

# THE PROTOTYPES OF THE ENGLISH 'CUP' AND THE LUBA 'DIKOPO'

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## A B S T R A C T

This paper is an attempt to find out the prototypes, or ideal types, of two cognate (in usage) words, namely the English 'cup' and the Luba 'dikopo'. The findings are that these items are basically different both in function and in form, doubtless because of their belonging to two different cultures. Because of the fuzziness of their meanings, these items may constitute a teaching/learning problem.

## R E S U M E

Cette etude essaie de determiner les prototypes, ou types representatifs, de deux cognats, notamment le lexeme anglais 'cup' et le lexeme luba 'dikopo'. Il ressort de cette investigation que ces recipients different a la fois par leurs fonctions et leurs formes, sans doute suite a leur appartenance a deux cultures differentes. L'imprecision de leurs champs semantiques peut ainsi causer des problemes d'apprentissage,

Many studies have been carried out either to identify universal natural categories and their organization in different cultures (Rosch, 1973; Rosch, 1977) or to determine membership to the same family (Rosch and Mervis, 1975). In either case, it was found very difficult to reach a unanimous agreement since people use hedges to categorize nature and family, because of fuzziness of meanings. Nature and family are seen as organized not in an either/or, but in a more/less fashion. Furthermore, natural categories vary from place to place, and this consequently affects the way people perceive objects in the real world (e.g. drawings of a tree in northern countries versus in African savannas). Therefore, it is even difficult to determine the prototypes of man-made categories as both the latter's functions and forms are often culturally defined.

This essay attempts to determine the prototypes of two cognates (in usage), i.e. the English 'cup' and the Luba 'dikopo'. Prototypes, or ideal types, are 'those members of a category which most reflect the redundancy structure of the category as a whole' (Rosch, 1977:36). I am going to cover these points: 1) The origin of 'dikopo'; 2) Description of data collection and method of approach; 3) A survey of the semantic fields of 'dikopo' and 'cup'; 4) Description of the experiment and tests treatment and 5) Interpretation of the scores and an attempt to determine the prototypes.

### 1. Origin of 'dikopo'

The lexeme 'dikopo' is a loan word in Ciluba. Its origin remains controversial. In fact, some researchers assume that it is an adaptation of the English word 'cup', indirectly borrowed via Lubumbashi Swahili ('kopo'). According to others, it is a Portuguese loan word which got into Ciluba either via Kikongo (via trade), or directly from Angolan Portuguese. Anyway it has been integrated in Ciluba to such an extent that it takes noun prefixes di-/ma- or ka-/tu- (for diminutives) in singular/plural opposition. As is often the case, when a word is borrowed in another language and has to evolve in a different culture, it undergoes phonological, morphological and/or semantic changes.

### . Collection of data and method of approach

The prototype of 'cup' has already been discussed at length (Labov, 1973; Anderson, 1975; Leech, 1976). I found Leech's sample more reliable in size than the one I was going to use. Therefore I used his results for my data. It is worth noting that his study itself is an implementation of Labov (1973). Leech criticizes the use of visual-stimulus alone and suggests its use together with linguistic-stimulus. In addition, I used Hornby (1986) and the L.O.B. corpus (2) to survey the semantic field of 'cup'. The following are the phrases illustrating the meanings of 'cup' which are covered in the L.O.B. corpus;

1. ... if you add milk to the tea in the CUP...
2. ... quarter-final in the Football League CUP ...
3. ... regarding the CUP, there must be great excitement...

4. ... to have a jug of non-alcoholic CUP about the place ...
5. ... I made a CUP of cocoa ...

The data of 'dikopo' are based on my intuition as a native speaker. I first investigated the value of 'dikopo', but eventually limited my questionnaire to 'dikopo' as a drinking-vessel. I constructed a platitude test (3) (Leech, 1976:156), and administered it to six Ciluba native speakers I succeeded to contact in some Universities in the United Kingdom (Durham, Edinburgh, Lancaster and Manchester).

As the method of approach, I resorted to the conjunctive use of Labov's visual-stimulus and Leech's linguistic-stimulus methods as suggested in Leech (1976), in order to reduce the limitations stemming from the use of either of these methods alone. However, the size of my sample prevented me from using the seven-point scale scoring system (Coleman and Kay, 1981; Leech, 1976). In this scoring system, answers are presented either according to degrees or to frequency of truth-value as follows (4):

Always true +3	Always false -3
Generally true +2	Generally false -2
Often true +1	Often false -1
Sometimes true and sometimes false 0	

The three answer-system at least points out the relative importance of each criteriality. It is hoped that comparison of the scores of each criteriality for these lexemes will help to pinpoint discrepancies, which are the topic of this paper.

### 3. Semantic fields of CUP and DIKOPO

As previously stated, I used Hornby (1986) and the L.O.B. corpus to investigate the value of 'cup'. As a noun, 'cup' is used in the L.O.B. corpus as a drinking-versell, contents (of a cup), championship, a trophea, and as a drink. Hornby (1986), on the other hand, supplies other uses of 'cup' as measure, idiomatic uses (e.g. not my cup of tea, in his cups) and also its uses as a verb.

4. The experiment and tests treatment

The following are the results of ~~the platitudes~~ test I used to identify the prototype of 'dikopo'. To avoid the confusion stemming from the interpretation of function, I kept the hedge 'primarily' in some platitudes despite the presence of 'sometimes' among the answers. For the reasons of space, I sometimes reduce the platitudes to essential words in the following section.

	YES	SOMET- IMES	NO
1. 'Dikopo' is a drinking-vessel	6	0	0
2. 'Dikopo' is made of plastic/metal	3	3	0
3. ... primarily used to drink beer/alcohol	0	2	4
4. 'Dikopo' has a handle	2	4	0
5. 'Dikopo' is breakable	0	3	3
6. 'Dikopo' has a saucer to go with it	0	4	2
7. 'Dikopo' gets slightly narrower...	0	4	2
8. ... primarily used to drink hot liquids.	0	3	3
9. ... is the same size from top to bottom	2	4	0
10. Priests drink wine in 'dikopo'...	3	2	1
11. 'Dikopo' is made of china	0	1	5
12. An emptied can is used as 'dikopo'...	3	3	0
13. ... is primarily used to drink water	6	0	0
14. 'Dikopo' is made of glass	0	1	5
15. 'Dikopo' is round ...	4	1	1
16. Write down the number of the prototype...No. 10:6			

5. Definition of prototypes

Platitudes of high criteriality on which informants agreed or disagreed significantly led me to define the prototype of 'dikopo' as:

1. a drinking-vessel, primarily used to drink water
2. it is made neither of glass, nor of china
3. it is the same size from top to bottom

(see picture No.110)

However, many answers remain questionable because of their contradiction with others. For instance, while all the informants agree about No 13 (... primarily used to drink beer/alcohol) and for No 8 (... primarily used to drink hot liquids such as milk, coffee/tea). They seem to ignore the hedge 'primarily'. Likewise, the hedge in No 6 ( 'dikopo 'has a saucer to go with it) implies drinking hot liquids rather than water.

As to its collocation, 'cup' as drinking-vessel or contents appears together with hot liquids (e.g. a cup of tea, a cup of coffee etc.), while 'cup' as trophea or championship collocates with names of sports (e.g. Football League Cup). Thirdly, 'cup' as measure collocates with uncountable nouns (e.g. a cup of flour, a cup of sugar). Finally, 'cup' is used in compounds either as the first morpheme (e.g. cuplike, cup-tie) or as the last morpheme (e.g. teacup, egg-cup).

As to its distribution, 'cup' appears either as a noun or as a verb. In the first case, its value includes six meanings as shown above.

Contrary to 'cup', 'dikopo' is a noun only. Its value includes these meanings: drinking-vessel, contents, drink, container (for a long storage) and measure. 'Dikopo' does not have the meaning of championship. As a container, it stands for both tins and cans.

Because of its extensive use, which leads to referential vagueness, this item is often used with another noun either as a noun adjunct (e.g. ngomba wa mu dikopo 'corned beef') or as a modified noun (e.g. dikopo dia mayi 'a mug of water').

Morphologically, it becomes makopo in the plural, or kakopo/tukopo in singular/plural opposition for diminutives. Finally, no compounding is possible with this item. A componential analysis will show the semantic fields of these lexemes as follows:

	DIKOPO	CUP
'championship	-	+
'container	+	-
NOUN 'drink	+	+
'drinking-vessel	+	+
'measure	+	+
'trophea	+	+
VERB'	-	+

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7. 'Dikopo' gets slightly narrower...	0	4	2
8. ... primarily used to drink hot liquids.	0	3	3
9. ... is the same size from top to bottom	2	4	0
10. Priests drink wine in 'dikopo'...	3	2	1
11. 'Dikopo' is made of china	0	1	5
12. An emptied can is used as 'dikopo'...	3	3	0
13. ... is primarily used to drink water	6	0	0
14. 'Dikopo' is made of glass	0	1	5
15. 'Dikopo' is round ...	4	1	1
16. Write down the number of the prototype...No. 10:6			

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(see picture No.110)

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This can be corroborated by the prototype of 'dikopo' (No 10), which is unlikely to be used with a saucer. The same contradiction is also noticed for No 9 (dikopo' is the same size from top to bottom) and the shape of the prototype. I found such answers too vague and unreliable to be worth interpreting. Therefore, I disregarded them in my definition of the prototype of 'dikopo'.

As previously stated, I relied on Leech's test (see Appendix) to define the prototype of 'cup'. Since my study is a contrastive one, I made some platitudes common to 'cup' and 'dikopo' so as to pinpoint semantic difference. Although shape and presence/ absence of a handle are also important criterialities, function and material remain basic for the definition of each prototype. Function here is understood as what the drinking-vessel is 'meant to be used for' and not emergency uses. 'Cup' can be defined accordingly as:

1. a drinking-vessel, mainly for drinking hot liquids out of
2. it is made either of china or some other pottery, but not of glass

This definition can be supplemented this way:

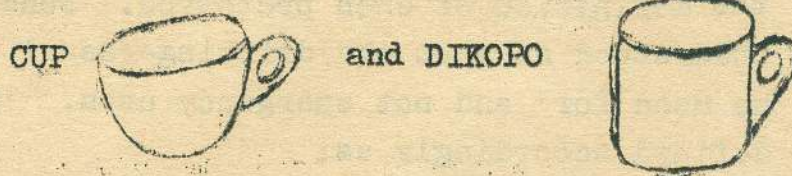
3. it has a handle
  4. it is round and gets narrower towards the bottom
- However, Anderson (1975:103) also lists grapejuice and fruit cups, as well as plastic and metal cups in older children's use. Older children are assumed to have reached adult-like competence. Glass is not cited as it is often understood to be at the same time a drinking-vessel and material.

The two tests are not identical as they do not contain the same platitudes. In fact, when constructing my test, I only selected Leech's platitudes which were relevant to my topic. Therefore, these tests do not show easily how the prototypes are different. It would have been interesting if Leech had tried "A cup is for drinking water out of".



Such a platitude would have made obvious the difference between the primary function of 'cup' and 'dikopo'. In fact, English people usually speak of 'a glass of water' instead of 'a cup of water'. Anyway, 'a glass of water' is also heard among Luba people who have a relatively high standard of living. Furthermore, the shape of 'cup' as previously defined rules out picture No 10 to stand for the prototype, but entitles either picture No 1, 2 or 5 to this position.

The scores of 'dikopo' are too contradictory to be useful for a reliable definition of the shape of 'dikopo'. Only the choice of picture No 10 gives an idea of what the prototypical 'dikopo' looks like. From all these criterialities, the following pictures can stand for the prototypes of:



To sum up, as Anderson (1975:97-98) puts it: "There is an interplay of form and culturally defined function, with an increasing weight being placed on the latter".

### Conclusion

In this paper, I aimed to find out the prototypes of 'cup' and 'dikopo'. Two similar tests, but which were treated differently because of the size of one sample, were used to this end. The comparison of the results of the tests showed that, though cognates in usage, these drinking-vessels are basically different both in function and form; doubtless because of their belonging to different cultures. Besides, determining prototypes remains a difficult and controversial endeavour as it is a more/less rather than an either/or decision. Therefore, care needs taking when teaching loan and cognate words, since the latter may display some discrepancies in meaning with their counterparts in the source language or culture.

Despite the size of my sample, which made it difficult for me to carry out a more reliable and conclusive study, this essay remains at least a useful pilot study in the domain of English and Luba prototypes.

N O T E S

1. This paper is a revised version of an essay I submitted at Lancaster University (December 1986) in Semantics (M.A. level). It has been implemented thanks to Dr. Jenny A. Thomas' feedbacks, to whom I remain indebted.
2. The L.O.B. corpus is a compilation of written British English, randomly sampled from publications, which first appeared in 1961. It is used as a source of examples in dictionary compilation and grammar writing, and it is a collective ownership of the Lancaster, Oslo and Bergen (L.O.B.) Universities.
3. A platitude test consists in asking informants to judge the truth-value of generic statements about the item under investigation.
4. Coleman and Kay (1981) present the results according to degrees of truth-value like 'absolutely true', 'very true' etc... while Leech (1976) present them according to frequency, as shown in the text.

Editorial note

Special concession was granted to allow this paper to be read in the language in which its author wrote it. Some sentences will therefore sound odd if not "incorrect"! Correspondence on any aspect of the work is welcome.

Anderson, E.S. 1975 "Cups and glasses: learning that boundaries are vague." Journal of Child Language 2:79-103.

30. Coleman, L. and Kay, P. 1981 "Prototype semantics:  
50. the English word 'Lie'". Language 57 (1) :26-44.

60. Guthrie, M. 1967 The Classification of Bantu Languages.  
International African Institute, London.

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Labov, W. 1973 "The boundaries of words and their meanings". In: C-J. N. Bailey and R.W. Shuys (eds.) New Ways of Analysing Variation in English: 340-373. Georgetown University Press, Washington.

Leech, G.N. 1976 "Being precise about lexical vagueness". York Papers in Linguistics 6: 149-165.

Rosch, E.H. 1973 "Natural categories" Cognitive Psychology 4: 328-350.

Rosch, E.H. 1977 "Human categorization". In : N. Warren (ed.) Studies in Cross-Cultural Psychology: 1-49. Academic, London.

Rosch, E.H. and Mervis, C.B. 1975 "Family resemblances: studies in internal structure of categories." Cognitive Psychology 7:573-605.

APPENDIX

Leech's test

Ranked list of criteria with indices of criteriality

1. A cup is hollow in the middle	.93
2. A cup is a physical object	.93
3. A cup has an open top	.83
4. A cup is a drinking vessel	.82
5. A cup is a container (i.e. an object for containing things).	.80
6. A cup is for drinking out of	.77
7. A cup is a vessel (i.e. an object for containing liquid)	.75
8. A cup has a flattish bottom	.74
9. A cup is a man-made object	.71
10. A cup has a handle	.67
11. A cup is round seen from the top	.64
12. A cup gets slightly narrower towards the bottom	.43
13. A cup is made of china or some other kind of pottery	.39
14. A cup is breakable	.37
15. A cup has a saucer to go with it	.36
16. A cup is a container (or vessel) of middling depth	.17
17. A cup is a deep container (or vessel)	.15
18. A cup is for drinking hot liquids out of	.11
19. A cup is made of china	.11
20. A cup is white	-.03
21. A cup is a shallow container (or vessel)	-.18
22. A cup is blue	-.23
23. A cup is made of paper	-.33
24. A cup is made of glass	-.38
25. A cup leaks	-.47
26. A cup is for putting flowers in	-.61
27. A cup is for eating out of	-.62
28. A cup has two handles	-.62
29. A cup is a musical instrument	-.84
30. A cup has an open bottom	-.93

PROTOTYPE SEMANTICS: QUESTIONNAIRE

Please write the number corresponding to your answer in the square.

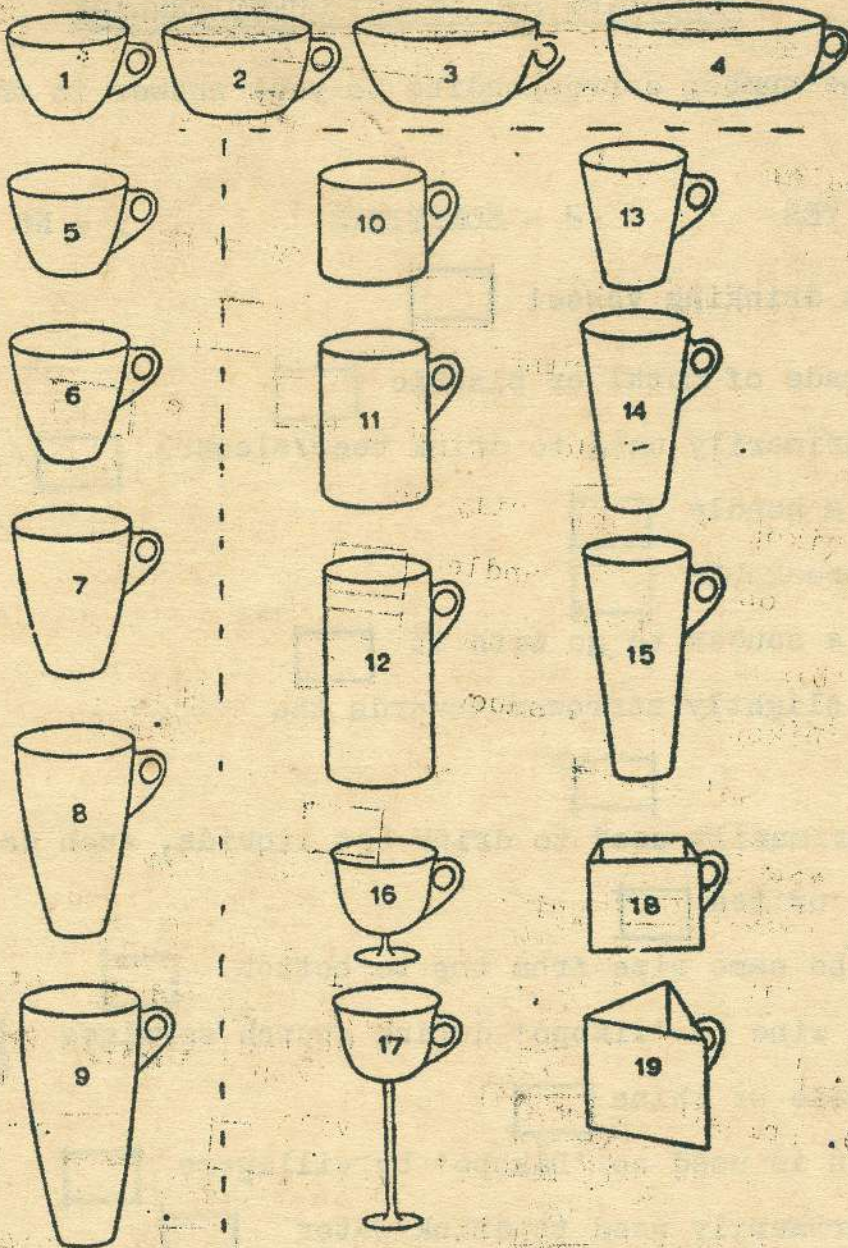
1 = YES

2 = SOMETIMES

3 = NO

1. 'Dikopo' is a drinking vessel
2. 'Dikopo' is made of metal or plastic
3. 'Dikopo' is primarily used to drink beer/alcohol
4. 'Dikopo' has a handle
5. 'Dikopo' is breakable
6. 'Dikopo' has a saucer to go with it
7. 'Dikopo' gets slightly narrower towards the bottom
8. 'Dikopo' is primarily used to drink hot liquids, such as milk, coffee, or tea
9. 'Dikopo' is the same size from top to bottom
10. Priests drink wine in 'dikopo' during church services
11. 'Dikopo' is made of china
12. An empty tin is used as 'Dikopo' by villagers
13. 'Dikopo' is primarily used to drink water
14. 'Dikopo' is made of glass
15. 'Dikopo' is round when seen from the bottom
16. Write down the number of the prototype of 'dikopo'   
(see handout)

FIGURE 5. Series of cup-like objects.



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Linguistic Examples: A letter, word or phrase cited as a linguistic example should be underlined, followed by the gloss in single quotation marks. Authors should use standard phonetic symbols such as those of the IPA or IAI. Special symbols drawn by hand should be done clearly.

Footnotes: Footnotes should be typed on separate pages, following the main text and numbered consecutively. They should be as few and as short as possible.

References: References should be cited in the text according to the author and date system used by journals, e.g. (Halliday et al., 1964), or as Batibo (1980, p.172-175) said .....

The full alphabetical list of references cited should be typed following the main text. Titles of books or journals should be underlined, and those of articles put in single quotes. The list should be prepared according to the following model:

- Batibo, H.M. (1980), 'Description of Sample Bantu Languages of Tanzania by Derek Nurse', a review