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Before we can address LI in Bantu, it is important to understand the nature of the Bantu noun class system (Katamba 2003): Most Bantu languages have a number of different noun classes which are similar to grammatical genders although the classification follows certain semantic principles. Each noun in Bantu inherently belongs to one class. What is special is that Bantu languages have a large number of such classes, sometimes more than 20. The noun classes usually appear as prefixes to the noun and trigger (often phonologically similar) agreement marking on demonstratives, pronouns, adjectives and verbs

Towards a Typology of Locative Inversion – Bantu, Perhaps Chinese and English – But Beyond?

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Abstract

Locative inversion (LI) is a construction that is very prominent in Bantu languages. It involves inversion of a locative with the logical/thematic subject. The inversion is accompanied by a reversal of grammatical functions whereby the locative becomes the subject. LI is associated with a special discourse function, that of presentational focus. Within Bantu there is quite some variation, especially concerning thematic restrictions and the robustness of locative morphology. While the subjecthood of locatives is relatively easy to diagnose in languages where they agree with the verb, an alternative analysis in terms of topicalization suggests itself when there is no agreement. LI has been described for very few other languages including English and Chinese. In both languages, the evidence for the subjecthood of the locative is limited or equivocal. LI thus appears to be a very rare phenomenon and this rarity may be the key to a fundamental understanding of the construction.

1. In Place of an Introduction: Locative Inversion in Bantu

Locative inversion (LI) is a term that is predominantly used for a construction found in Bantu languages where a subject and a locative are linearly inverted. We will first introduce what is often taken to be the prime example of LI, i.e. LI in Chichewa. In this language LI involves a reversal of grammatical functions, and to make meaningful crosslinguistic comparison possible, we will take this to be a definitional property of LI (i.e. LI in the narrow sense). Thereafter we will turn to Bantu-internal variation, discussing thematic restrictions, locative morphology as well as cases of LI that are arguably not accompanied by a reversal of grammatical functions (and therefore do not represent instances of LI in the strict sense). Finally, we address possible instances of LI in other languages. Since only limited information is available on languages other than Bantu, this article will not be a balanced typology of LI but rather an overview over the available literature. The apparent rarity of LI in the languages of the world will be the topic of the conclusion.

(as subject or object agreement). Here is an example from Swahili where the subject *toto* agrees with the demonstrative *le* as well as the verb *ona*. Additionally, the object *chungwa* agrees with the demonstrative *ha* and is also cross-referenced on the verb by *ya*- (Krifka 1995: 1399; the unmarked order is SVO, the subject appears immediately preverbally; noun classes are indicated by Arabic numerals):

(1) **Wa**-toto **wa**-le **wa**-na-ya-ona ma-chungwa ha-ya. 2-child 2-that 2-PRS-6-see 6-orange this-6 'That child sees this orange.' (Swahili)

We are now ready to approach LI.

I.2. CHICHEWA

Consider the following pair of sentences from Chichewa (Bresnan and Kanerva 1989: 2):¹

- (2) a) A-lendô-wo a-na-bwér-á ku-mu-dzi.
 2-visitor-2those 2-RECPST-come-IND 17-3-village
 'Those visitors came to the village.' (Chichewa)
 - b) **Ku**-mu-dzi **ku**-na-bwér-á a-lendô-wo. 17-3-village 17-RECPST-come-IND 2-visitor-2those 'To the village came those visitors.' (Chichewa)

The two sentences express the same propositional content but differ syntactically from each other: While in (2a) the theme occurs in preverbal subject position and the locative follows the verb, the reverse order obtains in (2b). The positional difference correlates with an agreement difference: While the verb agrees with the theme in (2a), it is apparently the locative that triggers subject verb agreement in (2b). Locative morphology is special in Bantu in that it is integrated into the noun class system: In addition to the inherent classes, there are derivational classes like diminutives and, crucially, locatives (classes 16–18), which occur in addition, i.e. prefixed to the regular noun class marker. They are the head of the phrase and, like inherent noun classes, determine agreement on verbs, pronouns and adjectives. Importantly, agreement with class 3 in (2b), the inherent class of the noun, is not possible. The three locative classes express different kinds of locative meanings. In addition to class 17 ku-, which is used for general location, Chichewa, like many Bantu languages, has class 16 pa- for specific and class 18 mu-/m- for interior location (Bresnan and Kanerva 1989: 3, 36):

- (3) a) M-mi-têngo mw-a-khal-a a-nyǎni.

 18-4-tree 18-PRF-sit-IND 2-baboon.

 'In the trees are sitting baboons.' (Chichewa)
 - b) Pa-m-chenga p-a-im-a nkhandwe.
 16-3-sand 16-PRF-stand-IND 9fox
 'On the sand is standing a fox.' (Chichewa)

The agreement facts in (2b) and (3) suggest that the locative is the subject. Bresnan and Kanerva (1989) argue indeed that the linear reversal is accompanied by a reversal of grammatical functions: The locative becomes the subject while the theme loses its subject

properties. Evidence for the subject status of the locative comes from a number of tests such as structural position, the control of implicit subjects of non-finite attributes and raising to subject. We confine ourselves to a raising example where the locative becomes the subject of the raising verb yamba 'start' (Bresnan 1994: 95):

Ku-mu-dzi kw-a-yamba ku-gwá mvûla. 17-3-village 17-PRF-start INF-fall 9rain 'At the village it has started to rain.'

(Chichewa)

While there is relatively solid evidence for the subject status of the preverbal locative, the grammatical function of the postposed logical/thematic subject is less clear: It fails the typical tests for objecthood in Bantu like passivization, relativizability or object marking. Here is an example illustrating that the theme cannot co-occur with object marking (Bresnan and Kanerva 1989: 15):

*Ku-mu-dzi ku-na-wá-bwér-a a-lendô-wo. 17-3-village 17-RECPST-20BJ-come-IND 2-visitor-2those Lit.: 'To the village came them, those visitors.'

(Chichewa)

As far as word order is concerned, however, inverted subjects behave like direct objects in that they have to occur immediately after the verb (Bresnan and Kanerva 1989: 4f.). The following pairs show that inverted subjects, like regular direct objects, occur adjacent to the verb, before verb phrase-related adjuncts (the subject in Chichewa is unordered with respect to the verb phrase, its position does not affect the grammaticality; postposed subject are thus not extraposed and do not receive an afterthought interpretation according to Bresnan and Mchombo 1987):

- a) [A-na-kwér-éts-a a-nyaní Chatsalira pá-njinga] 1-RECPST-ride-CST-IND 2-baboon 16-10bicycle 1name 'Chatsalira made the baboons ride on bicycles.' (Chichewa)
 - ??Chatsalira [a-na-kwér-éts-a pa-njingá a-nyǎni.] 1name 1-RECPST-ride-CST-IND 16-10bicycle 2-baboon (Chichewa)
- [vpKu-na-bwér-á a-lěndo pa-njinga] ku-mu-dzi. (7)a) 17-recpst-come-ind 2-visitor 16-10bicycle 17-3-village 'To the village came visitors on bicycles.' (Chichewa)
 - b) *Ku-mu-dzi [vpku-na-bwér-á pa-njinga a-lěndo.] 17-3-village 17-RECPST-come-IND 16-10bicycle 2-visitor (Chichewa)

The reversal of grammatical functions in (2b) is similar, but crucially not identical to the passive: LI does not involve derivational morphology and the logical/thematic subject (the theme) is not demoted to an optional adjunct: It occurs without a preposition (unlike oblique agents of regular passives) and cannot be omitted.²

The variants in (2) are not used in free variation: LI serves a special function in discourse, commonly referred to as presentational focus 'in which the referent of the inverted subject is introduced [...] on the scene referred to by the preposed locative' (Bresnan 1994: 85). The discourse function of the inverted theme helps understand why it lacks the typical object properties: Focalized elements are normally not easily relativized, and object marking, being dependent on topicality in Chichewa (Bresnan and Mchombo 1987), is incompatible with a focal element.

LI has been claimed to be an unaccusative phenomenon, i.e. being restricted to unaccusative verbs (motion and posture verbs and verbs of existence) and passivized transitives. (2) has already illustrated LI with an unaccusative verb; the following triple shows that passivized transitives, but neither active transitives nor unergatives (=agentive intransitives) allow LI (Bresnan and Kanerva 1989: 16, 18):

- (8) a) Ku-dâmbo ku-na-péz-édw-á mw-ána.

 17-5swamp 17-RECPST-find-PASS-IND 1-child

 'In the swamp was found the child.' (Chichewa)
 - b) *Ku-dâmbo ku-na-péz-á mâyi mw-ana. 17-5swamp 17-RECPST-find-IND 1Amother 1-child Lit.: 'In the swamp found the mother the child.' (Chichewa)
 - c) *M-mi-têngo mu-ku-ímb-á a-nyǎni. 18-4-tree 18-PRG-sing-IND 2-baboon Lit.: 'In the trees are singing the baboons.' (Chichewa)

Chichewa is often taken to be the core case of LI, but the following sections will show that there is quite some variation within Bantu suggesting that LI may not be a unified phenomenon syntactically.

I.3. VARIATION IN BANTU

In this section we will discuss a number of parameters of variation among Bantu languages. The variation only concerns the syntax of LI, but not its discourse function; LI is used for presentational focus in all Bantu languages.

1.3.1. Thematic restrictions

Bresnan and Kanerva (1989) speculate that the restriction to unaccusatives may be a universal property of LI. Demuth and Mmusi (1997) have shown, however, that in many Bantu languages, LI is possible with a wider range of verbs: It also occurs with passivized intransitives, passivized ditransitives and active unergatives. Marten (2006) extends the typology by including Herero where LI is possible even with active transitives. Here are examples with an active unergative and an active transitive verb (Marten 2006: 113, 117):

- (9) a) Kò-mù-tí kw-á-pósé òzó-ndjìmá. 17-3tree 17-PST-make.noise 10-baboons Lit.: 'In the tree made noise (the) baboons.' (Herero)
 - b) Pò-ngàndá pé-térék-à òmú-kázéndú ònyàmà 16-9house 16.HAB-cook-FV 1-woman 9meat Lit.: 'At home cooks a/the woman meat' (Herero)

Table 1 gives an overview over the thematic restrictions (adapted from Demuth and Mmusi [1997: 14] and Marten [2006: 116]).³

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Table 1. Variation in the matic restrictions.

Verb type		Chichewa	Kichaga	Chishona	Setswana	Sesotho	Otjiherero
Unaccusative	Active	Ok	Ok	Ok	Ok	Ok	Ok
	Passive	*	*	Ok	Ok	Ok	Ok
Unergative	Active	*	*	*	Ok	Ok	Ok
	Passive	*	*	Ok	Ok	Ok	Ok
Transitive	Active	*	*	*	*	*	Ok
	Passive	Ok	Ok	Ok	Ok	Ok	Ok
Ditransitive	Active	*	*	*	*	*	*
	Passive	*	*	Ok	Ok	Ok	Ok

The variation in thematic restrictions is to date ill-understood. In the next subsections we will investigate other parameters of variation and try to relate them to the thematic restrictions.

1.3.2. Variation in locative morphology

Bantu languages also differ from each other with respect to the expression of locative classes, their categorial status and with respect to the interpretation of the verbal locative agreement marker.

As for the nominal locative morphology, the available literature suggests that languages have either all three nominal prefixes or have completely lost them. In the latter case, locative expressions are then formed by means of special prefixes, suffixes or prepositions; in Northern Sotho, for instance, mo-tse 'village' becomes mo-tse-ng 'in the village' (Zerbian 2006: 369). Concerning the verbal morphology, there are languages with three concord markers, e.g. Chichewa, some have two (Kichaga) and others have retained only one of the three locative agreement prefixes. Lozi (Marten et al. 2007: 277ff.) is such a language. Note that although nouns can appear with three different locative classes, the locative class 17 marker ku- appears on the verb in all cases:

- Fa-tafule ku-ins-i (10)a) li-tapi. 16-table 17-be/sit-TNS 5-fish 'On the table there is a/the fish' (Lozi)
 - Mwa-ndu ne-ku-ken-i 6-thieves 18-house TNS-17-enter-TNS 'Into the house entered the thieves' (Lozi)
 - c) Kwa-kota ku-opel-a li-njoko. 17-tree 17-sing-fv 10-monkeys 'The monkeys are singing at the tree' (Lozi)

This means that there is no proper subject-verb locative agreement in such languages.

The difference in the inventory of verbal markers correlates with a difference in interpretation (Demuth and Mmusi 1997: 15): In languages like Chichewa with more than one agreement marker, the locative subject marker is interpreted pronominally in the absence of an overt locative (i.e. under pro-drop), i.e. it refers to a previously mentioned location, an instance of anaphoric agreement (Bresnan and Mchombo 1987), cf. Bresnan and Kanerva (1989: 11):

- (11) a) Ku-na-bwér-á a-lěndo.
 17-RECPST-come-IND 2-visitor
 'There (in/to some place) came visitors.' (Chichewa)
 - b) Mw-a-khal-á mí-kângo.
 18-PRF-remain-IND 4-lion
 'There (inside some place) have remained lions.' (Chichewa)

Furthermore, Chichewa does not use locative markers in impersonal contexts, instead it uses class 10 (Bresnan and Kanerva 1989: 10):

(12) Zi-ku-gánízir-idw-á kútí á-tsíbwéni á-ngá ndi a-fiti.

10-prg-think-pass-ind comp 2-uncle 2-my cop 2-witch

'It is thought that my uncle is a practitioner of witchcraft.' (Chichewa)

In languages with only one locative agreement marker, the locative prefix does not have any locative reference under pro-drop:

(13) Hó-fihl-íl-é ntaté. 17-arrive-PRF-M father 'There arrived father.'

(Sesotho; Demuth 1990: 242)

Here the locative reading is lost, only a presentational focus reading obtains. Additionally, the locative marker is used for impersonal passives and impersonal contexts as in (14), cf. Demuth (1990: 242):

(14) Hó-náhan-w-a hore malómé ó-bohlále. 17-believe-PASS-M COMP 1uncle 1COP-wise 'It is suspected that my uncle is wise.' (Sesotho)

Table 2 provides an overview over inventory, categorial status and interpretation of locative markers (adapted from Demuth and Mmusi [1997: 17], Marten [2006: 116] and extended with information on Swahili, Zulu [Buell 2007] and siSwati [Marten 2010]).

This table shows that there is no relationship between the distinctions in the nominal and the verbal paradigm. Swahili has no nominal markers but still has three verbal markers (Krifka 1995: 1408). Conversely, Lozi and Setswana have three nominal markers but only one verbal marker.⁴

Nor is there a relationship between the thematic restrictions and the locative morphology: Demuth and Mmusi (1997) tentatively entertain, but eventually reject the idea that fewer distinctions in the verbal agreement paradigm correlate with greater thematic flexibility; given Herero (Marten 2006), with hardly any thematic restrictions but robust locative morphology, this conclusion seems to be correct.

The status categorial status of locatives, however, has a certain influence on verbal agreement: Though Bantu locative expressions are translated by means of prepositional phrases in English, they often have nominal properties, as e.g. in Chichewa: In addition to subject (and object) verb agreement one also finds locative concord within locative phrases, i.e. determiners and adjectives can bear locative agreement; in (15), the possessive determiner agrees with the locative class and not with the inherent class of the noun (even though this is optionally possible; Bresnan and Mchombo 1995: 195ff.):

Table 2. Variation in locative morphology.

Language	Category of locatives	Nominal morphology	Verbal morphology	Interpretation of the subject marker
Chichewa	N	16/17/18	16/17/18	Locative
Swahili	N	_	16/17/18	Locative?
			17	Expletive
Kichaga	N	_	17/18	Locative
Chishona	N	16/17/18	16/17/18	Locative
			17	Expletive
Setswana	?	16/17/18	17	Expletive
Sesotho	N (?)	_	17	Expletive
siSwati/Zulu	Р	_	17	Expletive
Otjiherero	N (?)	16/17/18	16/17/18	Locative
•			16	Expletive

(15) ku-mu-dzi kw-âthu 18-3-village 18-our 'at our village'

(Chichewa)

Concord is generally taken to be a property of noun phrases while prepositions in languages like English do not trigger agreement on dependents within the PP they head. Data as in (15) are therefore usually interpreted as showing that the locative agreement marker is nominal in nature. And since the possessive determiner, the head of the DP, bears locative concord, the locative marker is analyzed as the head of a nominal locative phrase which the determiner takes as its complement (while the lexical noun heads another NP within the locative NP); see Bresnan and Mchombo (1995) for detailed discussion.

Swahili is an interesting case because it has no nominal locative morphology but can trigger locative agreement on pronouns and adjectives, cf. Marten (2010: ex. 36).

In languages like Zulu (or siSwati, Marten 2010), however, locatives are best analyzed as prepositional. They neither trigger agreement on the verb nor on other constituents of the DP. The following example shows that agreement is with the inherent class of the noun (Leston Buell, p.c.):

There thus seems to be an implicational relationship: If locatives are prepositional there is no verbal locative agreement but only one verbal marker. It is unclear though, whether the reverse holds as well, i.e. whether lack of distinctions in the verbal paradigm implies prepositional status. The facts are somewhat inconclusive: For Setswana, Demuth and Mmusi (1997: 4) argue that NP-internal dependents can take locative agreement, which would argue for the nominal status of locatives. Creissels (2009: 4), however, disputes their interpretation of the facts (his fn. 6 could suggest that the disagreement partly also arises because of dialectal differences). In Sesotho, on the other hand, there is some evidence for NP-internal locative concord, arguing for the nominality of locative markers,

cf. Machobane (1995: 118f.). The Sesotho facts then suggest that lack of distinctions in the verbal paradigm does not imply prepositional status of the locative markers and conversely that nouniness of locatives does not imply distinctions in the verbal paradigm.

1.3.3. Inversion without a reversal of grammatical functions?

While the locative-as-subject analysis is largely uncontested for languages like Chichewa where locatives agree with the verb, a number of researchers have argued for a different analysis for languages like Sesotho which only have expletive/impersonal agreement: It is argued that the construction is essentially impersonal like (13) but with a topicalized locative (cf., e.g. Demuth 1990; Zerbian 2006; Creissels 2009). This essentially treats agreement as the major subject property, which is not a priori obvious (cf. below). It is therefore important to look at syntactic subject diagnostics. Machobane (1995: 121) argues for the subject status of the preverbal locative based on the following raising to subject example:

(17) Thab-eng hó-bonáhal-a ho-kúbélla haholo.
9mountain-LOC 17-seem-IND INF-smoke more
'In the mountain it seems to be smoking more.'

(Sesotho)

However, as argued in Buell (2007: 116) and Creissels (2009: 7) such sentences could also be analyzed as involving topicalization of the locative plus raising of the expletive, as in the following English example where *there* has raised:

(18) [In my soup] there appear __ to be flies.

Zerbian (2006: 371) further shows that in Northern Sotho what looks like raising to subject is perhaps better analyzed as a hanging topic construction.

Another subject test involves relativization strategies that are restricted to subjects. While Buell (2007: 117) shows that preverbal locatives do not pattern with subjects in Zulu, there is some indication in Setswana (Demuth and Mmusi 1997: 7f.) and Northern Sotho (Zerbian 2007: 372) that they do.

These are the subject diagnostics that are used most often in Bantu linguistics. Several other diagnostics can be found in the literature (such as controlling the subject of non-finite attributes or raising to object), but they are often language-specific in the sense that some languages lack the relevant construction altogether. Other diagnostics arguably do not test for subjecthood, but rather for topicality (the impossibility to question subjects in situ) or agentivity (the control of reflexives, cf. Machobane 1995: 122; Creissels 2009: 10; Zerbian 2007: 373). These are therefore irrelevant.

Perhaps the strongest argument against the subjecthood of preverbal locatives comes from data in siSwati (Marten 2010: ex. 43) and Zulu (Buell 2007: 113) where – unlike with true subjects – there is a preference to use a resumptive (locative) pronoun in cases of putative LI:

(19) Ku-le-ti-ndlu ku-hlala (khona) ba-ntfu la-ba-dzala.

LOC-DEM-10-houses 17-stay there 2-people REL-2-old

'In these houses (there) live elderly people.' (siSwati)

Since resumptives are systematically used in dislocation structures in these languages, this clearly argues in favor of a topicalization analysis.

Generally, however, the result is somewhat inconclusive: While it is correct that several of the subject tests do not unambiguously argue in favor of the subject status of the locatives, there is also little evidence showing that they must be analyzed as topics (perhaps apart from the resumptive pronoun facts). This leaves us with agreement as the clearest subject diagnostic. However, as the English sentence in (18) shows (and as is familiar from the discussion on dative or ergative subjects, cf. Palmer 1994; Bickel forthcoming), agreement, and more generally, coding properties, are often dissociated from other, behavioral subject properties; i.e. it is not always the constituent encoded as subject (e.g. by means of agreement or case) that behaves like a subject in grammatical operations/constructions such as raising etc., but some other constituent within the same clause. This has to do with the fact that agreement is particularly sensitive to factors such as morphological case or referential properties of the agreement controllers. The fact that the raised there does not agree with the verb has not been taken to argue against there having (certain) subject properties. It is therefore not justified to a priori deny the subject status of non-agreeing preverbal locatives as in (17). Rather, we simply need better syntactic tests to distinguish between topics and subjects.

In the next subsection we will discuss an alternative approach to agreement in Bantu that may further weaken the importance of agreement in diagnosing subjecthood.

1.3.4. Other kinds of inversion and the relevance of topic prominence

There are Bantu languages where in addition to locative subject prefixes there occur locative suffixes/clitics on the verb. Interestingly, next to regular LI they also feature an inversion construction where the locational noun is fronted without the locative prefix and the verb agrees with the inherent class of that noun. Importantly, in both cases, there is a locative suffix agreeing with the locative. Additionally, the verb is passivized in the inverted structures. Here are examples from Luyia (Dalgish 1976: 140, 145):

- (20)a) aBa-xasi Ba-tsiits-aanga ha-mu-chela 2-go-TNS/ASP 16-3-river 'The women go near the river.' (Luyia)
 - Ha-mu-chela ha-tsii-Buungwa-ho neende aBa-xasi 16-go-pass.tns/asp-loc 16-3-river by 2-women lit.: 'Near the river is gone by the women.' (Luyia)
 - Omu-chela ku-tsii-Buungwa-ho neende aBa-xasi 3-go-pass.tns/asp-loc 2-women lit.: 'The river is gone near by the women.' (Luyia)

Similar data can be found in Trithart (1979: 15ff.); Den Dikken (2006: 105f.) contains 3 some recent discussion.⁵

A superficially similar inversion construction is found in some of the languages of the previous section that may lack LI in the narrow sense: Here a locational noun can also be fronted without a locative prefix and trigger non-locative agreement on the verb; unlike in Luyia, however, there is no locative suffix on the verb. Such a construction has been described for siSwati (Marten 2010: ex. 44/45), Zulu (Buell 2007) and Setswana (Creissels 2009: 1, fn. 2).

(21) a) Le-si-kolwe si-to-fundza ba-ntfa-ba-in-khosi.

DEM-7-school 7-FUT-read 2-children-poss-9-king
'The king's children will study at this school.'

(siSwati)

b) Le-ti tin-dlu ti-hlala ba-ntfu la-ba-dzala.

DEM-10 10-houses 10-stay 2-people REL-2-old
'Elderly people live in these houses.'

(siSwati)

Buell (2007: 119), who refers to this construction as 'semantic LI', suggests that languages may have either proper, in his terms, 'formal' LI or semantic LI, but not both. Data on Swahili in Shepardson (1982: 114) and Bearth (2003: 114) suggest, however, that both constructions can co-exist in one language.

Whatever the distribution of semantic LI, there is an obvious similarity with what is called 'quasi-passive' or 'subject/object-(S/O-)reversal', a construction involving reversal of theme and agent (see Bearth 2003: 140 for references). Here is an example from Kinyarwanda (Kimenyi 1980: 141):⁶

(22) a) Umu-huûngu a-ra-som-a igi-tabo. 1-boy 1-prs-read-asp 7-book 'The boy is reading the book.'

(Kinyarwanda)

b) Igi-tabo cyi-ra-som-a umu-huûngu. 7-book 7-prs-read-asp 1-boy 'The book, the boy is reading.'

(Kinyarwanda)

Importantly, the inverted b-sentence is still transitive: There is no passive morphology and the expression of the agent is obligatory. Furthermore, the construction serves to focus the agent. As with LI there have been analyses in terms of a reversal of grammatical functions (Bokamba 1979; Ndayiragije 1999, etc.). At the same time, it has been 4 noted (Kimenyi 1980: 145f.; Morimoto 2000, 2008) that there is not much evidence for the subject status of the preverbal theme apart from agreement. This then opens up a new possibility for the analysis of such inversions: an analysis in terms of topic agreement (cf. Bearth 2003; Krifka 1995; Morimoto 2008). It is well known that verbal agreement in Bantu goes back to anaphoric agreement (Bresnan and Mchombo 1987); Bantu languages differ in the extent to which the original anaphoric pronouns have been grammaticalized. While the subject marker in Chichewa can be used as a pure agreement marker (it is compatible with non-referential NPs), the subject marker in Dzamba always seems to function anaphorically: For instance, subjects cannot be questioned in situ, suggesting that they must be topical (Bresnan and Mchombo 1987: 778). These are clear signs of topic prominence, and since Dzamba also has S/O reversal (Bokamba 1979), it is tempting to analyze S/O-reversal in terms of topic agreement (cf. also Baker 2003). The possibility of topic agreement should also be considered as an alternative for the analysis of (formal) LI because it could help accommodate cases where agreement seems to be controlled by bona fide adjuncts. Krifka (1995: 1408), for instance, notes that there can be locative agreement with (non-relativized) preverbal temporal adjuncts in Swahili. Since subject agreement seems unlikely in this case, topic agreement may be a viable analytical alternative.

The variation in thematic restrictions noted above still remains unaccounted for. What they certainly show is that they cannot be derived from the discourse function of LI as claimed in Bresnan (1994). While presentational focus will naturally favor unaccusatives, there is no a priori reason why unergatives or even transitives should not be used for this function. One therefore has to look for grammatical factors governing the variation. It has been shown that it is neither related to the inventory of verbal locative agreement markers nor to their interpretation. The categorial status of locatives also seems orthogonal to the thematic restrictions.

Instead we would like to offer the following (admittedly somewhat speculative) hypothesis: weak thematic restrictions result from the absence of LI in the narrow sense. Languages where there is no compelling evidence for the subject status of preverbal locatives (Sesotho, Setswana, Zulu, cf. Section 1.3.3) allow LI with unergatives. The locatives appearing in such constructions should probably not be classified as arguments of these verbs: one often finds LI with verbs like 'jump', 'sing', 'weave', 'plough' in the literature (e.g. Demuth and Mmusi 1997: 13); it is rather improbable that the location where these actions take place is part of the argument structure of the verb. Since accessibility to subjecthood is usually thematically highly restricted and normally rules out adjuncts (unless promotional devices such as applicative and ensuing passive are employed), there are independent reasons to doubt that LI involves a reversal of grammatical functions in this case. Instead, it is much more plausible that LI with unergatives involves topicalization where such restrictions normally do not hold. When extended to all types of verbs, this would then not only account for the absent subject properties of preverbal locatives, but also for the weak thematic restrictions observed for LI in these languages.

A similar solution may even be possible for languages like Herero where preverbal locatives trigger agreement on the verb if it could be shown that agreement in this language is actually topic agreement. Given that many of the locatives appearing with unergative and transitive verbs arguably should not be classified as arguments, cf. (9), positing a reversal of grammatical functions appears to be problematic. A topicalization analysis (in this case accompanied by topic agreement), on the other hand, would help accommodate both adjuncts as well as the weak thematic restrictions.

If these hypotheses are on the right track, we would end up with two basic types of LI within Bantu, only one of which would (due to the reversal of grammatical functions) instantiate LI in the narrow sense, and only this type would be subject to strong thematic restrictions. The other type would involve locative topicalization plus a postverbal subject and could sometimes be accompanied with topic agreement. At this point, there is not enough information available to test these hypotheses, but they represent important avenues for further research.8

2. LI in Other Languages

2.1. INTRODUCTION

Before discussing LI in other languages we need to be more explicit about the definition of LI. Implicit in the discussion so far has been that LI in the narrow sense involves a reversal of grammatical functions. This is not a priori necessary, but once this criterion is dropped, any linear reversal between locative, verb and subject may count as LI as, e.g. the following German example:

(23) In die Stadt kamen zwei Fremde. into the city came two strangers 'Into the city came two strangers.'

(Standard German)

As in other verb-second languages, the position before the finite verb must be filled in main clauses, but the position can host phrases of any relation including adjuncts. If such cases were subsumed under LI, the phenomenon would become almost ubiquitous and the term would be rendered meaningless. It is therefore more productive to adhere to a narrow definition. We thereby exclude constructions in languages like Spanish for which the term LI has been used. Preposed locatives can occupy the preverbal position in these languages but do not display any subject properties (Fernández-Soriano 1999: 112f.). For more discussion of Spanish, cf. Zubizarreta (1998: 99–118).

Another important part of the definition is that LI constitutes a marked alignment between semantic roles and grammatical functions: Locative subjects are marked, they are not the highest argument of a predicate and therefore acquire subjecthood not by default but indirectly, i.e. by some form of promotion (however, this is implemented theoretically). This means that we are only dealing with LI if there is an alternative non-inverted counterpart where the locative occupies a more peripheral position.

Whether unmarked locative subjects exist at all is unclear. Fernández-Soriano (1999: 102f.) argues that locatives of certain impersonal verbs in Spanish are of that type:

(24) a) Aquí falta café. here misses coffee 'Coffee is missing here.'

(Spanish)

 En Barcelona ha ocurrido un accidente. in Barcelona has happened an accident 'An accident has happened in Barcelona.'

(Spanish)

6

(Italian)

She shows that they occur in neutral contexts, have certain subject properties such as raising to subject and differ from preposed locatives in what looks like LI. The facts are contested, though, cf. Gutiérrez-Bravo (2006).

Another terminological decision that needs to be made is whether 'locative' in LI refers to the semantic role or to the encoding of a constituent. In the literature the first option has been adopted, but there may be reasons to employ a more liberal definition. Landau (2009) has recently argued that experiencer constructions should be analyzed as (abstract) instances of LI. There is a conceptual similarity in that experiencers can be understood as mental locations; furthermore, in many languages, experiencers are encoded by means of oblique, sometimes locative cases, or by means of locative prepositions and allow two linearizations, cf., e.g. Italian (Belletti and Rizzi 1988: 334):

- (25) a) La musica è sempre piaciuta a Gianni. the music is always pleased to John 'John has always liked music.'
 - b) A Gianni è sempre piaciuta la musica. to John is always pleased the music (Italian)

Landau shows that the semantic and formal similarities extend to syntactic similarities in that oblique experiencers often display certain subject properties. Similar things can be said about possessives (cf. Freeze 2001). For reasons of space, we will disregard experiencer and possessive constructions here.

Before turning to specific languages or language groups, we need to briefly look at existential constructions which can be analyzed as instances of LI in many languages, such as the following pair from Russian (Freeze 2001: 942, 945):

(26)Kniga byla stole. a) na book COP on table.LOC 'The book was on the table.'

(Russian)

Na stole b) byla kniga. table.LOC COP book 'There was a book on the table.'

(Russian)

Next to the existential construction as in (26b), many languages have a predicative locative construction as in (26a). As with LI, the two sentences have roughly the same propositional content but differ in the information status of the theme: While it is indefinite in the existential construction it is normally definite in the predicative locative. Furthermore, this is a reversal without any voice morphology. Evidence for some subject properties can be found in Bailyn (2004). Given the extensive literature on the topic existential constructions of the type in (26) will not be discussed any further here. In the next section we will very briefly address the relationship between LI and existential constructions that unlike (26) involve expletives like, e.g. English there.

We will now turn to individual languages or language groups for which the term LI has been employed in the literature. Whether they really show LI in the narrow sense with a reversal of grammatical functions is not fully clear because locatives do not trigger subject-verb agreement and - as in Bantu - the other subject diagnostics are sometimes equivocal. This means that the evidence for proper LI will be rather limited.

2.2. ENGLISH

The following pair illustrates LI in English:

- A baby carriage rolled down the hill. (27)
 - Down the hill rolled a baby carriage.

As in Bantu, the inverted structure is associated with presentational focus. The preposed locative also seems to possess certain subject properties: For instance, it can undergo raising to subject and does not require do-support in questions (Bresnan 1994: 97, 102):

- b) On that hill appears to be located a cathedral.
 - On which wall {hung/*did hang} a portrait of the artist?

Furthermore, LI also seems to be an unaccusative diagnostic, i.e. it has been claimed to be subject to the same thematic restrictions as Chichewa (Bresnan 1994: 77f.):

- (29) a) Among the guests was sitting my friend Rose. unaccusative
 - b) *Among the guests was knitting my friend Rose. unergative
 - c) *Among the guests of honor seated my mother active transitive my friend Rose.
 - d) Among the guests of honor was seated my mother. passivized transitive

Consequently, English LI has been analyzed as involving a reversal of grammatical functions (Bresnan 1994; Collins 1997), on one particularly popular account (Broekhuis 2008; Den Dikken 2006; Hoekstra and Mulder 1990), LI is subsumed under predicate inversion, as in:

(30) The best candidate is Brian.

Den Dikken (2006: 81)

In addition to its subject properties the fronted locatives also display topic properties. Among other things (cf. Bresnan 1994), they have to be referential (Schachter 1992: 107f.) and – like ordinary topics – they are barred from non-finite contexts (Bresnan 1994: 108):

- (31) a) A child was found somewhere. b) *Somewhere was found a child.
- (32) a) *I expect on this wall to be hung a portrait of our founder. LI
 - b) *I expect for John, you not to like ___. topicalization

It is because of these facts that accounts have been put forward that attempt to capture this dual behavior: On some accounts (e.g. Den Dikken and Næss 1993) it is proposed that after becoming the subject, the locatives additionally undergo topicalization. Similarly, Den Dikken (2006) proposes that locatives are base-generated topics which are related to a silent locative proform that has become the subject via LI. The locative as subject analysis has, however, not gone unchallenged. Among other things, this has to do with the fact that some of the properties that cast doubt on the locative-as-subject-analysis in Bantu are also found in English: First, Levin and Rappaport Hovav (1995: 224ff., 251ff.) have shown that LI also occurs with unergative verbs:

- (33) a) ... and in this lacey leafage fluttered a number of grey birds with black and white stripes and long tails (Z. Grey, *Riders of the Purple Sage*, 62)
 - b) On the folds of his spotless white clothing, above his left breast, glittered an enormous jewel. (N. Lofts, *Silver Nutmeg*, 460)

Such locatives are usually not classified as arguments, a fact that seems more general in that 'locative' inversion also seems to occur with adjuncts of other types (but recall fn. 8):

Yesterday came a new idea: compensation (34)a) for terrorism suspects who turn out to have been locked up without good cause. The Guardian, Thursday June 12, 2008, Editorial

With talent comes responsibility. b)

(clown in Woody Allen's Shadows and Fog)

This may suggest that the fronted elements are topics but not subjects. There are accounts that can accommodate these facts to some extent (even though not all of them were not developed before this background). Coopmans (1989) and Postal (2004) reanalyze the fronted locatives as topics and the subject position is taken to be empty (or occupied by the silent equivalent of there), essentially the alternative that was proposed above for languages like Sesotho (cf. Section 1.3.3):10

[Down the hill] expl rolled a baby-carriage.

Alternatively, LI has been analyzed as involving topicalization of the locative plus subject postposing (Culicover and Levine 2001; Rizzi and Shlonsky 2006; we simplify things here for expository purposes):

[Down the hill] __ rolled a baby-carriage.

Since a full discussion of the pros and cons of these various approaches is beyond the scope of this overview article, we unfortunately have to leave it at this very superficial description. The interested reader is referred to the references mentioned in this section for the details. Before closing, though, we would like to mention one alternative interpretation of the facts that suggests itself given the history of English: Since English was once a verb-second language with a flexible preverbal position, LI, together with a sizeable number of more idiosyncratic inversions (Green 1982), could be viewed as a constructional residue of a previously fully productive inversion mechanism. This may be reflected by the fact that (at least certain instances of) LI has a stylistic/formal/literary flavor to it (even though things are more complex, cf. Green 1982). The proposal in Culicover and Rochemont (1990) actually contains ingredients of a verb-second analysis: it involves topicalization plus verb-subject inversion (even though the details differ and reference to older stages of English was probably not intended).

In summary then, the evidence for LI in English is equivocal. The situation may in fact be similar to that found in the Bantu languages with certain cases of LI indeed involving a reversal of grammatical functions while others may be better analyzed as instances of locative topicalization.

2.3. CHINESE

Consider the following pair of sentences from Mandarin Chinese (Her 2006: 68):

(37) a) Amei tai-shang. zuo zai stage-on Amei sit at 'Amei is sitting on the stage.'

(Mandarin Chinese)

Tai-shang b) zuo-zhe Amei. stage-on sit-ASP Amei

(Mandarin Chinese)

As in Bantu and English, the order of locative and theme can be reversed. Evidence for the subject status of the preverbal locative comes from two facts: First, preverbal locatives do not require the preposition zai which is necessary when noun phrases occur in oblique positions, i.e. neither as subject nor as direct object as in (37a). This is related to the fact that so-called postpositions like -shang are in fact nominal localizers that turn a common noun into a place noun (Li 1990: 4f.). Chinese is thus similar to Bantu in this respect, at least what concerns the occurrence of locative expressions in subject and object position (Chinese differs from Bantu in that it requires a preposition in oblique positions). Secondly, the locative can undergo raising to subject (Her 2006: 68):

zuo-le Tai-shang kanqilai henduo sit-ASP stage-on appear person many 'On the stage appear to be sitting many people.'

(Mandarin Chinese)

Pan (1996) argues that the inverted structure in Chinese also has the function of presentational focus and largely occurs with the same types of verbs as in English, i.e. unaccusative verbs. There is one problematic case, however: It seems that certain transitive verbs also occur with LI; importantly, though, the agent may not be expressed, neither as an unmarked NP nor as a complement of the passive marker bei (Zhang 2008: 896f.):

{*Zhangsan/*bei Zhangsan} xie (39)Zhi shang by Z. write ASP one CLASS character (Mandarin Chinese) 'On the paper was written a character.'

Pan argues that the aspectual particle zhe deletes the agent role to make the construction compatible with presentational focus. In other words, constructions like (39) must be analyzed as intransitive; the fact that the so-called passive (with bei) is also ruled out is arguably due to the fact that the Chinese passive does not involve detransitivization, cf. Li (1990: 154ff.). It seems therefore that LI in Chinese functions very much like LI in English or Chichewa.

The situation is more complex, though, and a few aspects should be pointed out to do justice to the facts: LI often occurs with the particle zhe, but sometimes also with le (Pan 1996). Zhang (2008) shows that constructions with le have partly different syntactic properties (agents may be expressed, the postverbal NP can be omitted) and serve a different information structural function: they are used to comment on the initial locative. This may suggest (as was pointed out by an anonymous reviewer) that LI with le is perhaps better analyzed as involving topicalization. Additionally, Lin (2008: 71) has pointed out that not all instances of LI are reversible, that is, with some verb types the locative-verbsubject structure does not have a grammatical subject-verb-locative counterpart. This could suggest that the locatives are the most prominent arguments of such verbs (or, as proposed in Zhang 2008: 899, fn. 2, are base-generated sentence topic). Finally, the subject position can sometimes also be occupied by locative or temporal adverbials (Lin 2008: 75, 77; Li 1990: 150, fn. 12); even though these can also undergo raising to subject (Li 1990: 141), such facts raise serious questions about the subjecthood of preverbal locatives.

In conclusion, then, the evidence for a reversal of grammatical functions in Chinese is limited, and there remain several open questions for further research.¹¹

(Tagalog)

2.4. LI IN PHILIPPINE-TYPE LANGUAGES?

Before concluding I would like to briefly discuss a language type to which the term LI is usually not applied, i.e. Philippine-type languages (cf. Palmer 1994: 201-7). These languages have a special voice system that registers on the verb which constituent functions as the subject (or proximative, cf. Bickel forthcoming) of the clause. This can be the agent (agent voice), the patient (objective voice), the recipient, but also an instrument or a locative (glossed as dative voice). Importantly, the different voices do not involve detransitivization or demotion of the agent/patient and therefore cannot be equated with passive or antipassive. In Tagalog, the subject is marked with the particle ang (Kroeger 1993: 13f.):

- (40)a) B-um-ili ang=lalake ng=isda sa=tindahan. PERF.AV.buv DAT=store NOM=man GEN=fish 'The man bought fish at the store.'
 - B-in-ili-Ø ng=lalake ang=isda sa=tindahan. PERF-buy-ov NOM=fish GEN=man DAT=store (Tagalog)
 - B-in-ilh-an ng=lalake ng=isda ang=tindahan. PERF-buy-DV GEN=fish (Tagalog) GEN=man NOM=store

In the dative (=locative) voice (40c), the locative phrase is marked with ang and displays subject properties such as relativizability. It is not fully clear what governs the choice of the different voices; ang-marked constituents are always definite, but as Kroeger (1993) shows, they cannot easily be equated with topics. There is thus a certain similarity to the information-structural distribution in Bantu languages (especially considering the cases of S/O-reversal), but the general differences between the two language types are also obvious. Furthermore, there do not seem to be any thematic restrictions in Tagalog, i.e. locatives of any verb can in principle become the subject. Still, since languages of this type regularly allow non-core constituents to become subjects without an intermediate step like applicative that promotes them to objects, there is a certain common core.

3. Conclusion

As mentioned at the very beginning, this contribution is not a typology of LI but rather an overview over the available literature on the topic. It is quite surprising that one finds solid evidence for the existence of LI in only three (groups of) languages all of which are genetically unrelated. Additionally, the evidence for a reversal of grammatical relations, which is at the heart of LI, is less than compelling in some of them. This is surely related to the difficulty of diagnosing subjecthood. Many diagnostics have turned out to be somewhat inconclusive and even the agreement between locative and verb in some Bantu languages may not (always) be indicative of grammatical function. The evidence for LI then suddenly becomes rather scarce. But why should this be so?

The following hypothesis may serve as a starting point: Inverting a locative with a subject fulfills an important discourse function that is probably universally available. From a functional point of view, however, there does not seem to be any good reason why this would have to be accompanied by a reversal of grammatical functions. What seems to have happened in languages with LI in the narrow sense is that due to their strong configurational nature with rather fixed word order constraints, locative and subject were forced into fixed slots and thus into the strait-jacket of grammatical relations associated with these positions. For further research on LI it thus seems to be most promising to investigate strongly configurational languages, especially those of discourse-configurational origin. 12

Another important factor may be the category of locatives. Evidence for subjecthood in Bantu is clearest in languages with nominal locatives; locatives in Chinese are also nominal. Since designated subject positions are often argued to be reserved for NPs (Bresnan 1994), LI proper would then be expected to exist only in configurational languages that have nominal locatives. If it turns out that the combination of these two properties is typologically rare, we might have an explanation for why LI seems to be so infrequent.

Short Biography

Martin Salzmann is a theoretical linguist with a strong interest in typological and empirical issues. He has done work on grammatical relations with a particular emphasis on Bantu. His thesis Resumptive Prolepsis (2006) is on the syntax of relativization and relativization-like structures in German and its varieties. More recently, his research focuses on microvariation with a particular emphasis on the structure of Alemannic varieties spoken in Switzerland. Major topics of interest include the verbal complex, resumptive pronouns, motion verb constructions and the structure of coordination.

Martin holds an MA in General, German and African Linguistics from the University of Zurich and a PhD in Linguistics from the University of Leiden. After holding a lecturer position at the University of Zurich and a research position at the University of Konstanz he is now back in Zurich on a research position.

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Notes

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- ¹ The transcription always follows the sources, the glosses have been slightly adapted in some cases to increase consistency. (') denotes a high, (^) a falling and (□) a rising tone. The following abbreviations are used for grammatical categories:

AV	actor voice	OBJ	object marker
ASP	aspect	POSS	possessive marker
CLASS	classifier	M	mood
COMP	complementizer	NOM	nominative
COP	copula	OV	objective voice
DAT	dative	PASS	passive
DEM	demonstrative	PERF	perfective
DV	dative voice	PRF	present perfect
FUT	future	PRG	progressive
GEN	genitive	PRS	present
HAB	habitual	PST	past
IND	indicative	RECPST	recent past
INF	infinitive marker	REL	relative marker
LOC	locative marker/locative case (Russian)	TNS	tense

² As an anonymous reviewer has pointed out to me, LI sometimes does occur with derivational morphology, namely applicative morphology, cf. Marten (2006: 117ff.), Buell (2007). However, at least in Herero, it does not seem to be the case that it is the applicative that makes LI possible. Rather, the applicative is an independent possibility which is found in LI as well as in the non-inverted counterpart. In Zulu, on the other hand, the applicative seems to occur to make LI possible with certain types of verbs.

³ As one of the anonymous reviewers reminded me, there is an important line of research on LI, initiated by Hoekstra and Mulder (1990) and most prominently propagated in Den Dikken (2006), according to which the themes and locatives that occur in LI are not arguments of the verb but rather form a so-called small clause, a predication structure where the locative functions as the predicate and the theme as the subject. LI then represents a case of predicate inversion. This approach directly derives the unaccusativity restriction on LI as it is, e.g. found in Chichewa, but at least at first blush it seems incompatible with languages where LI is possible with unergative and transitive verbs. Note incidentally that the small-clause analysis of LI is mainly found in the literature on Germanic while in the literature on Bantu the locatives are usually treated as arguments of the verb rather than as predicates.

⁴ The Setswana data are contested: Creissels (2009) analyzes the nominal locative markers as emerging prepositions.

⁵ Similar constructions are found in Diercks (forthcoming). In his analysis of Lubukusu LI, he addresses an inversion construction similar to (19b), which unlike in Luyia does not involve a passivized verb. Additionally, he describes a further a variant of (19b) where the verb does not agree with the fronted locative but with the postverbal logical/thematic subject.

⁶ There does not seem to be a correlation between the availability of semantic LI and S/O-reversal, though: Zulu has semantic LI but not S/O-reversal, according to Buell (2005).

As one of the reviewers reminded me, one has to be careful with the classification of verbs types based on English translations. Instead the argument structure of a particular verb should ideally be determined by independent diagnostics. Interestingly, there is rather little discussion of this in the literature on Bantu. In the literature on LI in Germanic (Hoekstra and Mulder 1990; Levin and Rappaport Hovav 1995), however, it has been widely 16 documented that unergatives sometimes shift to unaccusatives in the context of locative PPs and therefore could be reanalyzed as instantiating a small-clause/predication structure. Even notional transitives have to be handled with care. For instance, verbs like 'follow' may display unaccusative behavior in some languages, e.g. Dutch

Even though an unaccusative analysis may prove superior for certain - putative - unergatives/transitives, I do not believe that it can be applied to all instances of LI, neither in Bantu nor in English, cf. Section 2.2 below.

⁸ Importantly, a topicalization account still leaves unexplained the differences in thematic restrictions between, e.g. Setswana (only unergatives) and Herero (unergatives and transitives). One possibility to capture these differences may be language-specific restrictions on the types and number of immediately postverbal arguments.

There are examples with passivized transitives from Chichewa (Bresnan and Kanerva 1989: 18, ex. 54b-d) where the locatives seem implausible candidates for arguments. This might suggest that topic agreement could even be a possibility in Chichewa; however, once such a possibility is acknowledged, the thematic restrictions observed elsewhere become mysterious. Such facts clearly show that the thematic restrictions remain a very important pièce de résistance for all future work on LI.

⁹ Between extreme cases such as Chichewa and German there may also be intermediate cases like Russian (cf. Bailyn 2004): it has very flexible word order and thus allows inversion with a very large class of elements, resulting in X-V-S order; but unlike in German the inversion construction can be distinguished from topicalization and the fronted elements possess certain properties of subjects such as the ability to bind reflexives. But since what is referred to as LI in Russian is just an instantiation of a much more general process, we will also disregard it in what

¹⁰ There has been quite some debate about the relationship between LI and existential/presentational there-constructions. For some discussion, see Bresnan (1994: 98ff.), who lists a large number of asymmetries that argue against

¹¹ For reasons of space we have limited the discussion to Mandarin Chinese. But see Mok (1992) for a discussion of LI in Cantonese.

As pointed out by an anonymous reviewer, Zwart (1992) argues for the existence of LI in Dutch non-root contexts based on the distribution of the expletive er 'there'. This shows that LI may also be present in languages with more flexible word order. Crucially, though, Zwart is concerned with the middle field, a section of the Dutch clause which allows far less word order flexibility than, e.g. its German counterpart, especially what concerns the position of the subject. Consequently, Dutch may thus still conform to the generalization put forward in the text.

An interesting case and potential counterexample in this respect may be Korean, for which I have only one isolated reference (Yim 2005). Since it has case-stacking, i.e. since it can attach nominative to locative case, locatives may occupy the subject position. On the other hand, Korean has relatively free word order.

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Author Query Form

Journal: LNC3

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Dear Author,

During the copy-editing of your paper, the following queries arose. Please respond to these by marking up your proofs with the necessary changes/additions. Please write your answers on the query sheet if there is insufficient space on the page proofs. Please write clearly and follow the conventions shown on the attached corrections sheet. If returning the proof by fax do not write too close to the paper's edge. Please remember that illegible mark-ups may delay publication.

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USING E-ANNOTATION TOOLS FOR ELECTRONIC PROOF CORRECTION

Required Software

Adobe Acrobat Professional or Acrobat Reader (version 7.0 or above) is required to e-annotate PDFs. Acrobat 8 Reader is a free download: http://www.adobe.com/products/acrobat/readstep2.html

Once you have Acrobat Reader 8 on your PC and open the proof, you will see the Commenting Toolbar (if it does not appear automatically go to Tools>Commenting>Commenting Toolbar). The Commenting Toolbar looks like this:



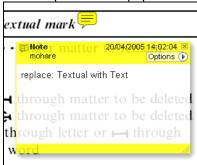
If you experience problems annotating files in Adobe Acrobat Reader 9 then you may need to change a preference setting in order to edit.

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Note Tool — For making notes at specific points in the text

Marks a point on the paper where a note or question needs to be addressed.



How to use it:

- Right click into area of either inserted text or relevance to note
- Select Add Note and a yellow speech bubble symbol and text box will appear
- 3. Type comment into the text box
- 4. Click the X in the top right hand corner of the note box to close.

Replacement text tool — For deleting one word/section of text and replacing it Strikes red line through text and opens up a replacement text box.



How to use it:

- 1. Select cursor from toolbar
- 2. Highlight word or sentence
- 3. Right click
- 4. Select Replace Text (Comment) option
- 5. Type replacement text in blue box
- 6. Click outside of the blue box to close

Cross out text tool — For deleting text when there is nothing to replace selection Strikes through text in a red line.

substitute part of one or more word(s) Change to italies Change to capitals Change to small capitals

How to use it:

- 1. Select cursor from toolbar
- 2. Highlight word or sentence
- 3. Right click
- 4. Select Cross Out Text



Approved tool — For approving a proof and that no corrections at all are required.



How to use it:

- Click on the Stamp Tool in the toolbar
- Select the Approved rubber stamp from the 'standard business' selection
- 3. Click on the text where you want to rubber stamp to appear (usually first page)

Highlight tool — For highlighting selection that should be changed to bold or italic. Highlights text in yellow and opens up a text box.



How to use it:

- Select Highlighter Tool from the commenting toolbar
- 2. Highlight the desired text
- 3. Add a note detailing the required change

Attach File Tool — For inserting large amounts of text or replacement figures as a files. Inserts symbol and speech bubble where a file has been inserted.

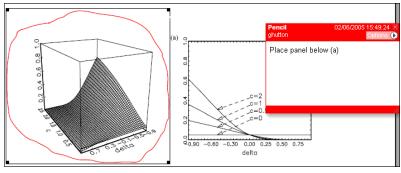
matter to be changed matter to be changed matter to be changed matter to be changed

How to use it:

- 1. Click on paperclip icon in the commenting toolbar
- 2. Click where you want to insert the attachment
- 3. Select the saved file from your PC/network
- 4. Select appearance of icon (paperclip, graph, attachment or tag) and close

Pencil tool — For circling parts of figures or making freeform marks

Creates freeform shapes with a pencil tool. Particularly with graphics within the proof it may be useful to use the Drawing Markups toolbar. These tools allow you to draw circles, lines and comment on these marks.



How to use it:

- Select Tools > Drawing Markups > Pencil Tool
- 2. Draw with the cursor
- 3. Multiple pieces of pencil annotation can be grouped together
- Once finished, move the cursor over the shape until an arrowhead appears and right click
- 5. Select Open Pop-Up Note and type in a details of required change
- 6. Click the X in the top right hand corner of the note box to close.



Help

For further information on how to annotate proofs click on the Help button to activate a list of instructions:

