A "weaker version" of *also*? — The K'iche' additive particle *choqe'*[*]

Dan Bridges Velleman

University of Texas at Austin

1.   Introduction

It has become common, in formal semantics, to distinguish "weak" (easily accommodated) and "strong" (inaccommodable) presuppositions. The distinction has not been studied in many languages; but in one of the few languages where it has been studied, it has yielded one of the most striking claims in semantic typology — the claim that St'át'imcets, a Salish language, has *no strong presuppositions whatsoever* (Matthewson 2006). This suggests that more careful work on the subject, in more languages and more language families, is warranted.

This paper presents evidence for a more subtle sort of variation. K'iche',[1] a Mayan language of western Guatemala, is shown to *have* strong presupposition triggers. In particular, pronouns trigger strong presuppositions in K'iche' just as they do in English. But the class of strong presupposition triggers is smaller in K'iche' than it is in other well-studied languages. In particular, while English additive particles such as *also* trigger strong presuppositions, the K'iche' additive particle *choqe'* triggers weak ones.

Though it only concerns a single lexical item, this result nevertheless has important results for semantic typology, for it shows that we are not just dealing with a single parameter (i.e. "Some languages *have* strong presuppositions, and some languages *don't*"). Rather,

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1. In this paper I use the official orthography for K'iche' as promulgated by the ALMG. This orthography is "defective" in the linguistic sense of the word, in that it does not represent vowel length. (For instance, the second vowel in the name of the language itself is long, and yet it is officially spelled *K'iche'* rather than *K'ichee'*.) But in fact, for many Mayan language activists — and for the K'iche' speakers I have worked with on this paper — this "defect" is felt to be a strength. The reason is that vowel length is a major site of dialect variation. An author who indicates long vowels is forced to write in the manner of a single town or region. By omitting vowel length, the ALMG has produced a "pan-K'iche'" orthography; and the unity and inclusiveness which this signals are widely felt to be more important than perfect phonemic accuracy.

In any case, vowel length is not relevant to any issues discussed in this paper.

we must specify *for each trigger* in each language whether its triggered presupposition is strong or weak.

1.1   Projection and related properties

A natural language expression may license a number of different inferences. I will refer to these inferences here as "meaning components"; taken together, they comprise the meaning of the expression. It has long been noted that some expressions trigger meaning components that *project* — or, in other words, that survive even when the triggering expression is embedded under an operator such as negation. (The first discussion of the phenomenon now known as "projection" is found in Frege (1892). The term "projection" is due to Langendoen and Savin (1971).)

Projection is most often discussed as a distinctive property of presuppositions. But in fact it is clear that we need to distinguish several types of projective meaning. Chierchia and McConnell-Ginet (1990) note that the contents of English non-restrictive relative clauses do project, but do not have other properties traditionally associated with presuppositions. In particular, there is no expectation that the content of a non-restrictive relative clause should already be present in the common ground. Potts (2005) proposes that non-restrictive relatives, along with parentheticals, expressives and honorifics, make up a second class of projective meaning components, which he describes following Grice (1975) as conventional implicatures. As well as distinguishing presuppositions from conventional implicatures, it has been suggested that we should recognize several types of presupposition, with one major distinction being between those presuppositions that cannot be accommodated (and so must already be entailed by the common ground) and those that can be. Meanwhile, it has been noted that some entailed content can project. This is often seen in cases of marked narrow focus: entailed meaning components that are triggered entirely by the unfocused part of a clause will project when the clause is embedded. Levinson (1983) noted that even certain conversational implicatures can project.

This all raises the question of what our taxonomy of projective meaning ought to look like: how many categories of projective meaning we should recognize, and what relationship we should posit between them. There are two sets of considerations that bear on this question. On the one hand, there are theoretical issues such as elegance, parsimony and explanatory power. But the question is first and foremost an empirical one. What motivates us to make these distinctions between various kinds of projective meaning component is the fact that there are observable differences in behavior between them.

Another question arises when we look at the broader crosslinguistic picture. It is tempting to assume that the taxonomy of projective meaning types will be the same across languages, so that for instance if a distinction between presuppositions and implicatures is relevant to English semantics, we can expect it to be equally relevant to the semantics of any other language. But we do not have much evidence that this assumption is warranted. First off, there is little relevant evidence one way or another, just because most work on projective meaning has been done on a small number of well-studied European languages. And what's more, the crosslinguistic work that has been done has yielded some evidence *against* the proposition that there is a universal taxonomy of projective meaning. Matthew-

	Projects?	C.F.C.?	L.E.?
Class A	yes	yes	yes
Class B	yes		
Class C	yes		yes
Class D	yes	yes	

Table 0.1: Projective meaning classes

son's (2006) fieldwork suggests that St'át'imcets does not have presuppositions that act as a constraint on the common ground, as languages like English do.

1.2   Diagnostics

Tonhauser et al. (2011) propose a fieldwork protocol to address these questions. It consists of diagnostics for projection and for two other relevant properties. We can describe the properties tested for as follows in (1), though as we will see these descriptions are somewhat imprecise. The property of imposing a *contextual felicity constraint* or CFC (1b) has been used to distinguish "strong" from "weak" presuppositions. The property of having a mandatory *local effect* or LE (1c) has been less discussed, though for instance Gazdar (1979) and Potts (2005) have observed that different kinds of projective meaning component do vary in this respect.

(1)   Let *S* be a sentence containing an expression *t* which triggers the inference that ϕ.

   a.   Do "family of sentences" variants of *S*, such as "not *S*", "maybe *S*" or "if *S* then *R*", also imply ϕ? If so, ϕ is said to *project*.

   b.   Can *S* be uttered in a context where ϕ is not already in the common ground? (That is, can ϕ be informative?) If not, ϕ is said to impose a *contextual felicity constraint (*CFC*)*.

   c.   If *S* is embedded under some operator that creates a local context (such as a propositional attitude predicate), is ϕ necessarily contributed to the local context? If so, ϕ is said to have a *local effect (*LE*)*.

These diagnostics have been designed to be applicable in a traditional fieldwork context, in which the researcher does not have native fluency in the language of interest and is working with a native speaker consultant who has not had any linguistic training. The Tonhauser et al. paper gives data from two languages: English data based on native speaker intuition, and Guaraní data from Tonhauser's fieldwork on the language.

Tonhauser et al. find four classes of projective content, distinguished by different combinations of the properties given above (Table 1). Interestingly, in their data they find that comparable English and Guaraní projective meaning components always fall into the same class. Several examples are seen in Table 2: for instance, the prejacent of English *only* falls into the same class as the prejacent of Guaraní *-nte* 'only'; expressive meanings in English fall into the same class as expressive meanings in Guaraní; and so on.

Meaning type	*English*	*Guaraní*	*K'ichee'*
Existence of referent	A	A	A
Expressive content	B	B	B
Prejacent of *only*	C	C	C
Additive implication	A	A	C

Table 0.2: Examples of classification across languages

I will show that in the Mayan language K'ichee', all four classes of projective meaning are *attested* — but not all four have the same membership. In particular, while the English additive particle *also* and the Guaraní additive particle *avei* are both members of class A, the K'ichee' additive particle *choqe'* is a member of class C.

1.3   Methods

The question of proper methodology for semantic fieldwork has begun to receive considerable attention. Matthewson (2004) lays down guidelines that have become standard. She insists that the only legitimate sources of semantic data are truth-value and felicity judgments. These judgments must be made in a specific and explicit context. (Thus, asking about the truth-*conditions* of an expression — "Can you describe what sorts of situations you could say *x* in" — is not legitimate.) To this, Tonhauser et al. (2011) suggest that a third source of data be added: *implication* judgments, in which a speaker is asked what they would infer from hearing a sentence in a particular context.

There are several ways of eliciting inference judgments. One, which has been successfully used in experimental research on semantics,[2] asks participants to assess whether a particular implication follows from an utterance. But there is the worry that this task, being somewhat abstract, is too easy for participants to misunderstand. One way of addressing this worry, and the one which Tonhauser et al. use, is to set up a hypothetical situation in which an agent has beliefs and desires that will lead to a certain *action* if they conclude that some further proposition ϕ is true. Then, rather than asking if ϕ follows from an utterance, the researcher may simply ask what the agent would *do* upon hearing that utterance. For instance, in probing the meaning of the Guaraní word *aimete* 'almost,' they offer the following example, and ask whether Maria will then want to interview Raul. A "yes" answer confirms that *aimete* does contribute a proximal implication in this context.

(2)   *Context* Maria wants to interview people who had a near-death experience. Paula tells her about her neighbor Raul:

Raul   aimete   o-mano.
Raul   almost   A3-die

"Raul almost died."

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2. See, for instance, experiments discussed in Geurts et al. 2010, Schwarz 2007, Beaver and Clark 2008

Another way of addressing this worry, and the one I opted for in this work, is to directly elicit implication judgments, but to assist participants in making the necessary judgments with a hypothetical situation that *raises a salient question* which the inference of interest would answer. So for instance, rather than asking out of the blue whether the phrase *le r-achajil* 'her husband' implies that the person being discussed has a husband, we can set up a situation in which an agent has set out to discover someone's marital status and ask what that person would conclude from a sentence containing the phrase.[3]

(3) *Context* Juan has just met María. He thinks she is very good-looking, and he is wondering if she is single or married. One day Juan is walking with a friend and they pass by María, who is talking on her cell phone. Juan's friend says:

    Tajin k-u-ch'ab'ej   le   r-achajil.
    PROG INC-A3s-talk.to DET A3s-husband

    "She's talking to her husband."

2.   Contextual felicity

As mentioned above, there is a tradition of distinguishing between "strong" inaccommodable presuppositions and "weak" accommodable ones. The crucial difference is that expressions with a strong presupposition impose a *contextual felicity constraint*.

Paraphrasing slightly from Tonhauser et al, we can define and diagnose contextual felicity constraints as follows:

(4) **m-positive and m-neutral** An m-positive context is one which entails m. An m-neutral context is one which entails neither m nor $\neg m$.

(5) **Contextual felicity** If a trigger t of meaning component m imposes a contextual felicity constraint with respect to m iff the use of t is felicitous only in an m-positive context.

(6) **Diagnostic for contextual felicity**

    a.   If a sentence containing t is felicitous in an m-neutral context, then t does not impose a contextual felicity constraint with respect to m.

    b.   If a sentence containing t is (i) infelicitous in an m-neutral context, but (ii) felicitous in an m-positive context, then t imposes a contextual felicity constraint with

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3. Of course, we could also ask e.g. "Will Juan try to flirt with María?" rather than "Will Juan conclude that María is married?" I found, though, that this made the task more difficult. (In this example my consultant's initial response to the question was "How should I know? Juan might be too shy to flirt with a stranger. Anyway, it might embarrass her — he should wait until he knows her better." This is good culturally-appropriate advice for a young K'iche' man going out courting; but from a linguistic point of view it's an irrelevant distraction.)

  In general, once I set up the inference judgment task in an appropriate way, my consultant had clearer and more easily accessed intuitions about *inference* than he did about *conditional action*. My suspicion is that different ways of framing the task will work better at different field sites, or even with different consultants at a single field site; the best approach is probably to try both and see which one goes more smoothly.

respect to *m*.

In English, one of the classic examples of a CFC-imposing trigger is the additive particle *also*. For instance, the use of *also* in (7) implies that Sam will not be the only one having dinner in New York tonight — the so-called *additive implication* of the particle. And as Kripke (2009) pointed out, this implication is likely to be true in any context of utterance. And yet this is not enough to make (7) felicitous in any context. Rather, (7) is only felicitous in contexts in which it is *already salient* that some specific person other than Sam will be having dinner in New York tonight.

(7)   SAM is having dinner in New York tonight, too.

To put it in more formal terms: if $m = [\![$*Someone other than Sam is having dinner in New York tonight*$]\!]$, then (7) is infelicitous in *m*-neutral contexts, and felicitous in *m*-positive contexts. And this suggests that *m* is imposed as a CFC by (7).

Tonhauser et al show that the same is true for *avei*, an additive particle used in Paraguayan Guaraní. In (8), the use of *avei* triggers the implication *m* that someone besides the bus driver is eating empanadas. In an *m*-neutral context such as (9a), (8) is infelicitous. On the other hand, in an *m*-positive context such as (9b), it becomes felicitous. This, they argue, shows that *avei* imposes a contextual felicity constraint with respect to its additive implication.

(8)   *Ñande-chofeur o-karu empanáda avei.*
       A1p.INC-driver A3-eat empanada too

       "Our bus driver is eating empanadas too."

(9)   a. #*Context:* Malena is eating her lunch, a hamburger, on the bus going into town. A woman who she doesn't know sits down next to her and says (8).

       b. *Context:* Malena is eating her lunch, an empanada, on the bus going into town. A woman who she doesn't know sits down next to her and says (8).

By contrast, while the K'ichee' particle *choqe'* does introduce an additive meaning component,[4] it does not seem to impose a contextual felicity constraint with respect to this component. According to my consultant, sentences with *choqe'* do have an additive implication; it is just that this implication may be new information at the time of utterance. For instance, from (10), my informant feels that Daniel can infer that other people besides Juan's mother showed up at the party. But on the other hand, (10) is perfectly felicitous even in a context where the common ground does not already include this information. In this respect, *choqe'* is behaving less like English *also* or *too* and more like *among other (people/things/places...)*.

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4. See the next section for confirmation of this claim.

(10) Situation: Daniel is new to town and doesn't know any of the local gossip. He is talking to Juan, and hears that Juan threw a party recently. Daniel asks how it went, and Juan says "Pretty good…"

      Choqe' le nu-nan x-b'ek.
      also DET A1s-mother CPL-went

      "My mom, too, showed up" or "My mom, among other people, showed up."

Here a few more examples. In Tonhauser et al., the English and Guaraní equivalents of (11) are used to show a contextual felicity constraint for *also* (or Guaraní *avei* 'also'). In both languages, the sentence in (11) is infelicitous in Situation 1, but felicitous in Situation 2. In K'ichee', on the other hand, (11) is felicitous in *both* situations. And (12) gives one last example of the evidence against a contextual felicity constraint.

(11) Situation 1: Juan is a Nahualeño attending school in the United States. None of his classmates have heard of K'iche', or could name any towns where it is spoken. Juan has been asked to give a presentation about his hometown. He begins by saying…

      Situation 2: Juan is a Nahualeño attending school in nearby Totonicapan, where most of the students speak K'iche' themselves. Juan has been asked to give a presentation about his hometown. He begins by saying…

      Choqe' pa Nahualá, k-e-ch'aw pa K'iche'.
      also PREP Nahualá INC-B3p-speak PREP K'ichee'

      "In Nahualá, too, they speak K'ichee'." or "In Nahualá, among other places, they speak K'ichee'."

(12) Situation: Juan is working for the census. He has to go to every house to find out how many K'iche'-speakers live there. When Juan arrives at don Pedro's house, nobody is home, so he tries asking the neighbors. The neighbors tell him…

      Choqe' le tat Lu', ka-ch'aw pa K'iche'.
      also DET don Pedro INC-speak PREP K'ichee'

      "Don Pedro, too, speaks K'ichee'." or "Don Pedro, among other people, speaks K'ichee'."

Note that K'iche' does still *have* triggers that impose a CFC. It's just that *choqe'* is not among them. But for instance, K'iche' pronouns still impose a CFC with respect to the identifiability of their referent, just as English pronouns do. In an *m*-neutral context — one that does not make salient a suitable referent — both English *he* and the K'iche' (gender-neutral) third-person singular pronoun *are'* are infelicitous. A referent cannot simply be accommodated.

(13) *Context:* John has just transferred to a new school, and has been asked to tell the classmates about himself and his family. None of his new classmates know anyone in John's family. John begins his presentation by saying. . .

  # *Ri   are', tikonel.*
     DET 3sg   planter

    "He's a farmer."

In an *m*-positive context — one in which a suitable referent has been made salient in some way — felicity is restored.

(14) *Same context:* John begins his presentation by *holding up a picture of his father* and saying. . .

  Ri   are', tikonel.
   DET 3sg   planter

    "He's a farmer."

3.   *Choqe'* and *also*

In other words, we are not looking at a CFC-less language like St'át'imcets has been claimed to be. It is not that K'iche' generally lacks CFC-imposing triggers. It is just that this one particular trigger, whose nearest English and Guaraní counterparts do impose CFCs, fails to impose one in K'iche'.

But wait. How can we be sure that *choqe'* really does correspond to English *also*? It is standardly offered as a translation for *also* (or for Spanish *también*), but translation data like this is notoriously unreliable (see Matthewson 2004 among others). We want clear systematic evidence that *choqe'* and *also* have the same properties. In this case, this means showing that *choqe'*:

- introduces an additive meaning component

- does not introduce other meaning components

- associates with foci or contrastive topics

3.1   *Choqe'* has a projective additive meaning component

We have seen that sentences with *choqe'* are felicitous in *m*-neutral contexts — contexts that would entail neither the truth nor the falsehood of an additive meaning component. But in *m-negative* contexts, the same sentences become badly infelicitous.

(15) #*Xa jun winaq x-b'ek. Choqe' le   nu-nan   x-b'ek.*
     only one person CPL-go also   DET A1s-mother CPL-go

    "Only one person went. My mom, among other people, went."

    Comment: "It sounds like you changed your mind halfway through. Like you realized a second person did go."

And similarly, contradicting the additive component after the fact leads to infelicity.

(16) #*Choqe' le   nu-nan   x-b'ek. Y   na   x-b'e   ta   jun chik.*
     also   DET A1s-mother CPL-go and NEG CPL-go IRR one more
     "My mom, among other people, went. And nobody else went."

(17) #*Choqe' pa   Sacapulas, k-e-ch'aw   pa   Sakapulteko. Y   na   k'o*
     also   PREP Sacapulas INC-B3s-talk PREP Sakapulteko. and NEG EXS
     to   jun chi   k'olb'al jawi k-e-ch'aw   wi je   la'.
     IRR one more place   where INC-B3s-talk FOC like that
     "In Sacapulas, among other places, they speak Sakapulteko.[5]And there's no other place where it's spoken (*lit.* "where they talk that way")."

This shows that the additive meaning component is indeed present — and also that it is not a cancellable pragmatic inference, but a lexically specified part of the meaning of *choqe'*.

    We can also show, using the "family of sentences" test, that the additive component projects. The following sentence, in which the *choqe'*-bearing clause is embedded in a counterfactual conditional, is felicitous in its own right.

(18) *We ta   choqe' le   nu-nan   x-b'ek, sib'alaj ta   ne*
     if   IRR also   DET A1s-mother CPL-go very   IRR SCAL
     x-in-ki'kot-ik.
     CPL-B1s-happy-SS
     "If my mom had gone too, I'd have been really happy."

But it becomes infelicitous in a context where the additive meaning component is explicitly contradicted, showing that this component has projected through the conditional.

(19) #*Maj   jun winaq x-b'ek. We ta   choqe' le   nu-nan   x-b'ek*
     NEG.EXS one person CPL-go if   IRR also   DET A1s-mother CPL-go
     sib'alaj ta   ne   x-in-ki'kot-ik.
     very   IRR SCAL CPL-B1s-happy-SS
     "Nobody went. If my mom had gone too, I'd have been really happy."

3.2   *Choqe'* is not *even*

Across languages, in addition to "pure" additive particles such as *also,* we find scalar-additive particles such as *even.* Scalar-additive particles introduce both an additive meaning component and a *scalar* one, as exemplified in (20). But there is an additional difference between scalar-additive and "pure" additive particles. With scalar-additive particles, the additive component is *not* imposed as a contextual felicity constraint. That is, if *m* refers to this additive meaning component, then (20) is felicitous in *m*-neutral contexts.

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5. Note that without *choqe'* or "among other places," this would be not only felicitous but *true*. Sakapulteko is a Mayan language with a very small community of speakers, restricted to a single municipality.

(20)   Even SAM is having dinner in New York tonight.

    a.   *Additive implication:* People other than Sam are having dinner in New York tonight.

    b.   *Scalar implication:* Sam is less likely than other people to be having dinner in New York tonight.

One might worry, then, that the proper comparison is not between *choqe'* and *also*, but between *choqe'* and *even*. If that were the case, we'd have no evidence of cross-linguistic difference here: *even* imposes no contextual felicity constraint, and neither does *choqe'*.

    Here is some evidence that this worry is unfounded. Scalar-additive particles such as *even* mark "strong" or surprising propositions, and are infelicitous with "weak" or unsurprising propositions. In particular, if q is stronger than p, then "p and even q" is felicitous, but "q and even p" is not.

(21)   *Context:* Juan's children love going to the fair and riding the rides. Juan's mother normally hates everything about the fair: the long bus ride to get there, the crowds, the noise. But this once she's agreed to go.

    a.   Let's go to the fair. The kids want to go. Even my mother wants to go.

    b.   #Let's go to the fair. My mother wants to go. Even the kids want to go.

A pure additive particle, on the other hand, imposes no such requirement of increasing strength: "p and also q" and "q and also p" are equally felicitous.[6]

(22)   *Same context:*

    a.   Let's go to the fair. The kids want to go. My mother also wants to go.

    b.   Let's go to the fair. My mother wants to go. The kids also want to go.

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6. Now, it's not always the case that both are fully felicitous: if there is a large enough discrepancy between p and q, speakers will judge both "p also q" and "q also p" to be odd.

(i)   a.#His wife left him. Also, she stole his cigarette lighter.

    b.#His wife stole his cigarette lighter. Also, she left him.

(Note that (ia) can be interpreted as sarcastic, or as a witty way of implying that the subject never did care much about his wife; (ib) is perhaps harder to interpret as a joke, since the "punchline" — the incongruous element — is not at the end. But given standard assumptions about the relative importance of marriage and disposable lighters, neither sentence has a felicitous non-joke reading.)

    A similar oddity arises from uses of K'iche' *choqe'* in this sort of situation:

(ii)   a.#*X-ki-jach*   *k-ib'.*   *I*   *ri*   *are', choqe' x-u-k'am*   *b'i*   *le*   *azadon.*
      CPL-A3p-split A3p-self and DET she   also   CPL-A3s-take away DET hoe

      "They split up. And she also took the hoe."

    b.#*X-u-k'am*   *b'i*   *le*   *azadon. I*   *choqe' x-ki-jach*   *k-ib'.*
      CPL-A3s-take away DET hoe   and also   CPL-A3p-split A3p-self

      "She took the hoe. And they also split up."

    In both languages the issue here is simply incongruity. Except for the sake of comic timing, the order of conjuncts does not matter. What is strange is mentioning them in the same breath in the first place.

The K'iche' particle *choqe'* follows the pure additive pattern here: "*p choqe' q*" and "*q choqe' p*" are both equally felicitous.

(23) *Same context:*

    a. *K-oj-b'e   pa   nimaq'ij. Le   ak'al-ab' ka-k-aj   k-e-b'ek,*
       INC-B1p-go PREP festival   DET kid-PL   INC-A3p-want INC-B3p-go

       choqe' le   nu-nan   ka-r-aj   ka-b'ek.
       also   DET A1s-mother INC-A3s-want INC-go

       "We're going to the festival. The kids want to go; also my mother wants to go."

    b. *K-oj-b'e   pa   nimaq'ij. Le   nu-nan   ka-r-aj   ka-b'ek,*
       INC-B1p-go PREP festival   DET A1s-mother INC-A3s-want INC-go

       choqe' le   ak'al-ab' ka-k-aj   k-e-b'ek.
       also   DET kid-PL   INC-A3p-want INC-B3p-go

       "We're going to the festival. My mother wants to go; also the kids want to go."

So we've seen that *choqe'* has a pure additive meaning like that of English *also* — but that, unlike *also*, it does not impose a CFC with respect to this meaning.

3.3 *Choqe'* is not *and*

The other crucial property of *choqe'* which I want to show here is that it is IS-sensitive: like English *also*, it associates either with a focus or with a contrastive topic.

    This is complicated slightly by the fact that we still do not have a complete account of focus-marking in K'iche'. It has long been described as a positional-focus language, in which focused constituents always move to a specific "slot" in the left periphery (Norman 1977, Larsen 1988, López Ixcoy 1997). But I have argued elsewhere that this is only half of the picture (Velleman 2012). Foci may, in many cases, also remain *in situ*. They are presumably given some sort of prosodic prominence when they occur in situ, but the details have not yet been described. Similarly, topics have long been described as being marked by left-dislocation; but it is also possible for constituents playing a contrastive-topic-like role to occur *in situ*.

(24) A: *La utz   k-iw-il-o?*
       Q   good INC-A2p-see-SS

       "Do y'all like it?" (*lit.* "Do y'all see it as good?")

    B: *K-in-b'ij   in chi utz; par k-u-b'ij   ri   are' chi na   utz taj.*
       INC-A1s-say 1sg that good but INC-A3s-say DET 3sg that NEG good IRR

       "[I]$_{CT}$ say it's good; but [he]$_{CT}$ says it's no good.

Nevertheless, there are two pieces of evidence that we can muster to show that *choqe'* is IS-sensitive. The first is that *when* it occurs in a clause where a constituent has moved to an IS-marked position, it will associate semantically with that moved constituent. So for instance, (25) needs an antecedent of the form "*x* arrived" rather than one of the form

"*x* happened" or "Juan did *x*." This demonstrates that *choqe'* is obligatorily associating with the moved constituent *ri a Xwan* "Juan."

(25) *Choqe' ri   a   Xwan, x-opan-ik.*
     also   DET youth Juan   CPL-arrive-SS

     "Also Juan arrived."

    a.   *Context:* Someone else arrived, and Juan did too.

    b. #*Context:* Something else happened, and Juan arrived too.

    c. #*Context:* Juan did something else, and he arrived too.

(The examples below demonstrate the contextual felicity judgments summarized in (25).)

(26) *Jachin x-opan-ik?   Pues, ri   al   Talin,   x-opan-ik.   Choqe' ri*
     who   CPL-arrive-SS well   DET miss Catalina CPL-arrive-SS also   DET
     a   Xwan, x-opan-ik.
     youth Juan   CPL-arrive-SS

     "Who arrived? Well, [Catalina]$_{CT}$ arrived. Also, [Juan]$_{CT}$ arrived."

(27) #*Jas   x-k'ulmataj-ik? Pues, x-el   b'i   ri   al   Talin. Choqe' ri*
     what CPL-happen-SS well   CPL-exit away DET miss Catalina also   DET
     a   Xwan, x-opan-ik.
     youth Juan   CPL-arrive-ss

    Intended: "What happened? Well, [Catalina left.]$_F$ Also, [Juan arrived.]$_F$

(28) #*Jas   x-u-b'an   ri   a   Xwan? Pues, nab'e, ri   a   Xwan*
     what CPL-A3s-do DET youth Juan   well   first   DET youth Juan
     x-oj-u-ch'ab'e-j   loq. Te k'u ri', choqe' ri   a   Xwan,
     CPL-B1p-A3s-talk.to-SS hither then   also   DET youth Juan
     x-opan-ik.
     CPL-arrive-SS

    Intended: "What did Juan do? Well, first Juan [called us.]$_F$ And then Juan also [arrived.]$_F$

Finally, replacing *choqe'* with *i* "and" in the above examples does result in felicity in all three cases. This shows a clear contrast between the focus-sensitive particle *choqe'* and the ordinary conjunction *i*.[7]

    The second bit of evidence shows that *choqe'* will associate with in-situ topics and foci as well as moved ones, and has to do with independent pronouns. K'iche' is a strongly headmarking language. Verbs agree with all their arguments, nouns agree with their possessors, and most preposition-like words (known as "relational nouns" in the Mayanist literature, and similar to conjugated prepositions in Celtic languages) agree with their ob-

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7. *I* is clearly a loan from Spanish *y* "and." But it is quite common even in the speech of older monolingual K'iche'-speakers who exhibit little or no code-switching, and must at this point be regarded as a part of the K'iche' language.

ject. NPs and pronouns can be omitted if their referent is clear from context; this means that in particular, first- and second-person singular pronouns are almost always omissible, since there is rarely any doubt as to their referent.

(29) *K-in-wa'-ik.*[9]   (30) *K-in-wa'   in.*
     ING-B1s-eat-SS   ING-B1s-eat 1sg
     "I'm eating."   "I'm eating."

But when a NP or pronoun is a narrow focus or topic, it cannot be omitted. Thus for instance, both (29) and (30) are grammatical sentences, and both are felicitous in out-of-the-blue contexts, but (29) would be infelicitous as an answer to the question "Who's still eating?" or as part of a contrastive topic strategy (e.g. "[I'm]$_{CT}$ eating but [John]$_{CT}$ isn't").

This leads to the following prediction: if *choqe'* is sensitive to information structure, then a sentence with *choqe'* and an overt pronoun ought to have at least one more reading than the same sentence with no overt pronoun. For instance, we predict that (31) will have at least two readings — one in which *choqe'* associates with the first-person singular pronoun *in*, and one in which it does not — and that (32) will lack the first of these two readings.

(31) *Choqe' k-in-wa'   in.*
     also   INC-B1s-eat 1sg
    a. "[I]$_F$, too, am eating." (Other people are eating, and so am I.)

    b. "Also, [I'm eating]$_F$." (Other things are happening, and in addition I'm eating.)

(32) *Choqe' k-in-wa'-ik.*
     also   INC-B1s-eat
    a. #"[I]$_F$, too, am eating." (Other people are eating, and so am I.)

    b. "Also, [I'm eating]$_F$." (Other things are happening, and in addition I'm eating.)

And this is precisely what we find, as the felicity judgments in (33) show.

(33) A:*K-in-wa'-ik.*
     INC-B1s-eat-SS

     "I'm eating."

    B:*Choqe' k-in-wa'   in.*
     also   INC-B1s-eat 1sg

     "I, too, am eating."

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9. The affix *-ik*, which occurs in (29) and not in (30), makes no syntactic or semantic contribution. Indeed, we can analyze the affix as being present in both examples, but as taking an overt allomorph in (29) and a silent allomorph in (30). See Henderson 2012 for an analysis of this allomorphy, which is prosodically driven — the overt allomorph surfaces at the end of an intonational phrase, and the silent allomorph surfaces elsewhere.

(34)   A:*K-in-wa'-ik.*
     INC-B1s-eat-SS
     "I'm eating."

  #B:*Choqe'   k-in-wa'-ik.*
     also   INC-B1s-eat-SS
     Intended meaning: "I, too, am eating."

4.   Discussion

So we have seen that *choqe'* has all of the major semantic properties of English *also* except for one. It is a focus-sensitive, purely additive particle, just as *also* is. But unlike *also,* its additive meaning component does not impose a contextual felicity constraint. *Choqe'* is a weak presupposition trigger, while its English counterpart *also* is a strong one.

    We have also seen that K'iche' does have strong presupposition triggers. In particular, the third person singular pronoun triggers strong presuppositions in K'iche' just as it does in English.

    This suggests that in this particular area of semantics, there is room for microparametric variation between languages. So far we have seen three patterns: in English and Guaraní, pronouns and additive particles are both strong presupposition triggers. In K'iche', pronouns are strong presupposition triggers but additive particles are not. In St'át'imcets, neither pronouns nor additive particles are strong presupposition triggers. It makes sense to ask at this point whether a fourth pattern is possible: could there be a language in which additive particles are strong presupposition triggers but pronouns are not?

    This result is also relevant to the question of how semantic theory should explain or model the strong/weak distinction. Confronted with a particular strong presupposition trigger, it is tempting to try to explain its strength, to offer some reason why its triggered presupposition *must* be strong. Kripke (2009), on *also*, offers this sort of explanatory story: *also*, he says, is necessarily anaphoric, and this means its additive meaning component must be strong. But if *choqe'* and *also* are truly semantic counterparts, as I have argued, then this sort of explanation is overreaching, trying to explain as necessary a merely contingent fact. Perhaps it is better to treat *also*'s strong-presupposition-trigger status as something that is merely lexically specified, and has no deeper explanation than that.

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Department of Linguistics
CAL 501
Mailcode B5100
Austin, Texas 78712

dvelleman@gmail.com