, Willie Willie)
    a. *N-dep   udia n-tem.*
      1SG-buy yams 1SG-cook
    "I buy yams and cook them."

    b. *Ami n-tọ   esio m-bom.*
      I   1SG-hit pot 1SG-break
    "I hit the pot, breaking it."

> *c. Ami n-dep   udia n-nọ   Emem.*
>   I   1SG-buy yams 1SG-give Emem
> "I buy yams for Emem/giving them to Emem."

In each case, the second verb of the SVC agrees with the subject of the sentence, just as the first verb does. Given the existence of examples like these, it is not at all implausible that Agr-*bo* in (100) could really be the second verb in an SVC.

Without going into what could be fascinating details, we can roughly think of SVCs as consisting of two VPs being (somehow) combined without a conjunction to form a complex VP. This VP is then the complement of a single T node (with other projections in between, presumably[52]). The rough structure of (102a) would then be (103).

(103)[TP I Agr-T [VP [VP agr-buy yams] [VP agr-cook (them)]]].

That there is only one T node in SVCs is seen clearly in examples like (104), where only one TAM prefix or auxiliary appears, and that comes before the first verb of the SVC.

(104) Ibibio (fieldwork, Willie Willie)
> *a. Amin n-sʌk   n-dep   udia n-tem.*
>   I   1SG-PROG 1SG-buy yam 1SG-cook
> "I am buying yams and cooking them."

> *b. Ami ɲ-yaa-dep   udia n-tem.*
>   I   1SG-FUT-buy yam 1SG-cook
> "I will buy yams and cook them."

Similarly, in a negative sentence, a single negation is realized on the first V of the SVC.

Given the possibility of structures like (103), a putative agreeing C could be parsed instead as 'say' functioning as the V2 in an SVC,

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[52]
  In particular, I do not take stand on whether there are two Voice/v heads in an SVC or only one. If the instance of subject agreement that attaches directly to the verb root in Ibibio is agreeing Voice, then there are definitely Voice heads above both of the component VPs in (103).

'say' then selecting a CP complement headed by *ke*, as usual. In other words, (100a) might be analyzed as having the structure in (105a) rather (105b), as I have assumed in the main text.

(105)a. I Agr-T [_{VP} [_{VP} Agr-tell him] [_{VP} Agr-say [_{CP} that TP]]].

      b. I Agr-T [_{VP} Agr-tell him [_{CP} Agr-C [that TP]]]

In fact, the SVC analysis has some real advantages. One relatively easy argument that is often used to show that an agreeing form is a C and not a verb is that it cannot be inflected for categories like tense, aspect, and negation in its putative agreeing C usage in examples like (100). Some take this to show that elements like *bo* and *te* are not verbs in this construction (see Torrence (2016) for Ibibio and Letsholo & Safir (2019) for Ikalanga; Driemel & Kouneli (in press) use this type of argument to support the opposite conclusion, that the erstwhile C really is a verb in Kipsigis). But in Ibibio it is not that easy to rule out a verbal parse, because the inability to bear tense, aspect, and negation morphology is a general property of the second verb in an SVC, attributable to its VP-conjunction-like analysis in (103).

The similarities of putative C-agreement structures and SVCs in Ibibio also extend to certain quirky morphological details of agreement. For example, the special *i*- form of third person agreement that is triggered by logophoric pronouns and traces of *wh*-movement (Baker and Willie 2010) shows up not only on the main/first verb, but also on the second verb of the SVC and on the putative agreeing C (see Torrence 2016, ex (32), (19)). Similarly, negation conditions some special allomorphs of agreement. For example, second person singular subject agreement is normally *a*- but shows up in negative clauses as *u*-. This *u*- form also appears on both the second verb of an SVC and on the putative agreeing C. Third, when T is infinitival *edi*-, it attaches to the first V of an SVC. In that case, the second verb of the SVC bears a special dummy prefix *N*- in the agreement slot, as shown in (106a). This *N*- form also appears on the agreeing C when the matrix verb is an infinitive, as in (106b).

(106)Ibibio (fieldwork, Willie Willie)
      a. *Okon a-maa-yem **edi**-dep udia **n-nọ**   eka ọ̀mọ̀.*
      Okon 3SG-PST-want INF-buy yams X.AGR-give mother his
      "Okon wants to buy yams and give them to his mother."

b. *Okon a-maa-nwana **edi**-dokko Emem **m-bo** ke Ekpe a-yaa-di.*
Okon 3SG-PST-try INF-tell Emem X.AGR-C that Ekpe
3SG-FUT-come
"Okon tried to tell Emem that Ekpe will come."

The SVC analysis also accounts for some obvious surface facts about the construction: the fact that *bo* and *te* cooccur along with ordinary Cs like *ke*, rather than being alternatives to the ordinary C, the fact that they are always optional, and the fact that the agreeing C comes before the ordinary C. If Agr-*bo* and Agr-*te* are really verbs meaning 'say', they take a CP headed by *ke* as a complement, just as when they are the only verb. It is also expected that the verb 'say' comes before the C head of its CP complement in this head initial language.

I have no doubt that these similarities are nonaccidental, and that agreeing Cs in Ibibio evolved out of an SVC construction. But there are ample reasons to say that it has evolved, such that it is not now literally 'say' in a quasi-coordination SVC. I present six reasons.

The first reason to say this is simply that there is no literal 'say' meaning in many examples. This is hard to see when the matrix/first verb is a communication verb like 'say', 'tell', or 'ask', because the meaning of 'say' is redundant in this context. However, *bo* and *te* can appear with a much wider range of verbs than that. For example, they can also appear with verbs of cognition, like 'think' and 'know', as shown in (107a). The grammaticalization literature often explains away such examples by saying that they express a kind of inner speech. For instance, (107a) can (sort of) be glossed as "Okon thought, *saying to himself* that Eno likes him." But it is harder to say that there is any kind of saying meaning associated with the presence of *a-bo* and/or *a-te* over a full range of examples. For instance, these elements are possible with the verb 'hear', as in (107b). There is no sense here that the subject hears the news and then repeats it to others; only that he hears it. Nor do the agreeing Cs add the sense that the hearer accepts the news as true, which is a possible reconstruction of what it would mean to add that he is saying it to himself. Agr-*bo* and Agr-*te* are even fine with the verb 'forget', as in (107c), and they do not change its meaning in any way that I was able to detect. Inner speech seems out here, since Okon is not saying, even to himself, that Ima stole the book. After all, this verb implies that the subject no longer represents the information mentally.

(107) Ibibio (fieldwork, Willie Willie)

       a. Okon ikpǫǫng a-kere a-bo a-te ke Enǫ i-ma imǫ
       Okon only 3SG-think 3SG-C 3SG-C that Enǫ
       3SG.3.LOG.O-like LOG
       "Only Okon thinks that Enǫ likes him."

       b. Okon a-maa-kop (a-bo) (a-te) ke Emem a-maa-due.
       Okon 3SG-PST-hear 3SG-C 3SG-C that Emem 3SG-PST-sin
       "Okon heard that Emem is guilty (but he doesn't believe it)."

       c. Okon a-maa-fre (a-bo) (a-te) ke Ima a-maa-yip ngwet.
       Okon 3SG-PST-forget 3SG-C 3SG-C that Ima 3SG-PST-steal book
       "Okon forgot that Ima stole the book."

In general, Agr-*bo* and/or Agr-*te* are possible with a large range of CP-selecting type verbs in Ibibio, and they rarely if ever contribute anything detectable to the meaning of the sentence. In this respect, their meanings in this context are more like the meaning of *that* in English than like the meaning of *say*.

There are, however, certain classes of verbs that Agr-*bo* and Agr-*te* are not compatible with, and this can be spun as a second argument that they are Cs rather than verbs. In particular, they cannot be used with factive verbs of emotion, as discussed in §2.2; see (108).

(108) Ibibio (Afranaph CCQ, Willie Willie)

       M̀mè ámáḿbré é-mà-é-nèm ésìt (?*e-bo/?*e-te) ké
       ḿbíoḿbré ǫmmǫ́ é-mà-é-kítùnén.
       PL fan 3PL-PST-3PL-sweet heart ?*3PL-C/?*3PL-C that
       team their 3PL-PST-3PL-succeed
       "Fans were happy that their team was successful."

If Agr-*bo* and Agr-*te* were routinely possible as second verbs in an SVC construction, it is not at all clear why examples like this should not be possible. (108) should have a literal gloss along the lines of 'The fans were happy, saying [to themselves/to everyone] that their team was successful.' This seems like a perfectly reasonable thing to say. I see no principled way to distinguish factive emotion verbs from cognitive verbs like 'think' in these terms. In contrast, the agreeing C hypothesis can account for the deviance of (108), since agreeing Cs are known to be incompatible with factive verbs of emotion in Kinande and other languages, which do not have productive SVCs to

cloud the issue. If we analyze *a-bo* and *a-te* as agreeing Cs of the same sort in Ibibio, then the explanation of this fact in Kinande carries over to Ibibio. In particular, I explained this restriction in terms of the semantics of Eval, the head that licenses SoK, the ghostly DP that C agrees with. SoK denotes the person who is uniquely responsible for the content of the TP complement of Eval. This semantics does not fit with factive constructions, where the content of the TP is in the common ground. This explanation carries over to examples like (108) if Agr-*bo* and Agr-*te* are Eval heads rather than verbs.

A third argument for the C status of Agr-*bo* and Agr-*te* comes from the fact that when both of them appear with a complement clause, their order is fixed. Agr-*bo* can come before Agr-*te*, but the reverse order is infelicitous, as shown in (109).

(109) Ibibio (fieldwork, Willie Willie)

??M-beeŋe n-te m-bo yak a-do ke Ima a-maa-kot ŋwet.
1SG-beg 1SG-C 1SG-C that 3SG-be that Ima 3SG-PST-read book
"I hope that Ima read a book." (OK is … *m-bo n-te* …)

If *bo* and *te* are both verbs with the same meaning 'say', there is no good reason why this ordering restriction should hold. Both versions should have the same structure and meaning along the lines of 'I hope and say and say that X.' In contrast, if *bo* and *te* are different C-type functional heads in the same extended projection, we expect them to be rigidly ordered, as functional heads usually are. However, to flesh out this argument, it would be desirable to know exactly what *bo* and *te* are (Force? Fin? Eval?), and I cannot claim to know that.

A fourth argument can be constructed by comparing sentences with putative agreeing Cs like (100) with what we know about order and argument sharing in SVCs in general. Consider again the ordinary example with both 'tell' and Agr-*bo* in (110) (=(100a)).

(110) Ibibio (fieldwork, Willie Willie)

M-ma-n-dọkkọ anye m-bo ke Koko a-maa-bere usọng.
1SG-PST-1SG-tell 3SG 1SG-C that Koko 3SG-PST-open door
"I told him that Koko opened the door."

Considered as an SVC, (110) would be a combination of a triadic verb ('tell') with a dyadic verb ('say'), in which the triadic verb comes first and the dyadic verb comes second, with the shared theme argument appearing overtly with the dyadic verb. We can compare this to ordinary SVCs that have a dyadic verb together with a triadic verb like

'give' that selects two NP objects. There is a robust generalization across many African languages with SVCs that the triadic verb in this sort of SVC cannot come first, but must come second (see Baker (1989) for documentation and a (dated) explanation in terms of the Projection Principle). This generalization holds true in Ibibio too: (111) shows that the combination 'give' - 'sell' is bad, whereas the combination 'sell' - 'give' is good (see also (102c)).

   (111) Ibibio (fieldwork, Willie Willie)
       a. *Ami n-ǹọ̀   Okon ɲ-ɲam ebot.
         I   1SG-give Okon 1SG-sell goat
      "I sold a goat to Okon."

       b. Ami ɲ-ɲam ebot n-nọ   Okon.
         I   1SG-sell goat 1SG-give Okon
      "I sold a goat to Okon."

Some robust principle of ordering and argument sharing in SVCs rules out (111a). All things being equal, that principle should also rule out (110), if that is an SVC, since (110) has the same order and argument sharing pattern that (111a) does. But (110) is fine, and many others like it. That suggests that it is not an SVC, but has a different analysis—one involving an agreeing C.[53]

My fifth argument that Agr-*bo* and Agr-*te* are C-like heads is that they are transparent for selection. If *bo* and *te* are verbs meaning 'say' in examples like (100), then the CP headed by *ke* 'that' should be the complement of 'say' for purposes of selection, not the complement of the first verb. In contrast, if *bo* and *te* are heads inside the extended C-space, then the extended CP as a whole is the complement of the first verb for purposes of selection. Now as it happens, *bo* and *te* as main verbs can select a CP with any C: *ke* declarative, *mme* interrogative, or *yak* subjunctive. This is not too surprising, given the very general meaning of these verbs. (101) above showed both verbs of saying with

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[53]
  The heaviness of the CP could be a factor, penalizing the form 'X say that TP tell Y.' But if that is the only factor, one would think it could be repaired by simply extraposing CP to get 'X say - tell Y that TP', but that is not what we observe either. Iconicity is known to influence the order of verbs in an SVC. But that is not relevant to these examples, since the saying and the telling would refer to the same event, so they are simultaneous, as are the selling and the giving in (111).

a declarative *ke* complement; (112) shows that *bo* can also take an interrogative complement headed by *mme* and a subjunctive complement headed by *yak*. The same is true for *te*.

(112) Ibibio (fieldwork, Willie Willie)

    a. *Emem a-ke-bo mme Okon a-ma-i-kid ímɔ̀.*
    Emem 3SG-PST-say whether Okon 3SG-PST-LOG.O-see LOG
    "Emem said whether Okon saw him."

    b. *Ruth a-bo yak ǹdìtɔ̀ e-nwam ímɔ̀.*
      Ruth 3SG-say that.SBJV children 3PL-help LOG
    "Ruth asked for the boys to help her."

With this in mind, consider main/first verbs in Ibibio that are relatively selective about what kind of CP can be their complement. For example, the verb 'ask' in Ibibio selects interrogative *mme*, but not declarative *ke,* like its English counterpart:

(113) Ibibio (fieldwork, Willie Willie)

    a. *Emem a-ke-bip mme Okon a-ma-i-kid ímɔ̀.*
    Emem 3SG-PST-ask whether Okon 3SG-PST-LOG.O-see LOG
    "Emem asked whether Okon saw him."

    b. **Okon a-maa-bip ke Ekpe a-maa-dep ngwet.*
      Okon 3SG-PST-ask that Ekpe 3SG-PST-buy book
    ("Okon asked that Ekpe bought a book.")

Now crucially the contrast between (113a) and (113b) is unchanged if agreeing *bo* or agreeing *te* is included in the structure as well: 'ask *bo mme…*' and 'ask *te mme…*' are possible, but 'ask *bo ke…*' and 'ask *te ke…*' are not, as shown in (114).

(114) Ibibio (fieldwork, Willie Willie)

    a. *Emem a-ke-bip a-bo/a-te mme Okon a-ma-i-kid ímɔ̀.*
    Emem 3SG-PST-ask 3SG-C/3SG-C whether Okon 3SG-PST-LOG.O-see LOG
    "Emem asked whether Okon saw him."

    b. **Okon a-maa-bip a-bo/a-te ke Ekpe a-maa-dep ngwet.*
    Okon 3SG-PST-ask 3SG-C/3SG-C that Ekpe 3SG-PST-buy book
    ("Okon asked that Ekpe bought a book.")

If the *ke* clause in (114b) was semantically the complement of 'say', we would wrongly expect the example to be good, as the examples in (101) are. In contrast, if the *ke* clause in (114b) is semantically the complement of 'ask', with Agr-*bo* and Agr-*te* just meaningless heads in the same extended projection, then we correctly expect (114b) to be bad, as (113b) is. The second prediction is the correct one. Another version of this argument can be constructed using the verb 'beg/hope' in Ibibio. This verb selects for a CP with a subjunctive complementizer *yak*, and is bad if its complement has the declarative complementizer *ke*. This pattern is unchanged if *bo* and/or *te* are present as well: 'beg Agr-*bo*/Agr-*te* yak…' is possible, but 'beg Agr-*bo*/Agr-*te* ke …' is not, even though *bo* and *te* by themselves are compatible with *ke* complements. We can tentatively capture these facts by saying that *ke* is [declarative], *mme* is [interrogative] and *yak* is [subjunctive], and these features are inherited upward, throughout the extended projection of CP, allowing the verb to select for the kind of complement it needs whether additional heads are present or not. (Semantically oriented analogs of this idea would also be feasible.)

My sixth and final argument that Agr-*bo* and Agr-*te* are C-type heads in Ibibio is that they are possible in noun-complement constructions, as we saw in section 2.3.4, following Diercks's (2013) observation about Lubukusu. Two examples are repeated in (115).

(115) Ibibio (fieldwork, Willie Willie)

a. *Emem a-maa-dọkkọ Ekpe [mbʌk [(a-bo) ke Okon a-maa-due]].*
Emem 3SG-PST-tell Ekpe news 3SG-C that Okon 3SG-PST-sin
"Emem told Ekpe the news that Okon was guilty."

b. *Emem a-me-kop [mbʌk [(a-bo) ke Okon a-maa-due]]*
Emem 3SG-PERF-hear news 3SG-C that Okon 3SG-PST-sin
"Emem heard the news that Okon was guilty."

We also saw evidence that the putative CP here forms a constituent with the noun 'news', in that focus fronting can move 'news'+CP as a unit, but it cannot move 'news' stranding CP.

(116) Ibibio (fieldwork, Willie Willie)

        a. *[Mbʌk ke Okon a-ke-due] ke Emem a-ke-dọkkọ Ima.*
        news that Okon 3SG-PST-guilty FOC Emem 3SG-PST-tell Ima
        "It's the news that Okon was guilty that Emen told Ima."

        b. **Mbʌk ke Emem a-ke-dọkkọ Ima -- [ke Okon a-maa-due].*
        news FOC Emem 3SG-PST-tell Ima that Okon 3SG-PST-guilty
        (lit. "It's the news that Emem told Ima that Okon was guilty.")

If Agr-*bo* is an agreeing C, then there is nothing too remarkable about examples like (115); they are simply CPs which are complements (or appositive adjuncts) of a noun head. However, these have no plausible parse according to which *bo* is the verb 'say' in an SVC. The best try for (115b) would be as a VP conjunction like 'Emem [heard news] <and> [said that Okon is guilty].' But this has the wrong meaning, implying that Emem said that Okon is guilty and not strictly asserting that what Emem heard was that Okon was guilty. Moreover, [news + CP] is patently not a constituent in this parse; rather 'news' is the object of the first verb 'hear' and 'say'+CP is the second VP in a VP conjunction structure. If *bo* is always a verb, then this material should not be able to move as a unit. Thus, the analysis that Agr-*bo* is a complementizer fits better here as well.

I conclude that there is ample evidence that Agr-*bo* and Agr-*te* are synchronically agreeing Cs in Ibibio, not just second verbs in a serial verb construction.