

Giving Reference to the Pronominal ‘è’ in Ga.

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Abstract

The paper investigates the third person singular pronoun anaphor *e* in Ga, a Kwa Language. The pronominal *e* which is prefixed may be glossed as ‘he’, ‘she’ or ‘it’. This pronominal which is prefixed refers to a definite third person discourse entity. It has no gender distinctions and it has also no animate distinctions. In Ga the pronominal *e* is attached to the verbs when in subjective position. When the pronominal is prefixed to the noun it marks possessive. However there are certain contexts in which the interpretation of the pronominal can be ‘he’ only or ‘she’ only and other instances cannot be either of them. The aim is to find how the singular pronoun anaphor could be disambiguated in discourse especially where giving the referent to the anaphor is not simple. The paper applies the Centering Theory to analyse utterances in which this pronoun occurs and also the Givenness Hierarchy was considered in some cases where the referent resolution process involves a choice between two candidate referents. Data used was elicited by the researchers after having several chats with other natives of Ga. It came to light that in addition to the theories applied, the sociocultural norms and the lexical verb give clues in resolution of the third person singular pronoun.

Keywords: pronominal, anaphor, centering theory, disambiguate, referent

1. Introduction

Nouns as a lexical class in languages occur in human speech and writings daily. These nouns can be replaced with pronouns or pronominals and the reference can be deduced from the context as to what they refer to. Pronominals or pronouns used interchangeably in this paper may be of various types such as personal, interrogative, indefinite, enclitic and inclusive types among others (Sinha 2013). In the literature pronouns are postulated to have grammatical features such as person distinctions (first person, second person third person etc), number (singular, plural, dual), gender distinctions (masculine, feminine) and grammatical functions (subjective, objective, ergative, absolutive etc). These grammatical features differ from language to language for example in terms of number English has singular and plural whereas most Philippine languages have three namely singular, plural and dual (Dita 2010). For instance Ga, a Kwa language of the Niger Congo family spoken in Ghana, mainly, has no gender distinctions which is similar to Philippine languages (Dita 2010) as opposed to English that has masculine and feminine. There are also languages that the shape the pronoun may change due to its occurrence that is to say the form may differ as to whether it occurs as subject, object or indirect object (Siewerska 1999, Uchihara 2010) whereas in others the morphological shape of the pronoun will be the same but may have differences in their syntactic properties (Carleton and Waksler 2000). The form of the pronominal in the orthography may be free or bound as seen for instance in English where the pronominals are mostly free unlike Ga where it is attached to the verb in subject position and attached to a noun when it is functioning as a possessive otherwise it stands alone in object position. Uchihara (2010) also claimed that pronouns in Edo, a language in the city of Nigeria spoken mainly in Benin City, are free and not bound and adverbial elements can appear in between a pronoun and a verb or tense aspect markers.

Pronouns or pronominals have been studied from different perspective such as descriptive study (Skinner 1967, Kasha, Lalitha and Subbarao 1991, Uchihara 2010, Haroarson 2011), morphosyntactic study (Siewierska 1999, Donohue and Sawaki 2007, Carleton and Waksler 2000, Dita 2010, Sinha 2013), Semantics (Reinhart 1983) and pragmatic study (Reinhart 1981, 1983a, 1983b., Yosef and Reinhart 1981, Gundel 1996, Poesio and Stevenson 2000, Ajayi and Filani 2014) among others. In this paper the study examines the resolution of pronominal in Ga. There are works in pronoun resolution but the researchers have not come across one in Ga and therefore saw the need to investigate this phenomenon in the language. Such works on pronoun resolution include Hobbs (1977), Wooley (1998), Prasad and Strube (2000), Tetreault (2001), Grigorova (2011), and Chen and Ng (2016) just to mention a few. Some of these related works on pronoun resolution proposed rules for identifying the antecedent of the pronouns (Grigorova 2011), others postulated ways and methods of disambiguating pronouns such as using surface expressions, topics and foci and factors such as morphological knowledge, syntactic knowledge, grammatical role as well as heuristic rules are considered in giving reference to the pronoun in discourse (Prasad and Strube 2000, Sobha 2007, Grigorova 2011). The focus of the paper is to resolve the third person singular Ga pronoun only, and not other Ga pronouns that exist in Ga. The first person *mi* ‘I/me/mine’ and second person *o/bo* ‘you/yours’ singular pronouns in Ga are not ambiguous.

2. Data Source

The data for the paper were derived from a collection of chats over a period of 2 years 2010 to 2012. The researchers took randomly from recorded conversations written down and also in addition over the previous years of teaching the examples and discussion among the students in the Ga unit of the Ga-Dangme Department of University of Education, Winneba in Level 300 (third year) Morphology and Syntax class. The students who are mostly native speakers of Ga have an average age 24. The disambiguation or giving reference to the pronoun was confirmed from unstructured interviews with two Ga native speakers above the age of 55 consisting of one male and female in order to have a good representation in terms of gender and confirmed the data from the older people perspective as well. The two older speakers live in Accra and are highly educated. It should be noted that Ga is spoken mainly in the Greater Accra region and it is the language of the inhabitants of that region. The selected examples were shown to them and discussion followed to verify the reference for the pronoun anaphor. The theories are then applied and the result discussed.

3. Theoretical Framework

This paper will take a close look at the anaphor *e*, the third singular pronoun in discourse. The Centering Theory (Walker and Prince, 1993, 1995) will be used to analyse utterances in which this pronoun occurs. The Givenness Hierarchy (Gundel, Hedberg and Zacharski, 1993) (GHZ) will be considered in some cases where the referent resolution process involves a choice between two candidate referents. It is apparent that the grammar of Ga reserves the highest cognitive status – In Focus in the GHZ terminology – for the referents of subject phrases, and that the referent of any non-subject only gets the lower cognitive status of Activated, just like the referents of the emphasized subject pronoun *le* in (7) and (8).

3.1 Centering Theory

The Centering theory (Walker and Prince 1993, 1995) postulates that discourses are taken to consist of constituent segments and each segment is represented as parts of a discourse model. “Centering is a way of modeling attentional state in discourse; it is intended as a component theory of local discourse coherence (Joshi and Weinstein, 1981, Grosz, Joshi and Weinstein 1983, 1986)”.

In Centering, an utterance U_i in a coherent local sequence of utterances has an effect on the structure of the discourse. Each utterance evokes a set of discourse entities or file cards. These are referred to as FORWARD-LOOKING CENTERS (Cf). The set {Cf} is supposed to contain exactly one member referred to as the BACKWARD-LOOKING CENTER (Cb). The Cb is similar to what is called ‘topic’ (Reinhart 1981, Horn 1986) and this links the current utterance to the previous utterance. The members of the set of FORWARD-LOOKING CENTERS {Cf} are ranked according to discourse salience. The highest ranked member of {Cf} is the PREFERRED CENTER (Cp). The Cp makes a prediction about the Cb of the following utterance but it is just a prediction, which may not be borne out. In addition to the Cp, Cb and Cf. Centering includes some constraints as shown here:

CONSTRAINTS.

For each utterance U_i in a discourse segment $U_i, \dots U_m$

- a) There is at most one BACKWARD-LOOKING CENTER, Cb b)

Every element of the FORWARD-LOOKING CENTERS list of U_i , (Cf (U_i)), must be realized in U_i .

- c) The center Cb (of U_i) is the highest ranked element of Cf (U_{i-1})! that is realized in U_i .

In the centering framework, local coherence is meant to reflect the hearer’s inference load when interpreting a discourse sequence. The changes or shifts in the Cb is a factor that determines local coherence. This is reflected in the definition of the centering transitions. Below is a summary of the transitions (Brennan, Friedman, and Pollard, 1987).

Transitions.	Cb(U_i)= Cb(U_{i-1})	Cb(U_i) \neq Cb (U_{i-1})
Cb (U_i) = Cp(U_i):	Continue	Smooth-shift.
Cb(U_i) \neq Cp(U_i):	Retain	Rough-shift.

The transitions are ranked according to the hearer’s perceived inference load by the Ordering rule below. In addition is a so-called Pronoun rule which reflects the fact that speaker’s use of pronouns (and zero pronouns) demonstrates which entities the speaker believes to be most salient currently, the Cb, as the link to the prior discourse

Rules:

- a) Pronoun Rule: For each U_i in a discourse segment $U_i \dots U_m$, if some element of {Cf (U_{i-1})} is realized as a pronoun in U_i , then so is Cb (U_i).
- b) Ordering rule: Transition states are ordered: Continue is preferred to Retain, which is preferred to Smooth-shift, which is preferred to Rough-shift.

3.2 The Givenness Hierarchy.

Gundel, Hedberg and Zacharski's (1993) Givenness Hierarchy recognizes that the form of referring expressions depends on assumed cognitive status of the referent. Six cognitive statuses are proposed which are found to be relevant to the form of referring expressions in natural language discourse. This is their hierarchy of cognitive statuses and matching types of referring expressions.

The GHZ Hierarchy is seen below

In		uniquely			type
focus >	activated >	familiar >	identifiable >	referential >	identifiable
	that				
it	this	that N	the N	indefinite this N	a N
	this N				

The idea is that the cognitive status related to a given type of referring expression is a necessary and sufficient condition for the appropriate use of expression. Each status entails all lower statuses.

4. Data Discussion

In Ga, the pronoun *e* which is prefix orthographically to verbs may be glossed as 'he', 'she' or 'it' in subject position and may be glossed 'his', 'her' or 'it' when attached to a noun. This pronominal refers to a definite third person discourse entity. Its form changes when in object position as discussed below in (6) and (7). It has no gender distinctions and it has also no animate distinctions. The examples below illustrate.

- (1) Ama nà Kofi ni é-ηmɔ̀.¹
 Ama saw Kofi and 3SG-laugh.PST
 'Ama saw Kofi and s/he laughed.'
- (2) Kojo bóte tsú lé m̀li, shí è-nà-àà è-màmi.
 Kojo enter.PST room DEF inside, but 3SG- see- NEG 3SG.POSS .mother.
 'Kojo entered the room but he did not see his mother.'
- (3) Plété lé gbèé shì, ni é-jwà.
 Plate DEF fall.PST down, and 3SG- break.PST
 'The plate fell down and it broke.'

When the pronoun *e* occurs as a subject, it is attached or prefixed to the verb as illustrated in (1), but *e-* can also be prefixed to a noun, as seen in (2) above where it appears as a prefix in the direct object phrase *emami*, 'her mother' and then its function is that of a possessive reflexive. The two prefixes *e* of *ènààà* and *èmami* are coreferential by virtue of the grammatical constraints of Ga. In example (1) above there are two candidate antecedents, *Ama* and *Kofi*, thus the referent of the pronoun may be *Ama* or *Kofi*. In order to secure reference to *Kofi* in (1), the verb would have to be in the continuous form and the tone on the word *ni* high. Where the *ni* now means relative pronoun and in that instance *Kofi* is clearly the referent as the relative clause refers to *Kofi* and not *Ama* as illustrated in (4). On the other hand, a different meaning will result if the tone of the *ni* is low as that means that it is a conjunction as in (1). For instance the sentence in (4) gives the referent to *Kofi* with no ambiguity involved due to the verb tense/aspect and the relativiser *ni*.

- (4) Ama nà Kofi ní è-è-ηmɔ̀
 Ama saw Kofi REL PRO 3SG-PROG- laugh
 'Ama saw Kofi laughing/ Kofi who was laughing.'

In this instance of (4) the referent will be *Kofi* as the relative clause will be modifying *Kofi* who is in the object position. The first '*e-*' in the continuous form of the verb will refer to *Kofi* as that is the modifier clause. The pronoun *e* cannot be deleted when it is in subject position in the second of two coordinate clauses as in (1). It must be obligatorily attached to the verb unlike the situation in English which allows a single subject phrase for conjunct verb phrases, especially when the utterance is used to narrate sequences of events. The sentence is ungrammatical and unacceptable when the pronoun is left out for the verb *jwà* 'break'. Cf. (5).

- (5) *Plété lé gbèé shì ni jwà.
 Plate DEF fall.PST down and broke.
 'The plate fell down and broke.'

In Ga the third person pronoun is not attached to any lexical word when it occurs in the object position. Rather, it is an independent word form which is homophonous with the definiteness particle in Ga. This form is *lé*, as seen in (6). Occasionally it may be found in subject position, but then mainly for emphasis or to express surprise and contrast to some other referent, as in example (7), or emphasis in conjunction with a focus particle, *hú* (too), as in (8).

- (6) Adole yì lè.
 Adole beat 3SG.
 ‘Adole beat him/her/it.’
- (7) Lè è-bà?
 3SG 3SG- came.
 ‘HE is the one who came?’
- (8) Lè hú èbà?
 3SG too 3SG-came
 ‘He too came?’

The independent pronoun *lè* can be interpreted as “him”, “her” or “it”, depending on the context and the selection restrictions pertaining to the lexical verb. *Lè* is the focus of information in (7) and the focus of the speaker’s question in (8). These are pronominal uses for which English requires a stressed pronoun, as opposed to the object pronoun in (6), which in its English form may or may not be produced with stress.

4.1 Results and Analysis

In certain utterances, it may not be straightforward to determine the antecedent of a third person pronominal anaphor. Let’s consider the example below in (9) which will be analysed using the Centering Theory.

(9) H`ó` lèèbì, Ama mà mí jè jàrá lé n` kèbà. Èbóté tsú lé mli` nì ènà Ama kè ègbèé lé miishwé. Èshwé èyítsó hè nì ekeé ‘enjoy playing?’ . N` sèè Ama jè kpó nì èyàwó nìyéní kèbáhá lè.

The analysis:

- (9a) H`ó` lèèbì, Ama mà mí jè jàrá lé n` kèbà.
 Saturday morning, Ama mother be from market DEF on came
 ‘Saturday morning, Ama’s mother returned from the market.’

Cb = no Cb

Cf = {Ama mother’s, the market, Saturday morning, Ama.}

Cp = Ama’s mother.

- (9b) È-bóté tsú lé mli`.
 3SG-enter room DEF in.
 ‘She entered the house.’

Cb = Ama’s mother.

Cf = {Ama’s mother, the house.}

Cp = Ama’s mother.

Transition = continue

- (9c) ...nì è-nà Ama kè è-gbèé lé miishwé.
 ... and 3SG -saw Ama and 3SG POSS- dog DEF PROG-play
 ‘...And she saw Ama and her dog playing.’
 (‘...And she saw Ama playing with the dog.’)

Cb = Ama’s mother

Cf = {Ama’s mother, Ama, Ama’s dog.}

Cp = Ama’s mother.

Transition = continue.

- (9d) È-shwé è-yítsó hè nì è-kèé ‘enjoy playing?’
 3SG-pat 3SG POSS-head body and 3SG-say ‘enjoy playing’
 ‘She patted her/its head and said ‘enjoy playing?’

Cb = Ama’s mother

Cf = {Ama’s mother, Ama, Ama’s head, the dog, dog’s head}

Cp = Ama’s mother.

Transition = continue.

- (9e) N` sèè, Ama jè kpó ni.....
 ‘Later Ama went out and...’

Cp = Ama.

Cf = {Ama,}

Cb = Ama.

Transition = retain

- (9f) È-yà-wó níyéní kè-bá- há lè.
3SG-EGR-take food AUX-ING-bring 3SG.
'She brought food for her/it.'
Cb= Ama
Cf = {Ama, the food, Ama's mother, the dog}.
Cp = Ama.
Transition = continue

From the above text, the narrative is about Ama and her pet (dog) playing. Her mother returned from the market and entered the room and saw them. She then patted Ama? Or the pet? It may be at first glance that she patted the dog so the antecedent for the pronoun will be the pet and if she patted Ama then the anaphor referent will be Ama. It becomes clear when you continue to read the sentence till the end which is 'enjoy playing' which disambiguates the pronoun that it is human beings that are spoken to normally. The speaker continues to say Ama went to bring food for whom? For the dog or for Ama's mother or for Ama herself? Use of proper names or a definite description would be preferable to avoid misunderstanding of the reference relations as illustrated in (10) and (11).

- (10) Ama mà mí shwé Ama yítsó hè.....
Ama mother pat.PST Ama head body.....
'Ama's mother patted Ama's head.....'

- (11) Ama mà mí shwé gbèé yítsó hè.....
Ama mother pat.PST dog head body.....
'Ama's mother patted the dog's head.....'

Let's consider the example below:

- (12a) Adole kè Ama kpè yè gbé lé nò'.
Adole move Ama meet.PST be road DEF on
'Adole met Ama on the road.'/ 'Adole and Ama met on the way.'

Cb = no Cb
Cf = {Adole, Ama, the road.}
Cp = Adole.

- (12b) È-fò` lè ninè.
3SG- throw 3SG hand.
'She waved her.'

Cb = Ama? or Adole?
Cf = {Adole, Ama}
Cp = ?
Transition = Retain? Or continue?

It is a bit of a problem to determine the reference of the subject pronominal prefix *e-* and the (demonstrative) object pronoun *lè* here in (12b). However, if *Ama* is older than *Adole* it is possible that she (*Ama*) waved first, as that is the normal thing. However, any of them could have waved first if they are co-equals. But apart from that possible contextual clue there is nothing that would favour reference to the one rather than the other, and the use of pronominal reference in this utterance is therefore not optimally relevant.

It may also be helpful if we apply the Givenness Hierarchy to find the antecedent of the anaphor. It may be said that *Adole* has higher cognitive status than *Ama* as the grammatical subject refers to *Adole*. It may be appropriate then to say that the subject pronoun in (12b) refers to *Adole* and not *Ama*. The object pronoun *lè* will then have the phrase *Ama* as its antecedent. What can be useful to determine the antecedents, and ultimately the intended referents, will be sociocultural norms of the society and the context. This includes knowledge of age differences. If no such knowledge is available, then *Adole* will be the referent of the subject pronominal prefix in (12b), because as subject referent in (12a) it has higher cognitive status in the Givenness Hierarchy. It is the only referent with the cognitive status In Focus.

Other examples are considered below.

- (13a) Kofi bóté gbèé lé tsú lé mli ni
Kofi enter-PST dog DEF house DEF inside and...
'Kofi entered the dog's kennel and....'

Cb = no Cb
Cf = {Kofi, the dog, the dog's kennel.}
Cp = Kofi.

- (13b) E-nà gbèè bí lé kòmétóó yè jèí.
 3SG-saw dog child DEF alone be there
 ‘He saw the puppy there alone.’
 Cb = Kofi
 Cf = { Kofi, the puppy, the kennel }
 Cp = Kofi.
 Transition = continue
- (13c) È-kè lè bɔ́í shwé -mɔ̀.
 3SG-move 3SG began play-NMLZ.
 ‘He/it began playing with it/him?’
 Cb = Kofi ? puppy?
 Cf = { Kofi, puppy, }
 Cp = Kofi ? puppy?
 Transition = retain or continue?
- (13d) È-tsé- èè tsó ní è-mámí bà.
 3SG-delay.NEG than that 3SG POSS- mother came.
 ‘No sooner than that its / his mother came.’
 Cb = Kofi ? puppy’s mum (bitch)?
 Cf = { Kofi , bitch ? }
 Cp = ?
 Transition=?

From the example in (13c) it is unclear to us what the preferred centre is. It could be either *Kofi* or *gbèè* ‘the puppy’. This is because we cannot rule out the possibility that the puppy may have been happy to see someone it could play with and therefore when it saw *Kofi*, it jumped and started to play with him (*Kofi*). On the other hand it could be that *Kofi* entered the kennel to play with the puppy as he may like dogs and wanted to play with the new puppy. Therefore if it is said that the preferred center in (13c) is *Kofi*, then the object pronoun *lè* will refer to the puppy and vice versa.

Applying the Givenness hierarchy to utterance (13c) *gbèè* ‘the puppy’ is uniquely identifiable and activated, but not in focus, unlike *Kofi*, the only discourse referent in focus. The subject referent in this instance will be *Kofi*, because he has the higher cognitive status. If *Kofi* is the antecedent for the anaphor in subject position and the antecedent for the anaphor in object position is *gbèè* ‘the puppy’, then the transition will be Continue but if the antecedent in subject position is the puppy then there is a retain transition.

This could be a perfect analysis for the example (13c) but what overrides Centering constraints in the pragmatic process of resolution of the anaphors in this narrative about *Kofi* and the dog is the sociocultural norms of the Ga society which will say that the dog cannot be the referent for the pronominal prefix in the subject. Dogs (animals in general), though they may initiate a play, cannot be described as playing with human beings but rather it is human beings that play with animals.

In (13d), it is not clear to us whose mother came. Is it the puppy’s mother or it is *Kofi*’s mother? It could be either. The addressee’s choice will also depend on the reference assigned to the previous anaphors (pronouns both in subject and object positions) in (13c). What may help also us in disambiguating the pronoun will often be information coming from the predicate. For instance if the text continues with a sentence like the one in (13e).

- (13e) É-shé gbéyèi.
 3SG- fear afraid
 ‘He/it became afraid.’

In this situation it will be clear to the addressee that it is the bitch which came and not *Kofi*’s mother because most often mothers (of animals) are very protective of the their little ones especially when they cannot fend for themselves and they become aggressive and may bite anyone who comes closer to their babies. In this instance and having this contextual assumption in our minds we may say it is the bitch which came into the kennel and *Kofi* became afraid. It is not realistic to think that it is the puppy which became afraid. In (13e) then the pronoun refers to *Kofi*.

From the examples so far discussed, one can see that pronominal reference in Ga gives the hearer so little information about the intended referent that pronoun use can make it hard to choose between two or more candidate antecedents which appear to be equally salient in the discourse. From the analysis, it is clear that in addition to the Givenness Hierarchy and the Centering Theory, which can help us understand communicator’s choice of referring expression in a given situation, context, verbs (predicate) and furthermore the norms of a particular language society are also useful in determining the referent for this third person singular pronoun,

whether in subject position or object position.

Below is an example in (14a-b) where the verb (predicate) helps in disambiguating the reference of the pronoun.

(14a) Kojo nà Ama yè màŋ` lé mli.
Kojo see.PST Ama be town DEF in
'Kojo saw Ama in town.'

Cb = no Cb

Cf = {Kojo, Ama, the town.}

Cp = Kojo.

(14b) È -kpé bí.
3SG- carry child
'S/he is carrying a baby (at the back).'

Cb = Ama.

Cf = {Ama, the child,}

Cp = Ama (not Kojo).

Transition =Retain

In utterance (14b) the referent for the pronoun in subject position is *Ama* and not *Kojo*. This is because of the verb *kpé* which means 'carry at the back'. In the Ga society if one hears such a sentence it will be very easy to find the antecedent of the pronoun because it is women who carry babies at the back and not men. The verb in this case has helped to disambiguate the pronoun and the gender status has also been made clear to us. It is inconceivable that it was *Kojo* carrying the baby at the back. If it were *Kojo* carrying the baby it will hardly be at the back and a different verb will be used for that situation. If the sentence were to be as below in (15) the antecedent could not be easy to identify as it could be *Ama* or *Kojo* as the meaning of the lexical verb gives us no clue in this situation.

(15) È-hié bí.
3SG- hold child
'S/he is holding/carrying a baby.'

In (15) the subject pronoun could be *Kojo*, as from the very first utterance (14a) he is in the topic and is in focus. It will be the preferred center in this case and will be highest in the set of forward looking centers in the discourse.

Let's assume that the sentence in (14a) is instead followed by something else, namely (16) below. (It does not matter whether you say 'Ama met Kojo in town' or 'Kojo met Ama in town'. The referent of the pronoun will be the same as it is the verb and the norms of the society that is helping to resolve the reference in this instance.

(16) E- tá báísíkò.
3SG -sit bicycle.
'He is riding on a bicycle.'

In (16) the referent will be *Kojo*, whether it is in focus position or not. The reason is that the predicate gives us a clue in determining the referent: the gender is clear due to the activity involved (bicycle riding) which is denoted by the object *báísíkò* 'bicycle'. This is done by the males and not ladies. It is very rare to see a lady riding a bicycle in the southern part of the Ghanaian society as it is frowned upon and there are so many beliefs about that which I may not try to delve into here now. The lexical meaning of the verb *tá* 'sit' does not tell us the referent per-se as the verb used in other contexts has no gender distinctions. It is the activity involved here which is the key for us. If the utterance were to be as in (17).

(17) E-tá òkp`ɔŋ` /tsɔ` nè.
3SG- sit.PST horse/car
'S/he rode a horse/car.'

In this instance in (17), the agent does not have to be a lady. It could be either *Kojo* or *Ama*. This is because it is acceptable to see either a male or female riding a horse or riding in a car. The object in (17) gives us no clue to resolve the pronoun unless we apply the Centering theory and GHZ hierarchy. With Centering analysis it will be *Kojo* following from example (14a) above.

5. Conclusion

In summary, this paper has discussed so far the pronominal which refers to a third discourse entity in Ga. This pronoun which may be ambiguous in certain utterances was studied. The Givenness Hierarchy (Gundel, Hedberg, Zacharski 1993) and Centering Theory (Walker and Prince 1996) was applied to assess what the most likely third person singular referent might be in a context where more than one candidate antecedent is available.

It came to light that in addition to reference resolution by these theories (Givenness Hierarchy and

Centering) other factor may also be considered as well. Important additional contextual information constraining the search for the right antecedent and determining the referent of this discourse entity in Ga, the lexical meaning of the verb(predicate), context and the norms of the society may also be used in combination with less culture-specific clues to assign reference to the pronoun *e*. The paper has dealt with the singular pronoun and this serves as a guide to help in the interpretation of the Ga impersonal pronoun which may have to be investigated in future. This paper has contributed to pronoun resolution in African languages and hope that other languages not yet studied will be examined and where possible comparative analysis can be employed to find whether the theories alone can disambiguate or the cultural norms and lexical verb are also factors to be considered in the reference resolution.

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Notes

¹ [ɲm] is a single consonantal segment with double place of articulation.

List of Abbreviations

AUX	-	auxilliary
DEF	-	definite article
EGR	-	egressive deictic marker
ING	-	ingressive deictic marker
NEG	-	negative particle
NMLZ	-	nominaliser
POSS	-	possessive pronoun
PROG	-	progressive
PST	-	past/aorist
REL PRO	-	relativiser
SG	-	singular
3	-	third person