DOCUMENTING TOPIC AND FOCUS[1]

Judith Aissen

University of California, Santa Cruz

We concentrate here on the information structure relations *topic* and *focus*, and on their contrastive versions (*contrastive focus* and *contrastive topic*). All four depend crucially on discourse context. Although topic and focus are sometimes viewed as complementary relations, in fact they belong to distinct dimensions of information structure, with one (focus) having to do with the locus of new information in an utterance, and the other (topic) with the entity that the utterance is about. For each, we will try to understand [1] what is the nature of the relation? [2] how is it marked cross-linguistically? and [3] how can it be elicited and documented? We will discuss the utility of various techniques for documenting these relations, including the study of naturally occurring speech, the use of constructed contexts, and the role of elicitation.

1 Introduction

As an introduction to the relations *topic* and *focus*, consider the following excerpt from a Tsotsil (Mayan) text concerning two men out in the woods.[2] The first point to note is

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[1] I am grateful to Malte Zimmermann for his comments on an earlier version of this paper. They have been extremely helpful in improving the final manuscript. I also thank Stavros Skopeteas for permission to reproduce images from Skopeteas et al. (2006) and Jenneke van der Wal for her suggestions and pointers to some relevant literature. Needless to say I am solely responsible for the content.

[2] This excerpt was discussed earlier in Aissen (1992), as well as in Büring (2016). For examples, I generally retain the glosses of the original source. Non-standard abbreviations are: CL 'clitic'; CM 'class marker'; CP 'completive'; ENC 'enclitic'; ICP 'incompletive'; NM 'noun marker'; PAR 'particle'; PRO 'pronoun'; ∃ = existential predicate; SCR 'subject cross reference'. In examples from Tsotsil, Jakaltek, and Tz'utujil (all Mayan languages), the raised comma (') represents glottalization of a preceding occlusive and, elsewhere, glottal stop.

that while Tsotsil is a VO language, the object in both (1b) and (1c) (underlined) occurs *before* the verb.

(1) Tsotsil (Laughlin, 1977, 69)

    a. Something had landed at the foot of the tree. They went to look. There was a straw mat. Something was rolled up inside the straw mat. "Hell, what could it be? Let's go, let's untie the straw mat," the two men said to each other. They untied it. You know what –

    b. <u>Tseb</u> <u>san-antrex</u> la te   staik   un.
       girl   san-andrés CL there they.found PAR
       It was a San Andrés girl that they found there.

    c. <u>A</u>   ti   <u>tseb</u> <u>san-antrex</u> <u>une</u>,   iyik'ik   la ech'el un.
       TOP DET girl san-andrés PAR.ENC they.took CL away PAR
       That San Andrés girl, they took her away [with them].

Neither (1b) nor (1c) represents an utterance which can begin a discourse. In both cases, the preverbal position of the object is possible (felicitous) only under certain conditions related to the larger context. (1b) is possible only if, at the point it is uttered, it is already presupposed that the men found a mat and that there was something rolled up in it. (1a) establishes this, so the preverbal position of the object is licit. (1c) is subject to a different condition: it is possible only if, at the point it is uttered, the San Andrés girl is familiar to the hearer, i.e., is already part of the discourse context. This condition too is met, since she is introduced into the context by (1b). The positions of the nominals in (1b,c) then are licensed not by their grammatical relations, but by their relation to the larger discourse context, by their *information structural* relations.

Information structure (IS) refers to the partitioning of the information conveyed in a sentence in a way that relates that information to the discourse context. The preverbal nominals in (1b,c) bear two of the central IS relations, *(sentence) topic* and *focus*, relations which are realized utterance-initally and preverbally, respectively, in Tsotsil. Thus, (1b) is partitioned into the focus (that which is new) and the background (that which is supposed or presupposed) (Jackendoff, 1972, Ch. 6), while (1c) is partitioned into the sentence topic (an expression which refers to the entity we are talking about) and the comment (what is said about her, the rest). In Tsotsil, these partitions are paralleled by structural divisions in the syntax.

It is well known that languages use a variety of formal devices – prosodic and morphological, as well as syntactic – to signal IS relations. To document topic and focus in particular languages, we need to discover these devices and investigate their properties, tasks which require that we take into account units (domains) larger than the individual sentence. One goal of the present paper is to make clear what the nature of those domains is.

We concentrate here on the relations *topic* and *focus*, and on their contrastive variants, *contrastive topic* and *contrastive focus*, leaving aside the third important IS dimension, *given* vs. *new* (Krifka, 2007). We will be considering three approaches to documenting topic and focus: the study of naturally occurring speech (corpora), the use of constructed contexts to elicit utterances, and traditional elicitation methods which involve requests that speakers judge or translate utterances (see Skopeteas (2012) for an excellent discussion of the relation between these methods in the study of information structure).

Given the quality and the validity of the data that can be extracted from naturally occurring speech, the study of corpora should have priority both in terms of our confidence in the data, and in the documentation process itself. That is, there is good reason to study topic and focus in naturally occurring speech before attempting to elicit examples of these relations in artificial contexts. Working with texts or transcriptions of relatively spontaneous speech provides a baseline for subsequent work, a 'reality check' on the validity of future results. It may also reveal structures that do not arise in more artificial situations, structures that the investigator would not think to ask about without having seen them attested.

At the same time, an important aspect of linguistic analysis involves *systematic* investigation of grammatical phenomena and naturally occurring material is, by its nature, partial, not comprehensive. Working through large quantities of text material is also very time-consuming. Hence there is an important role too for constructed tasks which aim to elicit relevant data in response to prompts, or through requests for translation and speaker judgments. Elicitation, in particular, is crucial in confirming inferences about what is possible and, especially, what is not possible (Skopeteas, 2012). In discussing constructed tasks, I will draw heavily on materials that have been developed by the Information Structure group at the University of Potsdam and the Humboldt University, published as *Questionnaire on Information Structure: Reference Manual* (Skopeteas et al. 2006). I refer to it below as QUIS.

The organization of this paper is straightforward: §2 outlines some of the underlying assumptions about discourse structure. Focus (both contrastive and non-contrastive) is discussed in §3, topic is discussed in §4 and contrastive topic in §5. For each relation, we address the following questions: [1] how do we understand it? [2] what are some of the common ways it is marked cross-linguistically? [3] how can we document it?

Before proceeding, a caveat is in order: the literature on topic and focus is enormous, and it proceeds from a variety of perspectives. It is hardly possible to do justice to that complexity here. Important references include Chafe (1976); Prince (1981); Lambrecht (1994); Roberts (1996) and Krifka (2007). Gundel and Fretheim (2004) and Güldemann et al. (2015) are short treatments of both relations which address some of the complexity. Many other relevant references are cited below.

2 The common ground

The information structural status of an element at a particular point in time is determined against the background of the current *discourse context*. Following others, I take the discourse context to include the discourse participants, minimally the speaker and the addressee(s), as well as what is called the *common ground*. The common ground is the set of propositions which the discourse participants have agreed to mutually accept (Stalnaker, 2002). These propositions can be taken for granted as the discourse moves forward, they are *presupposed*. The common ground also contains a set of *given* discourse referents, those referents that have already been introduced into the discourse, or who are known to be familiar to speaker and addressee (e.g., because they are present in the speech situation), or who can be accommodated because of their relation to other given discourse referents. Some of these referents are more salient than others, e.g., by virtue of recency of mention or for some inherent reason.

I assume that the goal of discourse is 'to discover the way things are', to update the common ground, typically by adding propositions to it. Questions, both explicit and implicit, play a key role in determining the direction in which the common ground develops and they therefore play an important role in identifying the contexts in which IS relations like topic and focus occur (Roberts, 1996; Büring, 2003).

3 Focus

3.1 Characterizing 'focus'

The notion *focus* is often illustrated via WH question-answer pairs.

(2) a. Where is Kim going?
     b. She's going to [Prágue]_F.

(3) a. What's happening?
     b. [Kim's going to Prágue]_F.

WH questions carry a presupposition. (2a) presupposes that Kim is going somewhere; (3a) presupposes that something is happening.[3]

The answers provide a value which substitutes for the indefinite (the variable) in the presupposition, making the sentence true (the place that Kim is going is *Prague*, what's

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[3]*Presupposition* is in fact too strong a notion for many ordinary WH questions. The speaker of (2a) imagines or assumes that Kim is going somewhere, but if this turns out to be false, it is of no great consequence. Simple WH questions (unlike clefted WH questions, *which* questions, and WH questions in specific alternative-triggering contexts, e.g., *Who won the final, France or Portugal?)* can be answered in the negative. Thus, *she isn't going anywhere* is an acceptable answer to (2a), and does not have the quality of a presupposition failure. *Supposition* more appropriately describes the background in some cases than *presupposition*, but I will use the latter term in a broad sense here to include *supposition*. See Drubig and Schaffer (2001) as well as Geurts and van der Sandt (2004); Büring (2004) and the other articles in the same volume. Thanks to Malte Zimmermann for discussion of this issue.

happening is *that Kim is going to Prague*). This value is the *focus* of the answers in (2b) and (3b); it is the element in the answer which is not present in the question. (2b) and (3b) can be partitioned then into two parts: the part that corresponds to the presupposition (the *background*) and the part which corresponds to the locus of new information (the *focus*). In (2b) the focus extends over a NP, in (3b), it extends over the entire sentence. (3b) is an *all new* sentence, also known as having *maximally broad* focus. (2b) has a *narrow* focus, relative to (3b).

The 'size' and location of the focus depend entirely on the discourse context (in this case on the WH question). The answers in (4a-c), show narrow focus of the VP, the subject NP, and the verb respectively.

(4)   a. What is Kim doing? She's [going to Prágue]_F.

       b. Who's going to Prague? [Kím]_F's going to Prague.

       c. How is Kim getting to Prague? She's [dríving]_F to Prague.

It is evident from the pronunciations of these examples that the focus in English is (partly) identified by pitch accent (marked with an acute accent). While the default position for the pitch accent in English is roughly on the rightmost stressed syllable of the utterance, it is 'retracted' to the rightmost stressed syllable of the focus in (4b-c). The position of the pitch accent is a crucial clue to identifying the focus in English, but it does not always identify it unambiguously. Examples (2b), (3b), and (4a) can all be pronounced in the same way, whether the focus corresponds to the entire sentence (3b), to the VP (4a), or to the utterance-final NP (2b). In all three cases, the rightmost word is part of the focus and carries the pitch accent. Out of context, the size of the focus is ambiguous because it is unclear how far *to the left* the focus extends (cf. the phenomenon of *focus projection*, Chomsky 1971; Selkirk 1984; Ladd 1996).

The same prosodic prominence occurs in contexts which do not involve WH questions. *éggs* is focus in all the responses in (5) and (6a-d), but only in (5) does it respond to a WH question.

(5)   a. What did Kim have for breakfast?

       b. Kim had [éggs]_F for breakfast.

(6)   a. i.   Kim had pancakes for breakfast.

           ii. No, she had [éggs]_F for breakfast.

       b. i.   Did Kim have pancakes or eggs for breakfast?

           ii. Kim had [éggs]_F for breakfast.

       c. i.   Kim had pancakes for breakfast.

           ii. Yeah, she also had [éggs]_F for breakfast.

       d. i.   Did Kim have eggs and pancakes for breakfast?

           ii. She only had [éggs]_F for breakfast.

In the context of the first utterance, each response in (5)-(6) presupposes that *Kim had something for breakfast* and each asserts (minimally – some do more) that among the things Kim had for breakfast was eggs. Thus the replies in (5) and (6a-d) can all be partitioned in the same way into background and focus. The literature on focus, though, makes a distinction between the focus in (5) and the ones in (6a-d). Without any context beyond the WH question in (5a), the reply in (5b) does no more than make the minimal assertion. It provides new information in answer to that question. Following a common practice, I refer to this as *information focus*.[4]

The replies in (6a-d) do more. In addition to asserting that Kim had eggs for breakfast, each response also rejects an alternative proposition, one which is in fact explicit in the previous utterance, namely that Kim had pancakes for breakfast. Hence there is an explicit contrast between *eggs* and *pancakes* as values for the variable in the presupposition, *Kim had something for breakfast*. More precisely, each reply rejects the alternative proposition as an *exhaustive* account of what Kim had for breakfast. This rejection has different effects on the conversation depending on the larger context, yielding different *types* of contrastive focus. In (6a), the reply *corrects* the previous utterance. In (6b), it *selects* from several alternatives raised by the previous utterance. In (6c), it accepts the alternative proposition as a partial answer, but *adds* another to it to make the answer exhaustive. And in (6d), the previous utterance evokes two propositions (that she ate eggs and that she ate pancakes); the reply indicates that one of these constitutes an *exhaustive* answer, thereby rejecting the other.

Alternative Semantics (Rooth, 1992) puts *alternatives* at the center of its account of focus. In this account, the difference between information focus and contrastive focus lies in the relation that the sentence with focus bears to the alternatives that it evokes. In information focus, the alternatives are not made explicit and may not be 'active' in the consciousness of speaker or hearer. In answering a WH question like the one in (5), the speaker simply offers one proposition as true, without indicating any attitude towards the truth or falsehood of alternative propositions. When the alternatives are small in number and are made explicit, as in (6a–d), focus becomes contrastive. Exactly what is required for a focus to be contrastive (do the alternatives need to be explicit? how small does the set need to be?, etc.) remains an open question (see Molnár 2002; Molnár and Winkler 2011), as does the typology of contrastive focus (see Dik et al. 1981 and Dik 1989).

As illustrated by several of the contexts in (6), contrastive focus often counters hearer expectation; this is at play in (6a) and (6c,d). The role of counter-expectation and surprise in determining contrastive focus is emphasized in Zimmermann (2008). It accounts for the contrastive focus in (7), where the relevant factor is not the presence of explicit or even live alternatives, but the unexpectedness of the value (*snáils*) compared with

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[4]Other terms which appear in the literature include *presentational focus*, *neutral focus*, *focus* (simpliciter), *assertive focus* (Dik, 1989), and *rheme* (Halliday, 1967; Vallduví and Vilkuna, 1998).

possible alternative values.

(7) Hey, you know what? I had [snáils]$_F$ for breakfast.

This discussion of focus has made a number of distinctions. One, the distinction between *broad* and *narrow* focus, concerns the extent of the focus. An all-new sentence has broad focus; focus of a constituent within the sentence is (relatively) narrow. The extent of focus depends on the discourse context and what exactly is presupposed. The distinction between *information* focus and *contrastive* focus concerns the relation between the sentence with focus and the alternatives that it evokes. To the extent that a sentence with focus counters expectations, either by rejecting or restricting earlier assertions or by presenting surprising information, focus is contrastive. Within the category of contrastive focus are various subtypes, some of which have been mentioned.

In view of these various distinctions, an important question is whether any of them are categorical ones, differences which are registered in some language(s) by distinct grammatical features, or are they rather gradient differences involving different degrees of emphasis and reflected only statistically? We address this in the next section. Further, when focus (of whatever type) is associated with some grammatical feature, does that feature actually realize the category *focus*, or does it realize some other category (e.g., *contrast*) which is not only associated with focus, but potentially with non-foci. Documentation of the various types of focus in a wide range of languages has a crucial role to play in clarifying these issues.

3.2 Marking focus

The typology of focus *marking* includes resources drawn from all grammatical components. In some languages, it is marked prosodically, as in English. Many languages have focus morphology, and many use syntactic position or special syntactic constructions to convey focus. For overviews of focus marking, see Büring (2010), Zimmermann and Onea (2011), and Güldemann et al. (2015) (the last especially on languages of Africa). Here we briefly survey some of the commonly found strategies. These are not mutually exclusive – we will see examples below where focus is marked in multiple ways.

3.2.1 Prosodic prominence

In many languages, focus has prosodic effects. These are of two types: effects related to stress and accent (e.g., duration, pitch, loudness) and effects related to prosodic phrasing. Examples of the first type include the appearance of default pitch accent on the focus (e.g., English), the appearance of special tonal morphemes (e.g., Swedish, Bengali), expansion of the pitch range for words in focus (Japanese), and vowel length under main phrasal stress (e.g., European Portuguese). Prosodic edge effects include insertion of prosodic phrase boundaries to the left or right of the focus (e.g., Hungarian, Chichewâ,

Japanese).[5]

In Chichewâ, for example, Kanerva (1990) proposes that the right edge of the focused element must align with the right edge of a phonological phrase (phrasing is represented below by parentheses, the focused constituent by brackets).[6] This does not force an internal phrase break in (8b), where the locative phrase focus occurs at the right edge of the utterance. But it forces one after the verb focus in (8c). The change in phrasing is diagnosed by the lengthening of the penultimate vowel in a phonological phrase; (8c) has two such vowels, while (8a,b) have only one.

(8) Nkhotakota Chichewâ (Kanerva, 1990, 98)

　　a. a-na-góná m-nyumbá yá Mávúuto.
　　　　they.slept in-house   of Mavuto
　　　　They slept in Mavuto's house.

　　b. Where did they sleep? (Locative NP focus)
　　　　(a-na-góná [m-nyumbá yá Mávúuto]$_F$)
　　　　they.slept in-house   of Mavuto
　　　　They slept in Mavuto's house.

　　c. What did they do in Mavuto's house? (V focus)
　　　　([a-na-góona]$_F$) (m-nyumbá yá Mávúuto)
　　　　they.slept   in-house   of Mavuto
　　　　They slépt in Mavuto's house.

For further discussion of prosodic focus marking, see Selkirk (2007); Wagner and Watson (2010); Büring (2010), among others.

As to whether the prosodic marking of focus distinguishes the various categories of focus introduced earlier: the issue is unsettled, but seems to vary depending on the language. The distinction between broad and narrow focus is claimed to be marked in some languages (e.g., Bengali (Hayes and Lahiri, 1991) and European Portuguese (Frota, 2002)), but not in others (e.g., English, likewise Dutch and German). As for the distinction between information and contrastive focus, it is often reported that contrastive focus is indicated by more acoustic prominence than information focus (higher pitch, wider pitch range, longer duration) (see for example Toepel and Alter 2013 and Kügler 2008 on German, and Mehlhorn 2013 on Russian), However, it is not clear that these differences are categorical, rather than gradient. Further, it is not clear that particular accent patterns are associated uniquely with particular information structure categories. Claims for such categorical associations have often been made for English on the basis of laboratory data, but Hedberg and Sosa (2007) conclude from their study of naturally occurring

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[5]References include Bruce 2005 (Swedish), Hayes and Lahiri 1991 (Bengali), Xu 1999 (Mandarin), Frota 2002 (E. Portuguese), Kanerva 1990 (Chichewâ), Pierrehumbert and Beckman 1988 (Japanese).

[6]But see Downing and Pompino-Marschall (2013), which questions Kanerva's generalization and proposes a different analysis.

spontaneous speech that these associations are not straightforward ("…*we deny that there is any prosodic category as distinctive as a 'topic' accent as opposed to a 'focus' accent"*, p. 119). Their conclusions underscore the importance of studying the realization of focus (and topic) in naturally produced speech.

3.2.2 Morphology

Morphological marking of focus may involve the presence of special morphology either on the focused element itself (a kind of 'dependent' marking, in the sense of Nichols (1986)) or on a head which takes the focused element as dependent (a kind of 'head' marking). Dependent focus marking usually involves a 'focus' particle, often adjacent to the focused element. In Soninké (Niger-Congo, Mande), the particle *ya* (underlined) follows the focus. According to Diagana (1987), any element in the sentence can be focused in this way.[7]

(9) Soninké (Diagana, 1987, 62)

  a. Umaru renme n   da   lemine ke katu daaru.
      Umar   son   NM PRED child   NM hit   yesterday
      Umar's son hit the child yesterday.

  b. [Umaru]_F ya   renme n   da   lemine ke katu daaru.
      Umar   FOC son   NM PRED child   NM hit   yesterday
      It's Umar whose son hit the child yesterday.

  c. Umaru renme n   da   [lemine ke]_F ya   katu daaru.
      Umar   son   NM PRED child   NM FOC hit   yesterday
      It's the child that Umar's son hit yesterday.

  d. Umaru renme n   da   [lemine ke katu]_F ya   daaru
      Umar   son   NM PRED child   NM hit   FOC yesterday
      It's hitting the child that Umar's son did yesterday.

  e. Umaru renme n   da   lemine ke katu [daaru]_F ya.
      Umar   son   NM PRED child   NM hit   yesterday FOC
      It's yesterday that Umar's son hit the child.

Dependent focus markers are common among African languages, regardless of genetic family (Fiedler et al., 2010; Güldemann et al., 2015). Other languages with focus particles include Navajo (Athapaskan), and various Creoles. Per Drubig and Schaffer (2001), grammaticization of a cleft construction (see below) is the usual source for focus particles.

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[7]However whether this strategy extends to *verb* focus (as opposed to *predicate* focus, cf. (9d)) is unclear. Zimmermann (2016) shows that in many languages narrow focus on the verb requires structural encoding different from that of other terms. The translations and glosses of (9) come from Kalinowski (2015).

Marking the focus status of a constituent on the head which governs the focus typically involves either the *presence* of special 'focus' morphology, or the *absence* of otherwise typical morphology (e.g., agreement or TAM marking), or both (see Kalinowski and Good 2015 on the use of morphological impoverishment to signal focus). In Likpe (Niger-Congo, Kwa), subject focus is indicated only by the replacement of usual subject cross-reference marker (underlined in 10a) with one that is sensitive to tense and is restricted to occurring in 'pragmatically marked and dependent constructions'.

(10)   Likpe (Ameka, 2010, 151)

    a. o-saní   ə́-mə́   ə-tə́kə.n.ko u-sió   ə́-mə́.
       CM-man AGR-DET SCR-follow CM-woman AGR-DET
       The man followed the woman.

    b. [o-saní]_F ə́-mə́   li-tə́kə.n.ko   u-sió   ə́-mə́.
       CM-man AGR-DET DEP.PAST-follow CM-woman AGR-DET
       [The man]_F followed the woman.

An alternative perspective on focus head-marking is developed in Güldemann (2016), which argues that such marking sometimes marks the *background*, rather than the focus status of a dependent. If this were the correct analysis of (10b), for example, dependent morphology would mark the backgrounded status of the predicate on its head (the verb), leaving the subject outside the domain of the background and accordingly interpreted as focus. Güldemann's examples come from a number of African languages, but such an analysis needs to be considered for all cases of focus head-marking.

'Focus' (or 'background') morphology, whether head-marking or dependent marking, often occurs in constructions which are allied with focus in some way, but which do not themselves contain a semantic focus. In Likpe, the head morphology associated with focus (10b) also occurs in constituent questions. In Gùrùntùm (West Chadic), the dependent morphology associated with focus occurs likewise also in constituent questions (Hartmann and Zimmermann, 2009).[8] Many other examples could be cited.

Focus particles which are lexically specialized for particular types of focus are familiar from English, e.g., *only, also, even.* In English, these may occur adjacent to the associated focused element, but may also occur at a distance (Jackendoff, 1972; Rooth, 1985; Beaver and Clark, 2008). Association of the focus with pitch accent helps identify the focus:

(11)   a. I only gave the book to [Jóhn]_F. (I didn't give it to anyone else.)

    b. I only gave [the bóok]_F to John. (I didn't give him anything else.)

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[8]See Cable (2008) on the issue of whether interrogatives are a type of focus construction.

3.2.3 Syntax

Some languages have a syntactic position which is associated with focus, resulting in displacement of the focus to that position. Hungarian is a well-known example (see É. Kiss 1998; Szendröi 2003 among others). In a broad focus context, neutral order places objects after the verb:

(12) Hungarian (Szendröi, 2003, 71)

    a. Mi   történt?
       what happened
       What happened?

    b. [Tegnap este be mutattam Pétert Marinak]$_F$.
       last night PRF introduced.I Peter.ACC Mary.DAT
       Yesterday, I introduced Peter to Mary. (Szendröi, 2003)

If the dative is focused, it can occur either in its neutral position, (13a), or in preverbal position, (13b).

(13) Hungarian (É. Kiss, 1998, 247)

    a. Tegnap este be mutattam Pétert [Marinak]$_F$.
       last night PRF introduced.I Peter.ACC Mary.DAT
       Last night I introduced Peter to Mary.

    b. Tegnap este [Marinak]$_F$ mutattam be Pétert.
       last night Mary.DAT introduced.I PRF Peter.ACC
       It was to Mary that I introduced Peter last night.

É. Kiss (1998) proposes that the preverbal position is a dedicated focus position. She argues further that it is associated with certain pragmatic effects, namely what she calls 'exhaustive identification'. (13b) means that of a set of individuals present in the domain of discourse, it was to Mary and to no one else that I introduced Peter last night. In contrast, the postverbal focus in (13a) simply asserts that Mary was a person (possibly among several) to whom I introduced Peter last night. The postverbal focus is thus information focus; the preverbal focus is a type of contrastive focus.

    According to É. Kiss, the distinction between information focus and exhaustive identification is categorically encoded in Hungarian syntax. In other languages, there is a tendency in this direction, but it is not categorical. Hartmann and Zimmermann (2007) argue for Hausa that while all types of focus can be expressed either *in situ* or *ex situ*, there is a statistical preference for information focus to remain *in situ* and for contrastive focus to occur *ex situ*. Note that because focus positions are generally located at the periphery of the clause, displacement of the focus results in a syntactic partition of the clause into focus and background which parallels its pragmatic partition.

Movement of focus to a dedicated syntactic position can coocur with focus morphology. In many Mayan languages, a contrastively focused element moves to a dedicated syntactic position before the verb (as in (20)-(22) below). Further, in some of these languages, special morphology is required when the focus corresponds to the subject of a transitive clause: the verb carries a special 'agent focus' suffix and the usual ergative agreement marker is omitted (see Stiebels 2006; Aissen 2017, and references therein). Examples include (32a) and (33b) below.[9] In Yucatec Maya, focus involves movement to a dedicated position, and focus of transitive subjects is 'marked' by omission of agreement with the agent, and by neutralization of various verbal TAM categories, i.e., by morphological impoverishment.

Biclausal cleft constructions, a common syntactic strategy for expressing focus, also partition the utterance into focus and background. Clefts involve a copula which enters into construction with two terms: one which corresponds to the focus, and one, whose form resembles a relative clause, which corresponds to the background.

(14)   I heard your motorcycle broke down.

     a.   French: C'est [ma voiture]$_F$ qui est en panne.

     b.   English: It's [my cár]$_F$ that broke down.

     c.   What broke down was [my cár]$_F$. (Lambrecht, 1994).

The structural partitioning of focus and background is often associated with exhaustivity, but not always. In English, for example, clefts express exhaustive focus, but in St'át'imcets (Salish) they apparently do not (Davis et al., 2004).

There are also cases which might be interpreted as movement to a dedicated structural position for focus, but are probably better analyzed as reorderings which leave the focus in a prosodically (not syntactically) determined position. That is, languages in which the position of prosodic prominence is relatively fixed may require either reordering the focus from its neutral position so that it occupies the position of prosodic prominence or reordering of other elements so that the focus ends up in that position. Face and D'Imperio (2005) compare the realization of theme and goal focus in English and Castilian Spanish. English has rigid word order but the position of pitch accent is flexible and retracts to the focus when the focus is not final (compare 15a,b). In Spanish, word order is more flexible and prosody less flexible. This triggers reordering of the theme focus to sentence-final position in (16b) (see also Zubizarreta 1998; Büring and Gutiérrez-Bravo 2001) (the word which realizes prosodic prominence is shown here in small caps).

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[9]Though traditionally called *agent focus* morphology in Mayan, this morphology is found also when agents are questioned and relativized. Hence the morphology probably rather marks the syntactic fronting process which is common to those structures.

(15)   English: rigid word order, accent retracts to focus

    a.   What will he give Mary? He will give Mary [the bóok]_F.

    b.   Who will he give the book? He will give [Máry]_F the book.

(16)   Spanish: flexible word order, focus moves to accent

    a.   ¿A quién le dará el libro? Le dará el libro [a MARÍA]_F.

    b.   ¿Qué le dará a María? Le dará a María [el LIBRO]_F.

A similar result can be achieved by reordering other elements around the focus, leaving the focus in the position of fixed prosodic prominence. Vallduví (1994) argues that in Catalan, focus can 'end up' in the position of default pitch accent by right-adjoining given elements (i.e., elements which belong to the background) on the right. For example, focus of the verb in (17a) requires right detachment of the direct object *el gos* 'the dog', leaving behind a clitic (*l'*). The pragmatically equivalent English example, (17b), achieves the same result by retracting pitch accent to the focused verb and does not require detachment of the object.

(17)   Catalan (Vallduví, 1994, 599)

    a.   El Lluc se l'[ESTIMA]_F, el gos.

    b.   Luke [lóves]_F his dog.

3.2.4   Conclusion

Most languages appear to have the means to 'mark' focus in some way – prosodically, morphologically, or syntactically – and sometimes with multiple devices. How common it is for languages to categorically distinguish information focus from contrastive focus remains an open question.

One might ask whether focus is always 'marked' in some overt way. Apparently not. Hartmann and Zimmermann (2007) show that in Hausa, focus can occur *in situ* and be associated with no prosodic marking. They suggest the same is true in some other Chadic, Bantu, and Kwa languages. In such cases, the listener has to depend entirely on context to identify the focus.

3.3   Documenting focus

In documenting focus, the discourse context is crucial, as this is what determines the partition of an utterance into background (what is presupposed, old) and focus (what is new). A presupposed background must be identified against which some element in the current utterance is new. I discuss below three strategies for documenting focus, starting with maximally naturalistic speech and proceeding to elicited speech. Through the study of naturally occurring discourse, we can develop initial hypotheses about the grammar of

focus and these can be more systematically tested through the use of constructed contexts and elicitation.[10] Regardless of the method or strategy, identification of the presupposed background is crucial. An obvious and convenient starting point in documenting focus is to attend to WH questions as these present the background for the answer in a particularly transparent way.

3.3.1 Naturally occurring speech

To illustrate what can be gleaned from naturally occurring speech, consider the following fragments from Tsotsil (Mayan) which occur in narrated texts (basic word order in Tsotsil is VOS). Both contain an explicit WH question, followed by an appropriate answer. Both indicate that information focus can remain *in situ* in Tsotsil, with no morphological change required.

(18) Tsotsil (Laughlin, 1977, 118)

    Q: Bu   la'ay?
        where you.went
        Where did you go?

    A: Li'ay   [ta Muk'ta Jok]$_F$.
        I.went to Muk'ta Jok
        I went to Muk'ta Jok.

(19) Tsotsil (AUTHOR)

    Q: K'usi ta   jlajes ta ch'ivit tana?
        what ICP I.eat in market today
        What am I going to eat in the market today?

    A: Ta jlo'tik [manko]$_F$, ta jti'tik [ch'ich']$_F$.
        ICP we.eat mango   ICP we.eat blood
        We'll eat mango, we'll eat [boiled] blood.

These involve information focus, not contrastive focus, as the preceding context does not provide a set of explicit alternatives and none of the answers counters expectations of the hearer. Note that in both examples, the focus occurs sentence-finally and carries the main sentence stress. Since main sentence stress in Tsotsil declaratives falls on the final syllable of the intonational phrase in any case, there is no evidence here for retraction of the stress to focus.

Naturally occurring discourse also provides rich examples of contrastive focus. In this case, we are looking for contexts in which alternate propositions are salient. Consider for example, the dialogue in (20). It starts with a reported conversation between A and B. One man (A) passes another (B), working in his field, and poses a question.

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[10]For a detailed and critical assessment of methods used to document focus, see van der Wal (2016).

(20) Tsotsil (Laughlin, 1977, 334)

    A: "What are you doing?"

    B: [Ta jts'un]_F, [ta jts'un ton]_F, [ta jts'un te']_F.
        ICP I.plant ICP I.plant rock ICP I.plant tree
        "I'm planting, I'm planting rocks, I'm planting trees."

B's answer involves VP (predicate) focus; this is information focus and there is no evidence of dislocation of the VP. The next utterance is spoken by the narrator (C), who corrects B's response.

(21) C: Pero [chobtik]_F tsts'un un.
      but corn   he.plant PAR
      But it was corn that he was planting.

In C's utterance, *chobtik* 'corn' is the focus, and the rest, 'he was planting something' is the presupposed background. Furthermore, 'corn' is a *contrastive* focus since it contrasts with the explicit alternatives mentioned by B. That is, not only does the narrator assert that the man was planting corn, he also rejects the earlier assertions ('I'm planting rocks, I'm planting trees'). Grammatically, the *corrective* focus occurs *ex situ* in preverbal position. (20) suggests then that Tsotsil may have different strategies or at least different tendencies for realizing information focus and contrastive focus.

Preverbal focus in Tsotsil generally does evoke a set of culturally appropriate alternatives. Consider again part of the narrative about the San Andrés girl from (1), repeated below.

(22) Tsotsil (Laughlin, 1977, 69)

    a. Something had landed at the foot of the tree. They went to look. There was a straw mat. Something was rolled up inside the straw mat. "Hell, what could it be? Let's go, let's untie the straw mat," the two men said to each other. They untied it. You know what –

    b. [Tseb san-antrex]_F la te   staik   un.
       girl san-andrés CL there they.found PAR
       It was a San Andrés girl that they found there.

(22b) is uttered against a background in which the existence of something rolled up in the mat is presupposed, and the question of what that something is has been explicitly raised (*hell, what could it be?*). (22b) answers that question. *Tseb san-antrex* 'San Andrés girl' is thus clearly the focus and its preverbal position suggests that it is contrastive. In this case, the alternatives are not explicit, but the unexpected nature of the focus (girls are not usually found rolled up in mats) evokes a set of culturally-expected alternatives. Thus its status as an unexpected focus value motivates its appearance in preverbal position.

The advantage of naturally occurring speech is that the discourse context is provided and it is appropriate and rich. The disadvantage of relying solely on naturally occurring speech is that it generally will not permit a systematic investigation of focus, one which covers the full range of grammatical functions and category types, nor a full range of focus types. Further, since it is uncontrolled, the context may be *too* rich, making it impossible to control for the various factors that might influence how focus is realized. To address these problems, we need to control the background and the utterances which are produced against that background.

3.3.2 Constructed contexts

Since focus arises always against a presupposed background, constructing a context for the purpose of documenting it involves establishing a background which is shared by the researcher and the speaker. It also involves a prompt which actually elicits the target utterance. In what follows, I will distinguish the *context* of the target utterance from the target utterance itself. Within the context, I distinguish the *setting* (or *basis*) from the *prompt*. The setting can be established in linguistic form (an oral or written narrative) or in visual form (e.g., a picture, a story book, a film). The form of the prompt will vary, depending on the task. It might be a question which is designed to elicit the target as a direct answer. Or if the setting is sufficiently rich, the target utterance might be produced with a less direct prompt, through the form of the setting and the task itself. Below I discuss four strategies for eliciting information and contrastive focus, starting with ones that are more artificial and controlled and moving towards ones that are less controlled and more closely approximate natural speech.

The most straightforward way to elicit examples of information focus is through WH question prompts, as these make the partition of the answer into background and focus particularly clear. A simple task can establish the setting through single cards with images of situations, e.g., a man riding a horse, a woman picking a flower, a boy putting wood on a fire, a child watching two girls. Prompts like *what is the man riding? who is picking the flower? where is the boy putting the wood? how many girls is the child watching?* elicit focus of patient, of agent, of location, of a quantifier.

Somewhat more complex settings can be established through films or story books (possibly accompanied by narration), but again followed by prompts in the form of WH questions. Several groups have developed such materials, notably the *Totem Field Story* project and the *Typology of Information Structure Group*. The Totem Field Story Group makes multi-frame stories available on their website for use by fieldworkers.[11] These involve narration by the researcher of a story which is also illustrated visually, and incorporates WH questions to be answered by the speaker. QUIS (Skopeteas et al., 2006) includes cards, films, and picture stories which can be used as the basis for WH questions

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[11]www.totemfieldstorybooks.org

that elicit new information focus.

As illustration, Figure 1 shows a picture story, *The Nasty Dog,* from QUIS (p. 133). It consists of six-frames which the speaker is asked to look at. Questions are then posed to

Figure 1

the speaker in the target language. Answers are provided by the speaker, who is asked to avoid one-word answers – crucial for a study of the syntax and prosody of focus. Some of the questions suggested by QUIS are shown in (23); these elicit sentential focus, NP focus and predicate focus, respectively.

(23)   a. Why is the man running through the forest?

b. What does the dog have around his neck?

c. What happened to the dog?

Because these questions are intended to elicit *information* focus, they are non-contrastive. A question like *who is wearing the hat?* might elicit contrastive focus since there are two (visually) explicit alternatives for the answer (the boy or the dog). Although the question in (23b) is similar in form, there is only one alternative – the leash. Similarly, the other two questions – which elicit whole sentence focus and predicate focus – do not call for answers that evoke alternative scenarios.

There are some issues regarding what language should be used in these tasks – the target language or a meta-language. The use of *visual* materials to establish the setting (e.g., the single cards, a picture story) partly side-steps this issue. But if the setting is presented entirely or partially in linguistic form, any language in which the participants are all competent should be satisfactory. What is important is that the background be shared, i.e., understood in the same way by the participants, rather than that it take a particular form. However, when focus is elicited through a WH question prompt, questions and answers should be given in the same language. To assure comparable results among subjects, QUIS suggests that questions be presented in taped form so that each speaker responds to the same input.[12]

Contrastive focus can be elicited using similar methods, i.e., through a setting which is established either linguistically or visually, and via prompts which take the form of questions. In this case, the questions must be alternative questions, i.e., questions which ask the speaker to choose among alternatives. Such a task can be based on the *focus cards* of QUIS (pp. 137ff). These materials consist of images of various individuals (people) who are associated with images of various objects, as depicted in Figure 2, for example. Questions like (24) are posed in the target language to the speaker; he or she is asked to respond in one complete sentence

(24) a. Who has the apples, Samuel or Willy? (selective focus on subject)

b. What does Willy have, bananas or apples? (selective focus on object)

c. Samuel has oranges, doesn't he? (corrective focus on object)

d. Samuel has two apples, right? (corrective focus on quantity)

e. Willy has apples and bananas, right? (exhaustive focus on object)

The WH questions in (24a,b) prompt the speaker to select the 'true' scenario from among alternatives. The declaratives + polar tag question (24c,d,e) do something a little different. Literally, they ask the speaker to choose among propositions that differ only in polarity (Samuel has oranges vs. Samuel does not have oranges). Pragmatically, though,

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[12]This raises the question whether the *form* of the question might influence the *form* of the answer in a way that is not typical of more natural dialogic speech; see Skopeteas et al. (2006) for a task which probes this influence, as well as Matthewson (2004) for discussion of these issues.
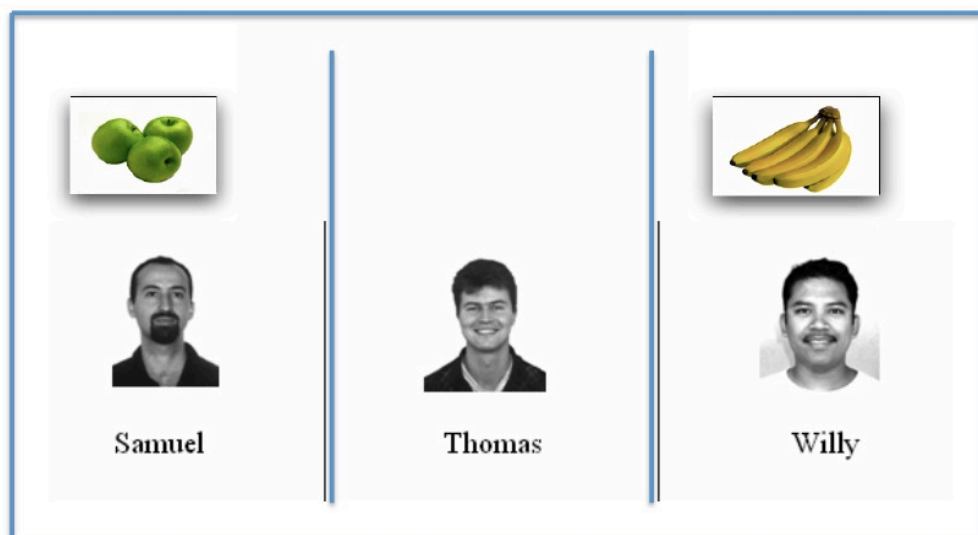
Figure 2

compliance with Grice's Maxim of Quantity (*make your contribution as informative as is required for the current purposes of the exchange)* calls for the hearer to 'correct' the previous utterance, leading to corrective or exhaustive focus. The array in Figure 2 can be easily altered to elicit other kinds of focus. For example, if an image of oranges is added to the individual named 'Samuel', the prompt *Samuel has apples, right?* is likely to elicit additive focus.

If the setting itself provides alternative scenarios, the prompts which are intended to elicit contrastive focus need not themselves reference alternatives. For example, consider a pair of cards which show scenarios that contrast on a single dimension (e.g., a man on a horse + a woman on a horse; or a woman picking a flower + a woman picking an apple) (see QUIS, p. 80ff for such materials). The speaker is presented with first one card, then the other, and asked to imagine that they represent a sequence of events. The prompt is *describe what is happening!*, ideally producing brief descriptions with contrastive focus.

Likewise, the *Angry Dog* story (Figure 1 above) can be extended to elicit contrastive focus through *narration* (QUIS, p. 126ff). That six-frame sequence (version A) is paired with a version B that differs from A only in the last frame: instead of the dog being snapped back because its leash is caught on a tree, the boy turns to look at the dog and crashes into a tree. In this task, the speaker is shown first version A and is asked to tell the story in her own words. Then she is shown version B and asked to tell that one. Here the last frame introduces a set of alternative scenarios, and contrastive focus can be elicited without an explicit alternative question.

Contrastive focus in more spontaneous, dialogic speech can be elicited using 'stimuli matching tasks'. QUIS (p. 155) presents various versions, including a 'map' task. They describe it this way:

This task is a game played by two informants who receive two slightly different maps (cf. Anderson et al. 1991). Informant A describes a route on his map and informant B is instructed to follow the route on his own map. The mismatch means that when B encounters differences between A's description and the figures on his own map, B will usually interrupt and ask questions in order to find out the exact route. Map tasks are especially useful for the elicitation of selective and corrective focus in a near-spontaneous discourse setting.

This task allows multiple sets of alternatives to emerge in a naturalistic way and calls for minimal intervention by the researcher.

Some of the materials included in QUIS will need to be adapted according to the context of the language and its speakers. The items, activities, and situations represented on cards, films, story books, maps should be culturally familiar, but distinguishable. The alternative individuals shown in Figure 2, for example, are all fairly similar, being of the same gender and age, and distinguished only by their written names. Where speakers are not literate in the target language, the individuals will need to be visually more distinct. Where speakers are literate, names will need to be made familiar.

3.3.3 Elicitation

By their nature, the documentation of focus in naturally occurring materials (§3.3.1) and through constructed contexts (§3.3.2) provides only partial information. Answers to questions will generally elicit only one structure for expressing focus but there may be multiple structures in the language and the researcher may know this from examples found in naturally occurring speech. Such examples though will not reveal the full range of contexts in which a structure can be used. In order to fill out the picture, the researcher will need to turn to more traditional elicitation methods, asking for translations or for judgments (*could I say it this way?*).

Not surprisingly, the most straightforward way of eliciting information focus involves translation of WH question-answer pairs by linguistically sophisticated native speakers. Contrastive focus can be elicited via a variety of structures, depending on the type of focus. But it always involves providing a set of explicit alternatives which are the basis for the question-answer pairs to be translated. Selective focus can be elicited via WH question-answer pairs like, *who broke the pot, you or your brother?* and through polar question alternatives, e.g., *Do you want this one here or that one over there?* Corrective focus can be elicited via a declarative, followed by a correction. QUIS provides examples of translation tasks which systematically explore the realization of information and contrastive focus for a wide range of grammatical relations and for various distributions of animacy and definiteness over the relevant arguments.

3.4 Summary

Information focus can be documented through WH question-answer pairs, either in naturally occurring discourse or in constructed discourse contexts, or via translation. Contrastive focus requires a richer context, one which makes alternative scenarios salient. These can be richly documented in naturally occurring discourse and explored more systematically through a variety of tasks based on constructed contexts and through translation and speaker judgments. QUIS is a stimulating source of ideas both about the construction of appropriate contexts and the design of tasks based on them. Documenting focus is not the same, of course, as analyzing focus. The analysis of the prosody, morphosyntax, and pragmatics of focus still remains.

4 Topic

4.1 Characterizing 'topic'

To introduce the notion *topic*, consider the first few lines of a Jakaltek (Mayan) story. Jakaltek, also known as Popti', is a VSO language with noun classifiers that function in some contexts as personal pronouns (e.g., *naj*, glossed below as 'he').[13]

(25) Jakaltek (Datz, 1980, 356)

    a. Yin hune' tyempo tu' x'ek'oj hune' ya' komam b'oj hune' sk'ahol.
       on a   time   that existed a   CLF man   and a   his.son
       Once upon a time, there was a man and his son.

    b. Sk'ahol ya' ti', ay tzet   yojtaj <u>naj</u> i   kaw kan ye <u>naj</u>.
       his.son CLF this ∃ something he.knew he and very smart was he
       This son of his, he was wise and he was very smart.

    c. Hune' tz'ayik xto   <u>naj</u> munil b'oj smam   …
       one   day   went he work with his.father
       One day he went to work with his father [and he was very happy when they started their journey].

The first line introduces the two main protagonists, both as indefinites (*hune' ya' komam* 'a man', *hune' sk'ahol* 'a son of his'). The second line is presented in two chunks, separated by the comma: the first (a nominal expression) picks out one of the two protagonists introduced in the first line, the son; the second (a pair of conjoined clauses) says something about that son. Syntactically, the construction in (25b) is an instance of *Left Dislocation*, a structure in which an expression (here a NP) is loosely attached to the left edge of a full sentence, often anteceding a pronoun (underlined above) in that sentence. Pragmatically, it is a prototypical topic-comment structure. The left-attached

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[13]The orthography in (25), as well as that in (33), as been modified in accord with current practice (Academia de las lenguas mayas de Guatemala, 1988).

element, *sk'ahol ya' ti'* 'this son of his', is the *topic*. It denotes the entity which the utterance is about. The host sentence is the comment – it says something about that entity. The topic in (25b) is thus called an 'aboutness' topic.

Reinhart (1982) introduced an influential approach to 'aboutness' topics based on the assumption that new information is not added to the common ground in an unstructured way. Rather it is associated with entities, much as information in a file card system is associated with a file card having a certain heading. The topic identifies the entity with which the new information (the comment) should be associated. From this perspective, the initial topic phrase in (25b) identifies the 'address' at which the information presented by the comment is entered. This provides a common sense explanation for the fact that cross-linguistically, the topic tends to precede the comment: if information is to be stored in some location, processing it is easier if the hearer knows in advance what that location is.[14]

The linguistic encoding of topic-comment structure thus plays an important role in managing the common ground. In the Jakaltek example, Left Dislocation *establishes* a topic, selecting from among the two protagonists introduced in the first line. Accomplishing this often requires, as in (25b), that the topic take the form of a lexical NP, one which is explicit enough to identify the topic. Once the topic is established, subsequent references to it can be via minimal pronouns ($\varnothing$ in languages with null pronouns), as in the rest of (25b) and (25c). That is, there is a presumption that once a topic is established, that it persists in subsequent discourse until a *topic shift* is indicated (see Givón 1983 on topic continuity).

Left Dislocation is also a common device to indicate a topic shift. This is its function in (1c), from the Tsotsil excerpt about the San Andrés girl, where it shifts the topic from the men to the girl. (26) shows an example from Jakaltek. In the immediately preceding context, the main protagonist is involved in conversation with a group of women, the *lloronas*. After a stretch in which he is thinking and speaking, (26) shifts the topic to the women.

(26) Jakaltek (Datz, 1980, 330)

Heb' ix   yorona, x'aq'lokan sk'ul   heb' ix   …
PL   CLF llorona were.filled their.stomach PL   CLF
The lloronas, they were happy, [they answered him].

Topic shifts do not always require a special syntactic construction. Since the persistence of a topic in subsequent utterances is usually indicated by use of a minimal pronoun, the use of a full lexical expression in its base position to refer to a discourse referent can be sufficient to indicate that the topic has shifted. In the Jakaltek text

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[14]This links topic-comment structures to the two-step 'categorical judgment' of the philosopher Anton Marty, explored from a linguistic perspective in Kuroda (1972, 1992) and Ladusaw (1994). The act of making a categorical judgment requires first the apprehension of an entity and then, the attribution of a property to it.

which starts with the lines in (25), the son retains his role as topic throughout most of the narrative, but the father is occasionally promoted to topic. In some examples, the expression referring to him is attached on the left periphery, but in others it is simply realized as a lexical NP in its base position. This choice might be related to establishing topics which persist over longer stretches (dislocated) versus ones which are short-lived (not dislocated).

Given the presumption of topic continuity, continuing topics do not usually require the use of special syntactic constructions. However in many languages, there is a default association between topic status and grammatical subjecthood. Hence, when the topic corresponds to the argument which would *not* be realized as subject in an unmarked active clause, this may motivate the use of more marked constructions, e.g., passive, to maintain the default association, or inverse, to signal a deviation from it (Givón, 1983).

'Managing' the topic thus involves various operations: introducing into the discourse context a referent which can serve subsequently as topic, establishing a referent as topic, indicating persistence of that topic, shifting the topic to a new referent. The linguistic devices used for these functions are different, as indicated above, and in documenting 'topic', it is therefore crucial to distinguish among the various functions (see also Büring (2016) on this). An important observation is that establishing a new topic comes with some degree of contrast as the speaker selects the current topic from a larger set of potential (alternative) topics. For this reason, the introduction of a new or switch topic is often encoded in the same way as a contrastive topic (see §4.2 and §5 below).

A final point concerns the relation between topic and focus. These are sometimes seen as 'opposites' or 'complementaries', but they are actually relations on different dimensions of information structure. While the focus-background partition has to do with identifying the point of new information, and distinguishing it from what is presupposed, the topic-comment partition has to do with what we are talking about, and what information the sentence adds to what we already know. Consider an utterance like *the children went to school* as a response to the question, *where did the children go?* The partitioning on the two dimensions is not parallel.

(27) a. Where did the children go?

   b. i. [the children]$_{topic}$ [went to schóol]$_{comment}$

       ii. [the children went (somewhere$_x$)]$_{background}$ [x = to school]$_{focus}$

On the first dimension, *the children* is topic and *went to school* is the comment. This partition is reflected syntactically in the subject-predicate division. The partition on the focus-background dimension is not paralleled in the syntax. The background has a logical form roughly like *the children went somewhere* and the focus is *(to) school*. The two dimensions are distinct, but there are relations between them. In particular, the topic is generally part of the background and the focus is generally part of the comment, as in

(27).[15]

4.2 Marking Topic

In this section, we discuss some of the linguistic devices used to *establish* or *shift* a topic. See Gundel (1988) and Güldemann et al. (2015) for overviews of topic marking (the latter again with an emphasis on languages of Africa). We focus on syntactic and morphological devices which are reserved for topics (or at least have as one of their principal functions, the signalling of the topic). Not discussed are devices that may indicate *topic persistence* (the use of pronouns, voice alternations, etc.).

4.2.1 Syntactic position

Left dislocation constructions (LD) are a cross-linguistically recurrent device for establishing and shifting topics. As illustrated above for Tsotsil and Jakaltek, these partition the utterance into relatively independent constituents corresponding to topic and comment. A topic shift function has been described for LD in English (Gregory and Michaelis, 2001), German (Frey, 2004), and Czech (Sturgeon, 2008), among others.

When the topic is more tightly integrated into the sentence containing the comment, it may be less clear that it occupies a position dedicated to *topic*, rather than simply occupying an alternative *subject* position, perhaps with some discourse restrictions. Dayley (1985) provides a nuanced discussion of the relation between word order and discourse status in Tz'utujil (Mayan), a VOS language in which pronouns are not pronounced. He characterizes VS order in intransitive clauses as the more basic, used always '(i) when the existence of the subject is not presupposed and [ii] when the subject is presupposed but is being introduced into the conversation' [p. 302]. Under either condition, the referent is not part of the common ground.

(28) Tz'utujil (Dayley, 1985, 302)

    a. Xpi   jun aachi Xelaju'.
       came one man Quetzaltenango
       A man came from Quetzaltenango.

    b. Aj-nawala'   ja   wxaayiil.
       one.of-Nahualá DET my.wife
       My wife is from Nahualá.

On the other hand, intransitive clauses in Tz'utujil show SV order 'when the subject is the topic of the discourse in general' and 'generally, when the subject is given information'

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[15]Some work relates the two dimensions in a single hierarchic structure. Neeleman et al. (2009) assumes that an utterance is partitioned first into topic and comment, with comment further partitioned into focus and background (with background understood more narrowly than above); Vallduví (1994) proposes an initial partition into *focus* and *ground* (= what is here called *background*), with *ground* further partitioned into *link* (roughly equivalent to *topic*) and *tail* (the rest).

[Dayley, p. 302], i.e., when the subject *is* part of the common ground.

(29) Tz'utujil (Dayley, 1985, 303)
      Ja   nuuchaaq' xajnamaji ja   toq   laj x-ch'ejyi.
      DET my.brother fled   DET when IRR CP-be.hit
      My brother fled when he was going to be beaten.

Pragmatic conditions on the material that occupies this preverbal position in Tz'utujjil are thus consistent with it being reserved for topics. The question is whether it is a 'topic' position or rather an alternative 'subject' position restricted to expressions denoting individuals in the common ground. In deciding this, it is important then that this position is in fact *not* restricted to subjects. It is a particularly common position, for example, for the possessor of a post-verbal unaccusative subject, especially if the possessor is human-referring:

(30) Tz'utujil (Dayley, 1985, 327)
      [Ja   nata']$_{TOP}$ k'o jun ruukeej.
      DET my.father ∃   one his.horse
      My father has a horse (lit: my father's horse exists).

Grammatically, (30) asserts the existence of a horse of my father's. But by placing the possessor in preverbal position, 'my father' is presented as topic, with the rest of the sentence providing information about him. The syntactic partitioning of the sentence is determined then by its topic–comment structure, not by its syntactic relations. (31) shows a minimal pair. The English translations reflect the topic-comment structure of these examples: (31a) is about the horse's tail, while (31b) is about the horse.

(31) Tz'utujil (Aissen, 1999, 180)

      a. [Ja ruujeey ja   keej]$_{TOP}$ qas nim.
          DET its.tail   DET horse   very big
          The horse's tail is very long.

      b. [Ja keej]$_{TOP}$ qas   nim [ruujeey]
          DET horse   very big its.tail
          The horse has a long tail.

The left periphery is a common syntactic position for both (contrastive) focus and topic (this section and §3.2.3), but morphosyntactic differences between them can make it clear that we are dealing with structurally distinct positions. Languages with the two left-peripheral positions often allow both to be occupied, with the topic generally preceding the focus. This is the order enshrined in the structural proposal of Rizzi (1997); see Neeleman and van de Koot (2016) for discussion. Examples include Hungarian (Brody, 1990; É. Kiss, 1998), Mayan (Aissen, 1992), Italian (Rizzi, 1997), and Gungbe (Aboh, 2016). (32a), from Tz'utujil (Mayan), shows an object topic followed by a subject focus; (32b) shows a subject topic followed by object focus.

(32) Tz'utujil (Dayley, 1985, 308-9)

    a. [Jar iixoq]$_{TOP}$ [jun aachi]$_F$ x-ch'ey-ow-i.
       DET woman a man CP-hit-AF-INTR
       The woman, it was a man who hit her.

    b. [Ja gáarsa]$_{TOP}$ cheqe [ch'uu']$_F$ n-ee-ruu-tij.
       DET heron only fish ICP-ABS3PL-ERG3SG-eat
       Only fish the heron eats. (= It's only fish that the heron eats)

Another difference in Tz'utujil (and many other Mayan languages) is that a focussed agent, as in (32a), is morphologically marked by special 'agent focus' (AF) verbal morphology plus absence of ergative agreement (see §3.2.3), while an agent topic is not, (32b).

    Further, left-peripheral topics often antecede a pronoun in the associated clause, while fronted foci do not (Neeleman and van de Koot (2016) propose that dislocated foci never do, but see Drubig and Schaffer (2001, 1093ff.)). (33a,b) from Jakaltek (Mayan) are a minimal pair: the topic in (33a) antecedes an overt pronoun (underlined), while the focus (33b) does not (again, agent focus is marked by AF morphology and absence of ergative agreement, while topicalization of the agent is not).

(33) Jakaltek (Craig, 1977, 11-12)

    a. [Naj pel$_i$]$_{TOP}$ [x]-s-maq <u>naj$_i$</u> ix.
       CLF Peter CP-ERG3-hit he her
       Peter, he hit her.

    b. Ha' [naj]$_F$ x-maq-ni ix.
       FOC he CP-hit-AF her
       It's he who hit her.

Other differences between left peripheral topics and foci include [1] the possibility of multiple topic positions at the left periphery, but not multiple focus positions, a difference again observed in Italian (Rizzi, 1997), Hungarian (Brody, 1990; Szendröi, 2003; É. Kiss, 2007), and Tsotsil (see (50) for an example of multiple topics); and [2] sensitivity of focus constructions, but not topic constructions, to island constraints (see Ross 1967; Chomsky 1977; Rizzi 1997; Drubig and Schaffer 2001, among many others).

4.2.2 Morphological markers

Although there has been some disagreement in the literature about exactly what relation it marks, the postposition *wa* of Japanese is often considered a topic marker. In this, it contrasts with *ga* which (among other things) is a *subject* marker (Kuno 1973; Portner and Yabushita 1998).[16] The examples in (34) are a minimal pair, differing only in whether

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[16]Kuroda (1972, 1992) argues that *wa* marks the 'subject' of a categorical judgment, rather than the topic (see fn. 14). Teasing these two notions apart goes beyond what is possible here.

the external argument, 'dog', is marked with *ga* or with *wa*.

(34)   Japanese (Kuroda, 1972, 165)

    a. Inu <u>ga</u>   neko o   oikakete iru.
         dog NOM cat   ACC chasing is
         A/the dog is chasing a cat.

    b. Inu <u>wa</u> neko o   oikakete iru.
         dog TOP cat   ACC chasing is
         only The dog is chasing a cat.

wa forces a definite interpretation on the external argument, while *ga* is compatible with either a definite or an indefinite interpretation. Since topics are usually already in the common ground, they are usually definite. Further, *wa* is only possible with an expression that has an identifiable referent. For that reason, it is incompatible with indefinite expressions:

(35)   Japanese (Kuno, 1973, 37)

    a. Dare ga/*<u>wa</u>   kimasita ka?
         who NOM/TOP came   Q
         Who came?

    b. Dareka ga/*<u>wa</u>   kimasita.
         who   NOM/TOP came
         Someone has come.

    As with the left-peripheral position in Tz'utujil, the topic particle is not restricted to subjects, i.e., it is *not* a subject case marker. In (36a), it marks the grammatical object (the Japanese is in active voice; the English translation is passive because English tends to realize the topic in subject position when possible); in (36b), it marks a locative.

(36)   Japanese (Kuroda, 1972, 168)

    a. Neko <u>wa</u> inu ga   niwa   de oikakete iru.
         cat   TOP dog NOM garden in chasing is
         The cat is being chased by a dog in the garden.

    b. Niwa   de <u>wa</u> inu ga   neko o   oikakete iru.
         garden in TOP dog NOM cat   ACC chasing is
         In the garden, the dog is chasing the cat.

In (36b), the topic carries both a postposition which indicates its semantic role (*de*) and one which indicates its pragmatic role (*wa*).

    The word order in these examples suggests that not only is the topic marked in Japanese by *wa*, but also that it occurs in a left-peripheral position. Vermeulen (2009) argues that this is correct, citing examples like (37).

(37) Japanese

    a. Sono hon-<u>wa</u>   John-ga   katta.
       that book-TOP John-NOM bought
       Speaking of that book, John bought it.

    b. # John-ga   sono hon-<u>wa</u>   katta.
        John-NOM that book-TOP bought
       (same translation)

In Japanese then, topics are marked both morphologically and syntactically. The situation in Korean is similar: topics occur on the left edge and are marked by the particle *nun* (Lee, 2007).

4.3 Documenting topic

4.3.1 Naturally occurring discourse

The best way to study topic management in discourse is through naturally produced texts, as these are likely to document the various tasks involved: introducing discourse referents that will later function as topics, establishing a discourse referent as topic, continuing a discourse referent as topic, shifting the topic.

In the Jakaltek text whose first lines are cited in (25), tracking the discourse topic is relatively easy because the text is short, the story is simple, and the number of protagonists is small. In more complex texts, the number of factors relevant to topic choice is greater and discerning the structure of the discourse becomes more difficult. It can be useful therefore to supplement the study of natural speech with constructed materials that control discourse structure.

4.3.2 Constructed contexts

Questions of the form *What about X?* are often suggested as a diagnostic for topic, especially a new or shifted topic (an early reference is Gundel 1974/1989). If the target utterance provides a felicitous answer, then the expression which substitutes for X is an aboutness topic. QUIS (pp. 137-142) suggests this frame in connection with focus cards like those in Figure 2, e.g.:

(38) Q: What about Samuel?/What can you tell me about Samuel?

    A: [Samuel]$_{TOP}$ has apples.

This will reliably elicit a topic expression in the answer, but unless the context is carefully controlled, that topic is likely to be *contrastive* (see §5). If (38) is presented after the parallel question *What can you tell me about Willy?*, *Samuel* will be a contrastive topic and encoded as such. As noted earlier, shift topics are a variety of contrastive topic, so to some extent this is unavoidable. But the degree of contrast can be muted by interspersing

questions of different forms which elicit other information structure relations, e.g., *Does Willy have apples or bananas?*, *What about the bananas, who has them?*

Another way to elicit linguistic topics in a setting which is richer but still controlled is to ask a speaker to narrate a story which is presented in visual form (a story book or a film). What is needed here is a story with several protagonists who alternate as topics, and a fairly simple story line. Mercer Mayer's story *A Boy, A Dog, and a Frog* has often been used for this purpose, likewise the *Pear Story* film (Chafe, 1980).

A yet more controlled result can be obtained by asking the speaker to re-tell a story which she has been told in a metalanguage. QUIS develops such a task, using both a picture story and narration. The task involves two participants (the linguist and a speaker) and there are three steps:

- Step 1: Speaker looks at picture story.
- Step 2: Linguist narrates story in metalanguage.
- Step 3: Speaker is asked to re-tell story.

An example is shown below from QUIS pp. 151-152. Step 1 involves *Tomato Story* illustrated in Figure 3 (read the top line, left-to-right, and then the bottom line, left-to-right; read the double frames, top to bottom). Step 2 – narration of the story by the researcher
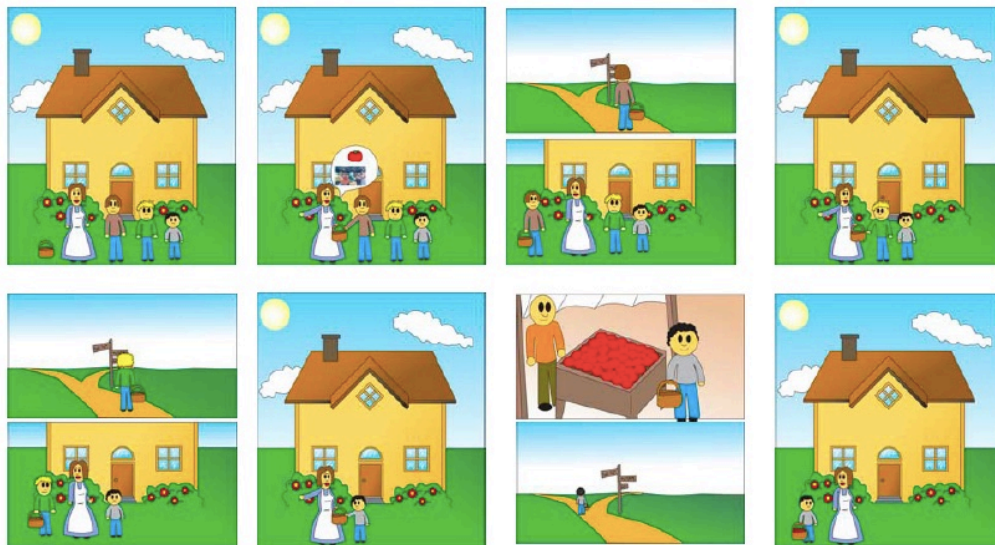

Figure 3

– might proceed as shown in Table 2, from QUIS. Identification of topic and focus in each line has been added, per my own judgments.

This story has a simple structure in which the main protagonists (a mother and her three children) are introduced in the first line, followed by a sequence of events involving the mother and each of the three children in turn. The topic alternates between the mother and one child or another, roughly with this structure: MO-CH-MO-CH-MO-CH. There are thus several points at which topic shifts occur, and topics tend to persist for at

Table 1. Constructed context for eliciting topic

	Line Text	Topic	Focus
1	Once upon a time, a mother had three children.		
2	One market day, she sent her eldest child to the market to buy tomatoes because she wanted to cook tomato soup.	MO	
3	The child took a basket and ∅ set off to the market	CH_1	
4	But it couldn't find the right road and ∅ came back without the tomatoes.	CH_1	
5	Then the mother sent the second child.	MO	CH_2
6	This child, too, set off, ∅ lost its way, and ∅ came back without tomatoes.	CH_2	
7	So the mother sent her youngest child to the market.	MO	CH_3
8	This child found the right way	CH_3	
9	It arrived at a market stall, ∅ bought tomatoes and ∅ came back to its mother.	CH_3	
10	They were very happy and the mother cooked the tomato soup	MO + CH	

least a few lines.

The English version shows repeated use of non-reduced nominal expressions in argument position to shift the topic and the use of reduced expressions (either a personal pronoun or ∅, depending on the syntax) to refer to the topic, once it is established. For example, the eldest child is established as topic of line 3 and persists as topic in line 4. The initial reference is by means of a non-reduced nominal, and all following references by either a pronoun or ∅. Once we get past line 2, references to the mother are always via a non-reduced expression since she is repeatedly re-introduced as topic after a few lines in which one child or the other plays that role. Since the topic always occurs in its thematic position and is not specially marked, this story shows no special marking for the topic. Of course this might be different in the re-telling, depending on the language.

There are two other information structure relations in this narrative. One is generated by the sequence of parallel events in which the mother sends first one, then the next, then the youngest child to the market. The child in line 5 contrasts with the one in line 2, and the one in line 7 contrasts with both children mentioned earlier. They are *contrastive foci*. In English, this is conveyed through pitch accent on *the second child* (line 5) and *her youngest child* (line 7) (this is especially clear in line 7, where the pitch accent retracts to the focus), but again, in the re-telling it may be conveyed differently, depending on the target language.

The other relation, also involving the three children, only becomes salient in line 8. At that point, the success of the third child in getting to the market contrasts with the failure of the other two. In English, this is characterized by special intonation on *THIS child*, intonation which is associated in English with the *contrastive topic*. We close with a more systematic discussion of this relation.

5 Contrastive topic

5.1 Characterizing contrastive topic

The fragment in (39) is a simpler example of contrastive topic. (39) raises a question (Q) about my siblings, who have already been introduced into the common ground. The answer (A) considers each in turn, specifying the profession first of one and then of the other.

(39) Q: What do your brother and sister do?.

      A: i. My BROTHER [is a musícian]$_F$.

           ii. My SISTER [is a núrse]$_F$.

The subjects of (i) and (ii) are contrastive topics. Each is the topic of its own sentence, but the two contrast with respect to the predicate.[17]

Büring (2003) suggests an approach to contrastive topic (CT) in terms of raising questions (see also Büring 2016). The question in (39) implies subquestions – *what does your brother do? what does your sister do?* The answer addresses the subquestions, first considering one sibling and then the other. Each response consists of a pair, associating with each person their profession. The members of the set that organizes the reply (*the brother, the sister*) function as CT's; the other value is the focus, in the sense of §3. A CT is therefore generally paired with a focus. In English, the CT is marked by what Jackendoff (1972) called the "B-accent", a characteristic 'rise-fall' intonation or, in a more exaggerated form, a 'rise-fall-rise'. (This accent is indicated here by small caps on the word bearing the B-accent.) The focus is marked by pitch accent, as usual.

In (39), the main question (*what do your brother and sister do?*) is completely resolved by the answers to the subquestions. However, this is not necessary. The interchange can end after the first answer (i), with the B-accent still associated with *my brother*. In that case, the accent implicates that the answer provided is only a *partial* answer to the main question (the CT here is a 'partial' topic), that there are other subquestions relevant to answering Q. Given Q, it is clear that the answer in (i) is partial and the nature of the 'other' question is also clear. But the B-accent is possible on a CT even when the reply *does* exhaustively answer the question posed:

(40) A: Where were you on the night of the murder?

      B: [I]$_{CT}$ was [at hóme]$_F$.

In this case, the B-accent implicates that there are other questions which are relevant to settling the larger question, which here has to do with identifying the murderer (Büring calls this a 'purely implicational' topic). In Büring's account, the B-accent in English simply implies the existence of *other* relevant questions.[18] It informs the hearer that

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[17]This relation is variously termed *S-topic* (Büring, 2003), *double focus of contrast* (Chafe, 1976), *i-contrast* (Molnár, 2002), *focused topic* (Portner and Yabushita, 1998), among others.

[18]In (39), this is satisfied for (i) by (ii) and for (ii) by (i).

the asserted proposition forms part of a larger strategy of inquiry. The larger context determines what counts as a 'relevant' question. When there is an explicit question which references a plural set, as in (39), it is easy to see what is relevant. In a case like (40), determining what the 'other' relevant questions might require specific cultural knowledge.

In *Tomato Story* (Table 1), the subject of line 8 (*that child*, referring to the third child) is a CT. In a natural reading, it carries the B-accent, indicating that there are other questions relevant to the larger inquiry. In this case, those questions concern the success or failure of the other children in finding the right road and coming back with tomatoes, questions which are addressed earlier in the story.

CT's share properties both with *non-contrastive* topics and with contrastive *foci*. A contrastive topic is like a non-contrastive shift topic in that it establishes a new discourse topic, one which is selected in this case from a plural set introduced in the preceding discourse. On the other hand, it is like a contrastive focus in that it evokes reference to alternatives. A difference is that while a contrastive focus usually has an exhaustive reading, a CT is non-exhaustive. If the answer in (39) ends with (i), the hearer infers that the issue of what my siblings do has not been fully settled and probably that my other sibling (the sister) is not a musician.

5.2 Marking contrastive topics

5.2.1 Prosodic prominence and morphology

Prosodic prominence alone is sufficient to identify the CT in English. While the CT is often found in subject position, and thus at the left edge of a clausal constituent, it can occur in non-subject position and, if associated with the B-accent, be interpreted as CT (topicalization of the CT is perhaps more natural though, see below):

(41) a. What did you give each grandchild?

b. I gave LILY_CT [a díary]_F and SIMON_CT [a magazíne subscription]_F.

Neeleman et al. (2009) show that the CT in Dutch, which is marked by a similar contour, can also remain in its base position.

In Japanese and Korean, the CT is marked by a particle: *wa* in Japanese and *nun* in Korean (Vermeulen, 2009; Lee, 1999). The same particles also mark *non-contrastive* topics in those languages, but the two functions are distinguished prosodically: a CT is associated with prosodic prominence (high tone), while a non-contrastive topic is not. Constant (2014) argues that the particle *ne* is a CT marker in Mandarin, and that its 'scope', i.e., the CT itself, is realized by stress.

It is not the case, though, that prosodic prominence always distinguishes CT's from non-contrastive topics. In Tsotsil (Mayan), for example, the CT occurs in the same left-dislocated position as a non-contrastive (shifted) topic, but the two are not prosodically

distinct.

5.2.2 Syntactic position

A typologically recurrent pattern is for the CT to occur on the left periphery. But the properties of constructions with left-peripheral CT's vary considerably and need to be investigated on a language-by-language basis. Further, since other information structure relations – especially contrastive foci and non-contrastive topics – also often occur at the left edge, the position of CT's needs to be seen as part of a larger inquiry into the positions occupied by these other relations. In some languages, contrastive topics occupy the same position as contrastive *foci*, with that position thereby associated with *contrast*. In some languages, contrastive topics occupy the same position as *non-contrastive* topics (especially, shifted topics), with the position thereby associated with *topic*. And in some languages, there appears to be a construction which is dedicated to CT's. We discuss some examples of these situations in what follows.

In Finnish, CT's and contrastive foci can occur in what Vilkuna (1995) and Molnár (2002) analyze as the same left-peripheral position, i.e., in a position associated with *contrastive* elements, whether topics or foci. In the context of (42-A), the left-edge phrase in (42-B) (uttered by a different speaker) is understood as *corrective focus*.

(42)   Finnish (Molnár, 2002, 152)

    A: Pekka lensi Tukholmaan.
        Pekka flew Stockholm.to
        Pekka flew to Stockholm.

    B: [Reykjavikiin]$_F$ Pekka lensi.
        Reykjavik.to   Pekka flew
        Pekka flew to Reykjavik$_F$.

In both (43a,b), the left-edge phrases are CT's with the paired focus (the airline) in post-verbal position.

(43)   Finnish (Molnár, 2002, 158)

    a.   [Tukholmaan]$_{CT}$ Pekka lensi [Finnairilla]$_F$ …
       Stockholm.to   Pekka flew Finnair.by
       To Stockholm, Pekka flew by Finnair …

    b.   [Reykjavikiin]$_{CT}$ Pekka lensi [Icelandairilla]$_F$ …
       Reykjavik.to   Pekka flew Icelandair.by
       To Reykjavik, Pekka flew by Icelandair …

The position for *non-contrastive* topics, e.g., *Pekka* in (42b) and (43a,b), follows the position for contrastive elements. In a similar vein, Neeleman et al. (2009) argue that there

are positions at the left edge of the clause in Dutch which can be occupied either by contrastive foci or by CT's.

In both Tsotsil and Tz'utujil (Mayan), contrastive topics align more closely in their syntax with *non-contrasive* topic than with contrastive *focus*. The position of non-contrastive topics in Tz'utujil was discussed in §4.2.1 and illustrated by (29)-(30). The position for CT's appears to be the same; the only visible difference is that the final CT in a set of CT's is marked by a contrastive particle which Dayley (1985) describes as follows: 'the two particles *k'aa(r)* and *k'ii(r)* are both used to indicate a shift to a new or different topic in discourse, and they also indicate that the new or different topic directly contrasts with one previously under discussion' (p. 258):

(44) Tz'utujil (Dayley, 1985, 258)
[after talking about introduced Chinese threads …]
[Ja k'ii   b'atz'in   b'atz']_{CT} [xel   kan pan ejqaal]_F.
DET CONTRAST handspun thread   went.out stay by little
As for handspun thread, it went out little by little.

(45) Tz'utujil (Dayley, 1985, 365)
Juan ate his tortillas …
[Ja k'aa   Ta   Mari'y]_{CT} xuutij [kaxlanway]_F.
DET CONTRAST Miss María   ate   bread
[but] María ate bread.

In Tsotsil too, CT's occupy the same position as non-contrastive shifted topics, a left-adjoined position in a LD structure (see §5.3.1). In both languages, contrastive focus occupies a different position, following the topic (Dayley, 1985; Aissen, 1992) (see 32a,b) for Tz'utujil).

A number of languages have formally similar structures for contrastive and non-contrastive topics, but ones which are still clearly distinct. Czech is such a language. Sturgeon (2008) compares the syntax and pragmatics of two constructions in which 'topics' occur at the left-periphery.[19] In one, *Hanging Topic Left Dislocation* (HTLD), the peripheral topic antecedes a personal pronoun which remains in its base position. This construction is used to establish a new topic, as suggested by the continuation in (46).

(46) Czech (Sturgeon, 2008, 95/104)
[Tu krátkou knížku]_{CT}, dočetla jsem   ji   včera.   Byla moc zajímavá.
that short   book.ACC read   AUX.1SG it.CL yesterday was very interesting
The short book, I read it yesterday. It was very interesting.

In the other, *Contrastive Left Dislocation*, the left peripheral topic also antecedes a pronoun, but in this case, it is a demonstrative pronoun (underlined below). Further, the

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[19]She discusses a third as well, which is a variant of *HTLD*.

demonstrative does not occur in its base position, but is moved to a clause-initial position. This construction has a CT interpretation, as suggested by the sequence of CT constructions in (47). Together they provide an exhaustive answer to the question under discussion, but neither one does so by itself.

(47) Czech (Sturgeon, 2008, 104)
[Tu krátkou knížku]$_{CT}$, <u>tu</u>$_i$ jsem dočetla t$_i$ včera, ale [tu
that short book.ACC that.ACC AUX.1SG read yesterday but that
dlouhou]$_{CT}$, <u>tu</u>$_j$ dočtu t$_j$ přistí týden.
long.ACC that.ACC read next week
The short book, I read yesterday, but the long one, I will read next week.

Although it is not clear that the lexical topic phrases in (47) themselves move to the left edge of their respective clauses (they might be generated in that position), it is clear that there is movement within the clause itself, resulting in displacement of the demonstrative pronoun. The idea that displacement is associated with contrast is familiar from the syntax of contrastive foci, and Neeleman et al. (2009) suggest displacement is also motivated by contrastive topics. The Czech situation is consistent with this, as is German, where construction pairs with similar formal properties are associated with the same interpretational differences (Frey, 2004).

In English too, displacement is associated with a CT interpretation. While a CT can remain in its base position, it can also be displaced to the left periphery in so-called 'Topicalization' structures.

(48) a. [THESE examples]$_{CT}$ I found in [Gúndel]$_F$.

b. LILY$_{CT}$ I gave [a díary]$_F$ and SIMON$_{CT}$ [a magazíne subscription]$_F$.

The left-edge phrase in Topicalization is interpreted as a CT (Prince, 1998; Gregory and Michaelis, 2001). (48a) implies another question, *where did I find THOSE examples?*; in (48b), each sub-answer taken by itself is only a partial answer to the larger question, *what did you give your grandchildren?*

Topicalization in English contrasts both formally and functionally with Left Dislocation structures. In LD, the left peripheral element is more independent from what follows than in Topicalization, both prosodically and syntactically, and is presumably generated in its surface position, not displaced to it (the topic in LD is followed by a significant prosodic break and antecedes a pronoun in the subsequent clause; the topic in Topicalization has neither property). LD may have several functions, but one of them is to establish a (non-contrastive) topic (Rodman, 1974), not to present a CT.

5.3 Documenting contrastive topic

In documenting CT, the clearest cases will be ones in which the prior linguistic context contains an implicit or explicit question about a plural set, and where that question can

be broken down into subquestions, with each subquestion corresponding to one member of the plural set. This context licenses CT's in the answer. We focus here on examples with exhaustive (not partial) answers.

5.3.1   Naturally occuring discourse

Naturally occurring discourse provides rich examples of CT constructions. Consider (49) from Tsotsil, in which the narrator recalls an interchange that had involved himself and the addressee ('you'). The addressee had posed the question reported in (49a), *what do you all want to eat?* The question implies a set of subquestions, one corresponding to each individual referenced in the 2nd person plural pronoun. In addition, an explicit and closed set of possible food items is provided, *eggs or meat or chicken.*

(49)   Tsotsil (Laughlin, 1980, 93)

    a: You (SG) asked us what we all wanted to eat, eggs or meat or chicken.

    b: [A li   vo'oxuk xchi'uk jkumpatike]_{CT}, [ton=kaxlan]_F ak'anik,
       TOP DET 2PL   with   our.compadre egg   you(PL).request
       As for you and our compadre, you ordered [éggs].

    c: [li   vo'one]_{CT}, [bek'et]_F ijk'an,   yu'n   ….
       DET 1SG   meat   I.request because …
       Me, I ordered beef because …

The answer is broken down into sub-answers, with the first one, (49b) specifying what the addressee ('you') and a companion ('our compadre') ordered, and the second (49c) specifying what the narrator ('me') ordered. References to the various individuals are presented as CT's in the left peripheral position in a LD structure (Aissen, 1992). In each utterance, the food item is the focus. It is a selective focus – for each individual, it picks out the item that he ordered, and excludes the other potential alternatives. As a contrastive focus, it is fronted into preverbal focus position (compare (20)-(22)).

    (50) is an example, also from Tsotsil, where a CT occurs in a context in which the question (and subquestions) are not explicit and have to be reconstructed. In the context preceding (50), Peter has agreed to sell his pigs to a certain man. The larger question meaning is something like *how much of the pig will Peter sell? and how much will he not sell?*

(50)   Tsotsil (Laughlin, 1977, 86)

    a. All right, take them, but only the meat.

    b. [A li   snee]_{CT}, [a li   xchikine]_{CT}, mu jchon.
       TOP DET their.tails TOP DET their.ears   NEG I.sell
       The tails and ears I won't sell.

(50b) addresses the second subquestion (*how much of the pig will he not sell?*) and contains CT's, namely 'their tails' and 'their ears'. Adopting Büring's account, the presence of CT's should imply the existence of another question meaning in the context which is relevant to answering the larger question. This is correct: the other question is *which parts WILL Peter sell?* That question is implicit, but it is clearly identifiable, as it was answered by the previous assertion, (50a).

As a final example, consider (51), an English example discussed in Prince (1998):

(51)   "She had an idea for a project. She's going to use three groups of mice. *One*, she'll feed them [móuse chow]$_F$, just the regular stuff they make for mice. *Another*, she'll feed them [véggies]$_F$. And THE THIRD, she'll feed *t* [júnk food]$_F$."

The second sentence introduces a plural set – three groups of mice – and raises a general question *what is she going to do with each set?* Judging from what follows, the speaker has in mind a narrower question, *what is she going to feed each set?* The last three lines answer those subquestions. There are two different constructions in those answers: the first two involve LD (with the topic anteceding an anaphoric pronoun) and the last involves Topicalization. It is not clear that the first two involve CT's – as the example is presented in written form, we do not know whether the dislocated elements, *one* and *another* are pronounced with a B-accent or not. But it seems safe to assume that the third topic (*the third*) is a CT. Let's focus just on whether the CT is licit in this context, and not on the initial phrases in the first two clauses. For Büring, the CT is licit if there is at least one other question meaning in the context which is relevant to answering the larger question (*what is she going to feed x?*). This there clearly is: two such questions are answered by the previous two clauses.

Examples like these from Tsotsil and English are rich and illuminating, and they show how valuable naturally occurring speech can be in documenting information structure relations. Again, though, it is in the nature of such examples that they provide only partial information. Hence there is a role too for the use of constructed materials in documenting contrastive topic.

5.3.2   Constructed contexts

The QUIS focus cards that were used earlier to illustrate how contrastive *focus* can be elicited in very short dialogues can also be used to elicit contrastive *topics*. Consider Figure 2, above. Each prompt in (24) (e.g., *who has the apples, Samuel or Willy?*) invites the hearer to consider alternative scenarios and to select from among them.

To elicit CT readings in connection with Figure 2, we ask the hearer to respond to prompts like those in (52):

(52) Eliciting CT expressions with reference to Figure 2

    a. Describe what you see!

    b. What does each boy have? (CT = subject, focus = object)

    c. How many pieces of fruit does each boy have? (CT = subject, focus = quantity)

Again, the hearer considers alternate but parallel scenarios. Here though the form of the prompt indicates a set of subquestions, each of which must be addressed for a complete answer. (52a) evokes the subquestions *what does Samuel have? and what does Thomas have? and what does Willy have?* The response, if organized by boy, makes the NP denoting each boy the CT of its sentence, with the associated food item (or no item) the focus. (52b) triggers the same reply, using a WH question. Here the form of the question biases the CT in the answer towards the boys, rather than the fruit. The question, *what kind of fruit belongs to each boy?* would bias the CT to the fruit item, making each of the boys the focus in its clause (*the apple belongs to X, the bananas belong to Y*). This is less natural than the one suggested by (52b) though: the boys, being human and individuated, are more likely to organize the response than the fruit items.

A similar task elicits contrastive topics in parallel events, rather than in parallel stative situations.. The materials could involve pairs of cards which are presented to the hearer as successive events, with the hearer asked to explain what is happening. Each pair represents parallel events which differ on multiple points, e.g., a man riding horse, a woman riding a camel; a; a girl petting a dog, a boy chasing a cat.

Contrastive topic can be elicited less directly, and in a more naturalistic setting, by asking the speaker to re-tell a story which is constructed so as to include contexts which support CT's. We saw already that the *Tomato Story* elicits not only new, shifted, and continuing topics, but also a CT. In the QUIS-designed task, the speaker sees the picture story, hears a version of it in a meta-language, and is then asked to re-tell it.

5.3.3 Translation

Contrastive topics can also be documented through translation tasks. Here, the input is given in oral or written form in a meta-language, and the speaker is asked to translate it in oral form. For example (from QUIS, p.226):

(53) The Joneses know how to make a delicious meal. [The lady]$_{CT}$ made lamb curry, and [her husband]$_{CT}$ prepared a fruit salad.

(54) These dishes are both delicious. [That dish]$_{CT}$ was cooked by my grandmother, and [this dish]$_{CT}$ was prepared by Maria.

The first sentence establishes the relevant setting, which includes a plural set (the Jones, these dishes), and can be intepreted as raising a set of implicit sub-questions dealing

with each member of the set. The second sentence provides a sequence of answers which address those subquestions. The input can be constructed so as to systematically explore the realization of CT (and associated focus) bearing different grammatical relations and varying with respect to inherent properties like humanness and animacy.

6   Conclusion

We have discussed four information structure relations in this paper: two types of focus (*information focus* and *contrastive focus*) and two types of topic (*non-contrastive* and *contrastive*). Documenting these relations in particular languages requires understanding the discourse contexts which license them. Armed with this understanding, we can begin to identify the various relations in naturally occurring speech and to elicit examples via constructed materials.

Documentation of topic and focus should start with naturally occurring speech so as to get a sense of what occurs – the range of constructions that exist, and the contexts in which they occur. Such speech comes with its context already in place, a context which can be rich and interesting in ways that constructed materials rarely are. Constructed contexts produce speech in an artificial setting, but it is one which can be controlled, and it permits documentation of a fuller range of possibilities. Coupled with the study of naturalistic speech, it can lead to a broad and substantial understanding of how these relations are realized. Understanding the limits of various constructions often involves elicitation, and requests for judgements from speakers. For reasons that are clear by now, materials to be translated or judged cannot be presented in isolation, but must be part of a larger context.

We noted at the outset that questions – both explicit and implicit – play an important role in determining the direction in which the common ground develops and therefore in identifying the contexts which support topic and focus relations. Questions also play an important role in the task of documenting these relations. For all of the IS relations discussed here – focus, contrastive focus, topic and contrastive topic – the right questions based on appropriately constructed contexts elicit utterances which contain elements bearing those relations. In the case of information focus, an appropriate question is a single WH question whose answer does not require selecting from among a set of alternatives, e.g., *what is the woman eating?*, in a context in which the only individual is a woman. Contrastive focus is elicited via questions whose answer *does* involve selection from a set of alternatives (equivalent to disjunctive yes-no questions), e.g., *is the woman eating an apple or a banana?*, in a context where the woman is eating only one of the two. Switch topics can be elicited via *what about X?* or *what can you tell me about X?*, while continuing topics will be encoded in the answers to single WH questions e.g., *what is the woman eating? [She]$_{TOP}$'s eating an apple.* Contrastive topic can be elicited in a context where there are multiple individuals engaged in parallel but distinct activities, e.g., a

man eating a banana and a woman eating an apple, *what is each person eating?*

Understanding what contexts to construct and what questions to ask is useful not only in eliciting IS relations, but also in identifying them in naturally produced speech. Even when the relevant questions are implicit (as they often are), it is important to verify that the relations have been correctly identified by checking that the relevant question, once made explicit, is appropriate in the context.

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