

Interpretation of Chichewa idioms: an optimality theoretic account

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Introduction

Idioms are viewed as a source of problems in language studies because they behave like lexical items and in other cases they behave like syntactic elements. This is problematic because it makes idioms defy concepts of syntax and semantic analysis. In this way idioms create problems for both performance and linguistic models hence they have been used to challenge syntactic and semantic claims about language. Because of the nature of idioms, Ifill (2002) refers to them as 'odd ducks'. The oddity of the idioms has made the development of viable models difficult. The models developed hitherto have not successfully accounted for the interpretation of idioms in that some fail to account for idiom flexibility and that they imply that idiomatic meaning can be literally paraphrased while others do not recognise the existence of a literal meaning along side the idiomatic meaning. This paper attempts to account for the interpretation of idioms by recognising both their flexibility and the fact that literal meaning exists along side idiomatic meaning. This is done through the use of a theory that uses information from different sources: the Optimality Theory. The paper presents an outline of Prince and Smolensky's (1991,1993) Optimality Theory (OT). Then an analysis of the comprehension of compositional and noncompositional idioms is developed and some evidence supporting an Optimality Theoretic account is presented.

Optimality theory

OT is a theory of grammar which was developed, as already pointed out, by Prince and Smolensky (1991, 1993). In OT, a grammar consists of a set of well-formedness constraints which apply simultaneously to representations of structures and which are soft (i.e. the constraints are violable). An important subset of these constraints is shared by all languages, forming part of Universal Grammar. Individual languages rank these universal constraints differently in their language specific hierarchies in such a way that higher ranked constraints have total dominance over lower ranked constraints. The output candidate for an underlying form that best satisfies the constraints is the optimal or winning

candidate. A form is optimal in each of its pairwise competitions, if it better-satisfies the highest-ranking constraint which distinguishes it from its competitor (Prince 2002).

In OT, there is only one constraint (faithfulness) that cuts across all subdisciplinary domains. Faithfulness constraint says that input and output are identical. Like other models, this theory proposes an input and an output and a relation between the two. The relation between input and output is mediated by two formal mechanisms, GEN and EVAL. GEN (for Generator) creates linguistic objects and notes their faithfulness relations to the input under consideration. EVAL (for Evaluator) uses the language's constraint hierarchy to select the best candidate(s) for a given input from among the candidates produced by GEN. The constraint hierarchy for a language is its own particular ranking of CON, the universal set of constraints (Archangeli 1997:13). The GEN can add, delete and re-arrange things without restriction hence the candidate set created by GEN for any given input is infinite.

Optimality Theory has been shown to successfully account for a wide range of syntactic, morphological and phonological phenomena. It has also proved to be successful in Semantics. Because of this, it is hoped that OT semantics would also successfully account for idioms because it allows for the interaction of information from other perspectives. Blutner, Hendriks & de Hoop (2003: 3) state that 'connectionist approaches to language, such as OT provide the necessary tools to combine different pieces of information (from context, world knowledge, lexicon, syntax) in a precisely defined way'. This means that the information provided by the meaning of the lexical items or the syntactic structure can interact or even compete with information given by the context. This characteristic enables OT to give a better account of idiom interpretation.

There is a fundamental difference between the form of OT as used in phonology, morphology and syntax, on the one hand, and its form as used in semantics, on the other hand. Whereas in the former case OT takes the point of view of the speaker (production), in the latter case the point of view of the hearer is taken (comprehension perspective) (Blutner 2000).

The paper uses this 'three parameter': form, meaning and context optimization developed by Blutner (2000) to account for idiom interpretation in Chichewa. Blutner's optimization takes into consideration both the points of view of the speaker and of the hearer at the same time and integrates these perspectives. It

brings together aspects of semantics and pragmatics such as compositionality, the role of the speaker and hearer and the acquisition of meaning. The constraints that play a role in this optimization can be syntactic, phonological, pragmatic or semantic in nature. The constraints that apply are generally of the form: ‘if there is, use it, unless’. In this optimization, optimal meanings result from a compromise between competing constraints.

Optimality account of Chichewa idiom interpretation

OT and compositional idioms

This section shows how OT accounts for the interpretation of compositional idioms. There are two types of compositional idioms in Chichewa. The first type is the compositional idioms that have both literal meaning and idiomatic meaning. The second type is the compositional idioms that have idiomatic meaning only. The idioms in the second category cannot be interpreted literally (i.e. they are semantically anomalous when it comes to literal meaning interpretation).

OT and compositional idioms with literal meaning

The compositional idioms with literal meanings rely much on the information provided by the syntactic structure of the expression (literal meaning) for their idiomatic interpretation. For instance, the compositional idiom:

4. Taya madzi
‘lose water’

can be interpreted literally as ‘throw away water’ and can also be interpreted idiomatically as ‘urinate’. The two meanings of the expression *taya madzi* can be demonstrated as below:



These two meanings differ in terms of markedness. The first meaning ‘throw away water’ is unmarked (stereotypical) meaning/interpretation of the form *taya madzi* whereas ‘urinate’ is the marked (special/figurative) meaning of the form ‘*taya madzi*’. This means that the expression *taya madzi* has special (idiomatic) meaning and stereotypical (literal) meaning. These two meanings ‘throw away water’ and ‘urinate’ can both be interpreted compositionally. For

instance, if the expression *taya madzi* is uttered in a situation where someone is washing, it can compositionally be interpreted as 'throw away water' just because everyone knows that where there is washing there is water. But if the same expression *taya madzi* is uttered let us say along the way to some other place and someone excuses him/herself by saying *ndikufuna kutaya madzi* when there is obviously no water, it can compositionally be interpreted as 'urinate'. The meaning 'urinate' is idiomatic. For speakers to arrive at the idiomatic meaning 'urinate', they visualise an image of a container with water in it and then someone carrying the container of water and throwing away the contents. When water is thrown away, the person doing the throwing remains with the container. This means that it is only the content of the container that is thrown away. Now, in urinating, the person dispenses urine and not him/herself together with the urine. S/he remains behind. So, using the knowledge of throwing away water and urinating, speakers figuratively extend the word *madzi* in *taya madzi* to 'urine' since water and urine share some characteristics in that they are both liquid and that when it comes to getting rid of them, it is only water or urine that goes away. The container or the person does not go with it. In this way the compositional meaning 'throw away water' of the expression *taya madzi* is integrated with the image of throwing water that the speakers create in their mind. This is further integrated with the conduit metaphor¹ that speakers create using their world knowledge. Speakers look at water (liquid) which can only be contained in a bucket or container just like urine (liquid) which can only be contained in an individual (or some animal). So, adopting Lakoff's (1987) views on idiom interpretation, metaphorically, the container refers to an individual, water refers to urine and throwing refers to urinating. In this way, the conduit metaphor plus the created image enable speakers to compositionally interpret *taya madzi* as 'urinate' which is an idiomatic meaning. In this way the interpretation 'urinate' is seen as compositional (in Blutner, Hendriks & de Hoop (2003) view of compositionality) just like the interpretation 'throw away water'.

Much as the expression *taya madzi* is interpreted compositionally as 'throw away water' and 'urinate', it is the context that determines the type of interpretation. For instance, if the expression *taya madzi* is interpreted as 'urinate' in the situation where someone is washing, the form-meaning pair ⟨f, m'⟩ will be rejected. Similarly, if the expression *taya madzi* is interpreted as 'throw away water' along the way to some other place when there is obviously no water, the form-meaning pair ⟨f, m⟩ will be rejected. This means that the interpretation of the expression *taya madzi* has to be appropriate or relevant to a

Other things being equal, the greater the effort involved in the processing of a given piece of information, the smaller its relevance for the individual who processes it. (Wilson & Sperber 1988:140)

With this principle, the hearer assumes that the speaker has succeeded to be relevant so the hearer selects the most 'optimally relevant'² proposition (a combination of sense and reference) from all the propositions that the utterance could express. The hearer assumes that the optimally relevant proposition is the one intended by the speaker.

This *Principle of Relevance* is different from Grice's (1961,1989) maxim of relevance which is a qualitative condition in the notion of implicature (a non-conventional meaning recovered as an inductive inference) and it does not allow different interpretations to be compared with one another to see how far they are relevant. On the other hand, the relevance in this paper is Sperber & Wilson's relevance which replaces Grice's notion of implicature. This relevance is "a two-stage process in which the addressee recovers first an explicature- an inference or series of inferences which enrich the under-determined form of the utterance to a full propositional form, and then an implicature-an inference which provides the addressee with the most relevant interpretation of the utterance" (Grundy 2000:105).

Having gone through the *principle of relevance*, in this marked context, the interpretation 'die' of the expression *iba mphasa* is relevant in that it is in line with our world knowledge. Among most Malawian ethnic groups when a person dies, a mat made of reed *mphasa* is used. Culturally, the coffin containing the remains of the deceased is placed on *mphasa* or the corpse lies on the *mphasa* while awaiting burial. During burial this mat accompanies the remains of the deceased. Actually, the mat is placed in the grave first and then the coffin follows. It does not matter whether the deceased was rich or not, whether s/he had a mat or not but a mat has to accompany his/her remains. This is the case because traditionally there were no coffins. Coffins are a western innovation. Corpses were buried wrapped in *mphasa*. Even today if the coffin is not readily available, the corpse is buried wrapped in *mphasa*.

Considering the idiomatic meaning 'die', it is clear that the compositional meaning 'steal a mat' is figuratively extended to the act of dying in that in 'steal a mat', a mat is taken away without permission from the owner and

regardless of whether the owner has another mat or not just like as it culturally happens when someone dies.

This leaves us with two meanings of the form *iba mphase* the stereotypical meaning ‘steal a mat’ and the idiomatic meaning ‘die’. This suggests that *iba mphase* has two different forms the unmarked form (f) and the marked form (f') which are interpreted differently. The form (f) is interpreted as ‘steal a mat’ (unmarked meaning (m)) and the form (f') is interpreted as ‘die’ (a marked meaning (m')). In this case, it is the form meaning pairs ⟨f, m⟩ and ⟨f', m'⟩ that are relevant hence bidirectionally optimal. This discussion is summarised in the tableau (9). The constraint is on the top right. The top left-hand cell shows the input. Candidates show up in the leftmost column, with bidirectionally optimal candidates indicated by the symbol ∅. The optimal candidates are the ones with no violations. Violations are indicated by asterisks (*)

9.

iba mphase	RELEVANCE
∅ a. [steal a mat] (⟨f,m⟩)	
b. [die] (⟨f,m'⟩)	*
c. [steal a mat] (⟨f',m⟩)	*
∅ d. [die] (⟨f',m'⟩)	

Note: RELEVANCE short for the Principle of Relevance

As the tableau shows the form meaning pair ⟨f,m'⟩ is ruled out because the form is unmarked and the meaning is marked. The unmarked form cannot be given a marked meaning because they are used in different contexts and this makes the meaning ‘die’ irrelevant in the unmarked context thereby violating relevance principle. The form meaning pair ⟨f', m⟩ is also ruled out for the same reason. The meaning ‘steal a mat’ is irrelevant in a marked context. The tableau leaves us with two bidirectionally optimal form-meaning pairs (⟨f, m⟩ and ⟨f', m'⟩). This creates a problem because only one interpretation (the idiomatic meaning)

‘See back of the road/path’

The expression *ona nsana wanjira* has only one interpretation; the idiomatic interpretation. If we try to interpret *ona nsana wanjira* stereotypically we end up with an anomaly because our world knowledge tells us that a road/path does not have a back or a front. So the stereotypical meaning violates the principle called *Avoid Contradiction* which demands us not to produce contradictory utterances. This means that the interpretation ‘see the back of the road/path’ is ruled out by *Avoid Contradiction*. If the expression *ona msana wanjira* is interpreted idiomatically ‘go back/return’, the idiomatic meaning does not violate *Avoid Contradiction* because world knowledge tells us that when someone is going back/returning one (re)traces the route one used (assuming there is only one route). In this case the person sees the road s/he used when coming (i.e. can actually see her/his footprints). The part of the pathway that one actually sees is perceived as its back. In this sense the idiomatic meaning ‘go back/return’ can be viewed as compositional much as compositionally a stereotypical meaning does not exist. *Avoid contradiction* rules out the form meaning pairs $\langle f, m \rangle$ and $\langle f', m \rangle$ because they contradict with our world knowledge. On the other hand, form meaning pairs $\langle f, m' \rangle$ and $\langle f', m' \rangle$ are bidirectionally optimal because they do not contradict with our world knowledge.

Furthermore, the stereotypical meaning of the expression *ona msana wanjira* is not relevant in unmarked situation, therefore, it is not accepted hence the form meaning pair $\langle f, m \rangle$ violates the Relevance Principle. If the expression *ona msana wanjira* is interpreted as ‘see the back of the road’ in a marked context, it is also not accepted because only marked meanings and marked forms are used in marked situations. So, the form meaning pair $\langle f', m \rangle$ violates relevance principle. Similarly, if the expression *ona msana wanjira* is idiomatically interpreted as ‘go back/return’ in unmarked context the meaning ‘go back/return’ is ruled out hence the form meaning pair $\langle f, m' \rangle$ violates relevance principle. If the same interpretation is given in a marked context the meaning ‘go back/return’ is accepted hence the form meaning pair $\langle f', m' \rangle$ satisfies relevance principle. This means that relevance principle leaves us with one form meaning pair $\langle f', m' \rangle$ that is bidirectionally optimal. *Avoid contradiction* left us with two bidirectionally form meaning pairs $\langle f, m' \rangle$ and $\langle f', m' \rangle$ but relevance principle rules out $\langle f, m' \rangle$ and leaves us with $\langle f', m' \rangle$ as a bidirectionally optimal form meaning pair.

In Chichewa the two constraints can be said to be ranked as follows:

Relevance Principle >> Avoid Contradiction

The discussion of the idiom *ona msana wanjira* is summarised in Tableau (12) below. The constraints are ranked across the top, going from highest ranked on the left to lowest ranked on the right.

12.

ona msana wanjira	RELEVANCE	AVOID C
h. [see the back of the Road] ((f,m))	*	*
b. [go back/return] ((f,m'))	*	
c. [see the back of the road/path] ((f',m))	*	*
✎ d. [go back/return] ((f',m'))		

Note: AVOID C short for the constraint Avoid Contradiction

As the tableau shows the form-meaning pair ⟨f', m'⟩ is a bidirectionally optimal candidate because it satisfies both Relevance Principle and Avoid Contradiction. Form meaning pairs ⟨f, m⟩ and ⟨f', m⟩ are ruled out because they violate both constraints Relevance Principle and Avoid Contradiction. The form meaning pair ⟨f, m'⟩ satisfies Avoid Contradiction and violates Relevance Principle. It is ruled out because it satisfies a low ranked constraint (Avoid Contradiction) and it violates a high ranked constraint (Relevance Principle). So Relevance Principle rules it out.

Another idiom that behaves like *ona nsana wanjira* is the expression:

13. lemba m'madzi

‘write in water’

This expression too can only be interpreted idiomatically. If the expression *lemba m'madzi* is stereotypically interpreted, it violates *Avoid Contradiction*. This is the case because it is not possible to write in water so the interpretation ‘write in water’ contradicts our world knowledge. But if the expression *lemba m'madzi* is idiomatically interpreted ‘suffer for nothing’ it does not contradict our world knowledge. This is the case because when someone tries to write in water, no matter how much effort s/he puts in will not succeed. S/he will just waste her/his energy (i.e. s/he will just suffer for nothing). So the compositional meaning of the expression *lemba m'madzi* is figuratively extended to a state of suffering but for nothing. In this sense the meaning of the idiom *lemba m'madzi* can be considered as compositional.

Furthermore, the idiomatic meaning ‘suffer for nothing’ is relevant because it is not possible to write in water. If one tries to do the impossible thing one just wastes one’s energy and time. This means that the form meaning pair ⟨f, m'⟩ satisfies the Relevance Principle. On the other hand, the literal meaning ‘write in water’ is irrelevant for the same reason that it is not possible to write in water.

Another idiom that behaves like the idioms above is *tsala madzi amodzi*. This idiom too does not have a literal meaning. But it differs from the other two idioms in that it has two idiomatic meanings. The idiom *tsala madzi amodzi* can be interpreted as ‘be about to die’ or ‘be about to be caught’. If the expression *tsala madzi amodzi* is stereotypically interpreted, it also violates *Avoid Contradiction*. This is the case because it is not possible to count water so the literal/stereotypical interpretation ‘remain one water’ contradicts our world knowledge. But if this expression is idiomatically interpreted as ‘be about to die’ or ‘be about to be caught’ it does not contradict our world knowledge. This is the case because when speakers hear this expression, they visualise a bucket/basin containing very little water in it. If this water goes away (let us say evaporates) then no water will remain in the bucket/basin since there is already very little of it. With this picture in mind and the knowledge that speakers have that water is a source of life as it is said that ‘water is life’, speakers quickly arrive at the meaning ‘be about to die’. In this case speakers equate life and water hence the meaning ‘be about to die’ does not contradict our world knowledge. Similarly, the idiomatic meaning ‘be about to be caught’ does not contradict our world knowledge just because speakers figuratively extend the

word 'water' in the idiomatic expression *tsala madzi amodzi* to 'chance'. So speakers understand very little water as very little chance and that if that goes then no other chance will remain. If all the chances are gone then one is in trouble. In this way the interpretation 'be about to be caught' does not contradict our world knowledge.

As has been demonstrated, the idiomatic expression *tsala madzi amodzi* is associated with two idiomatic meanings. This creates a problem because one can ask the question 'when does one use 'be about to be caught' or 'be about to die'?' This question is easily taken care of by context. The context determines which interpretation is appropriate (i.e. the interpretation that will be relevant to a particular context will be adopted).

There are other phrase idioms that are also interpreted in the same manner but are interesting in that their idiomatic meaning is mainly triggered by their ungrammaticalness. Such idiomatic expressions include:

14. *mphemvu mdyerakumthiko* (a poor person)
'cockroach the eater from a cooking stick'

The expression *mphemvu mdyerakumthiko* cannot be literally interpreted just like the other idioms discussed in this section. This is the case because the expression *mphemvu mdyerakumthiko* has the syntactic structure (noun + noun) which violates complement selection rule in Chichewa. Chichewa nouns do not take nouns as their complements but in this expression the noun *mphemvu* takes a noun *mdyerakumthiko* as its complement. This type of complement selection makes the expression *mphemvu mdyerakumthiko* to be syntactically ill-formed. The ill-formedness of the expression *mphemvu mdyerakumthiko* triggers the idiomatic interpretation 'a poor person'. This does not only happen with Chichewa idioms, Kiango (2003) observes the same with Kiswahili idioms. So, it can be said that the syntactic structure 'noun + noun' forces hearers to interpret the expression *mphemvu mdyerakumthiko* idiomatically as 'a poor person'

The idiomatic meaning of the expression *mphemvu mdyerakumthiko* is compositional in nature although the expression cannot be interpreted literally. Speakers use meanings of the individual words in the expression to compute the idiomatic meaning 'a poor person'. When speakers hear the expression *mphemvu mdyerakumthiko* they use meanings of the words *mphemvu* and

mdyerakumthiko to create an image of a cockroach eating from a cooking stick just because it has no plates to eat from. Speakers know that cockroaches do not cook and do not have cooking utensils but they eat remains of foodstuff prepared by human beings (if cockroaches are in a house). Malawians use cooking sticks *mathiko* to prepare their meals and if the cooking stick is left uncleaned cockroaches come to eat the remains on the cooking stick. Cockroaches do not remove the foodstuff from the cooking stick to the plate because they do not have plates (i.e. are too poor to own a plate). So, speakers metaphorically equate 'cockroach' to a person and the description of *mdyerakumthiko* to the degree of poverty. In this way speakers integrate the created conventional image of a cockroach eating from a cooking stick with the metaphor which provide a link between the idiom and its meaning. In this way speakers arrive at the idiomatic meaning 'a poor person'.

Here a syntactic condition 'well-formedness' can be used to account for the interpretation of the idiomatic expression *mphemvu mdyerakumthiko*. Well-formedness is a syntactic condition that requires structures to satisfy the syntactic rules.

If one interpretes the expression *mphemvu mdyerakumthiko* literally as 'a cockroach that eats from a cooking stick', the meaning is ruled out because the form meaning pair $\langle f, m \rangle$ violates syntactic *Well-formedness Condition*. Furthermore, the form meaning pair $\langle f, m \rangle$ violates *Relevance Principle* because the meaning 'a cockroach that eats from a cooking stick' is not relevant in unmarked situation where it is supposed to be relevant hence *Relevance Principle* rules it out. This is the case because it is not normal for cockroaches to eat from a cooking stick although they do so, it is done secretly and usually at night when its dark. Once lights are on, all cockroaches run to hide. In addition, the scenario where we have cockroaches eating from a cooking stick happens when one is not hygienic enough. If the expression *mphemvu mdyerakumthiko* is interpreted idiomatically as 'a poor person' the form meaning pair $\langle f', m' \rangle$ is also ruled out by *Well-formedness Condition*. However, the meaning 'a poor person' is relevant in a marked context. This makes the form meaning pair $\langle f', m' \rangle$ satisfy the *Relevance Principle* which makes it a bidirectionally optimal candidate.

In Chichewa the two constraints *Well-formedness Condition* and *Relevance Principle* can be said to be ranked as follows:

Relevance Principle >> Well-formedness Condition

The discussion of the idiomatic expression *mphemvu mdyerakumthiko* is summarised in Tableau (15) below. The candidate with minimal violations is the bidirectionally optimal candidate.

15.

Mphemvu mdyerakumthiko	RELEVANCE	WELLFORMED
h. [a cockroach that eats from a cooking stick] (⟨f,m⟩)	*	*
i. [a poor person] (⟨f,m'⟩)	*	*
c. [a cockroach that eats from a cooking stick] (⟨f,m⟩)	*	*
☺ d. [a poor person] (⟨f,m'⟩)		*

Note: WELLFORMED for a syntactic well-formedness condition

As the tableau shows, only one form-meaning pair ⟨f, m'⟩ is bidirectionally optimal because it satisfies *Relevance Principle* (a highly ranked constraint) which makes it bidirectionally optimal even though *Well-formedness Condition* (a low ranked constraint) rules it out. The other form meaning pairs are ruled out because they violate both constraints.

16. Khala maso (be alert)

'be eyes'

is interpreted in the same way as the noun phrase discussed above. The expression *khala maso* has the syntactic structure 'verb + noun' in which the verb *khala* is an intransitive verb that does not call for a direct object. Now, looking at the expression *khala maso* one notes that the verb *khala* takes a direct object *maso*. This violates complement selection rule for the verb *khala*. The verb *khala* can take a locative phrase or an adverbial phrase as its complement but not a noun phrase. Because the verb *khala* takes a noun *maso* as its complement, this complement selection makes the expression *khala maso* to be syntactically ill-formed. The ill-formedness of the expression *khala maso* triggers the idiomatic interpretation 'be alert' of the expression *khala maso*.

When the expression *khala maso* is interpreted literally as 'be the eyes', the literal meaning 'be the eyes' is ruled out because the form meaning pair ⟨f, m⟩ violates well-formedness condition. Furthermore, the literal meaning 'be the eyes' contradicts our world knowledge because one cannot be the eyes hence the form meaning pair ⟨f, m⟩ violates Avoid contradiction as a result it is ruled out. When the expression *khala maso* is uttered in unmarked context the interpretation 'be the eyes' is also ruled out because in this context it is not relevant hence the form meaning pair ⟨f, m⟩ violates Relevance Principle. If the expression *khala maso* is idiomatically interpreted as 'be alert' the form meaning pair ⟨f', m'⟩ is ruled out because it also violates Well-formedness Condition. On the other hand, if the expression *khala maso* is idiomatically interpreted the meaning 'be alert' is accepted because the form meaning pairs ⟨f, m'⟩ and ⟨f', m'⟩ satisfy Avoid Contradiction. Furthermore, if the expression *khala maso* is idiomatically interpreted in a marked context only the form meaning pair ⟨f', m'⟩ is accepted because it satisfies Relevance Principle thereby being bidirectionally optimal candidate.

The constraints *Well-formedness*, *Avoid Contradiction* and *Relevance Principle* can be said to be ranked as follows:

Relevance Principle >> Avoid Contradiction >> Well-formedness Condition

The idioms *ona msana wanjira*, *lemba m'madzi*, *tsala madzi amodzi*, *mphemvu mdyerakumthiko* and *khala maso* suggest that the expressions need not to have a stereotypical meaning for them to be idiomatically interpreted.

expected for both the speaker and the hearer, the form meaning pair ⟨f, m⟩ satisfies both the S Principle and the H Principle (i.e. the form meaning pair ⟨f, m⟩ is optimal for both the speaker and the hearer). If the form *dzala chinangwa* is uttered in unmarked context and it is interpreted as ‘die’ (m’), the meaning ‘die’ is optimal for the hearer but it is not accepted by the speaker because it is not optimal for him/her and the form *dzala chinangwa* (f) is optimal for the speaker but it is not optimal for the hearer. This makes the form meaning pair ⟨f, m’) to be ruled out by H Principle. On the other hand, if the form *dzala chinangwa* (f’) is uttered in a marked context, the meaning ‘die’ (m’) is optimal for both the speaker and the hearer. This makes the form meaning pair ⟨f’, m’) satisfy both S Principle and H Principle. If the form *dzala chinangwa* (f’) is interpreted as ‘plant cassava’, the meaning ‘plant cassava’ is optimal for the hearer but not for the speaker. In this case the form meaning pair ⟨f’, m) is ruled out by S Principle. This means that S Principle rules out only one form meaning pair ((f’, m)) thereby making the other three form meaning pairs ((f, m), ⟨f, m’) and ⟨f’, m’)) optimal. On the other hand, the H Principle rules out only form meaning pair ⟨f, m’) thereby making the other three form meaning pairs ((f, m), ⟨f’, m) and ⟨f’, m’)) optimal.

When the Relevance Principle is employed to account for the interpretation of the expression *dzala chinangwa* the results are different from what S and H Principles give us. For instance, if this expression is uttered in an unmarked situation it is interpreted as ‘plant cassava’ and this is relevant in that context/situation. If the same expression is uttered in a marked situation/context then the meaning ‘plant cassava’ becomes irrelevant. The meaning ‘die’ has to be considered relevant in this context which is a marked meaning (idiomatic meaning) but looking critically at ‘die’ one notes that it is not relevant much as a marked expression has to have a marked interpretation/meaning. Unlike the interpretation ‘die’ of the expression *iba mphasa* which is in line with our cultural knowledge, the interpretation ‘die’ of *dzala chinangwa* is not in line with our world knowledge (i.e., is not relevant as far as our world knowledge is concerned). One cannot equate *dzala chinangwa* with the meaning ‘die’. In other words, the meaning ‘die’ does not rely on the stereotypical meaning ‘plant cassava’ of the expression *dzala chinangwa*. If we compare the act of planting cassava and dying, one notes that these do not relate, in any way. When planting cassava, what is planted is a stem cutting and only part of it is buried. The remainder is exposed outside. If the whole stem cutting is buried, it dies (i.e., does not grow). On the other hand, when a person dies, his/her remains are buried six feet deep into the ground. No part is left unburied. So if one tries to

equate the act of planting cassava with the act of dying especially burial, one ends up with a contradiction hence the interpretation 'die' of the expression *dzala chinangwa* is irrelevant. In this way, the form meaning pairs ⟨f', m⟩, ⟨f, m'⟩ and ⟨f', m'⟩ violate the *Relevance Principle* hence they are ruled out. So, the *Relevance Principle* leaves us with only one bidirectionally optimal form meaning pair ⟨f, m⟩.

In Chichewa, the constraints S Principle, H Principle and the Relevance Principle can be said to be ranked as follows:

Relevance Principle >> S Principle and H Principle

The discussion of the expression *dzala chinangwa* is summarised in Tableau (18) below:

18.

dzala' chinangwa	RELEVANCE	H PRINCIPLE S PRINCIPLE
☞ a. [plant cassava] ((f,m))		
b. [die] ((f,m'))	*	*
c. [plant cassava] ((f',m))	*	*
d. [die] ((f',m'))	*	

As the tableau shows, there is only one form-meaning pair ⟨f, m⟩ that is bidirectionally optimal because it does not violate any constraint. The form meaning pair ⟨f, m'⟩ is ruled out because it violates the *S Principle* as well as the *Relevance Principle* and the form meaning pair ⟨f', m⟩ is ruled out because it violates the *H Principle* as well as the *Relevance Principle*. On the other hand, the form meaning pair ⟨f', m'⟩ satisfies the *S and H Principles* but violates *Relevance Principle* (a highly ranked constraint) as a result *Relevance Principle* rules it out. But if we apply the meta-linguistic constraint that acts as a block mechanism termed *BLOCK by Beaver & Lee (2003) we get different results

(i.e., we end up having two bidirectionally optimal form-meaning pairs). Beaver (2004: 39) defines *BLOCK as:

A form-meaning pair may not be dominated by a bidirectionally optimal candidate in either direction of optimisation in the tableau consisting of all constraints except *BLOCK.

*BLOCK blocks $\langle f', m \rangle$ and $\langle f, m' \rangle$ hence remaining with two optimal form-meaning pairs ($\langle f, m \rangle$ and $\langle f', m' \rangle$). This gives us both stereotypical and special meanings of the expression *dzala chinangwa*.

With the introduction of *BLOCK the constraints in Chichewa can be said to be ranked as:

*BLOCK >> Relevance Principle >> S Principle and H Principle

The analysis of the expression *dzala chinangwa* is summarised in Tableau (19) below:

19.

dzala chinangwa	*BLOCK	RELEVANCE	H PRINCIPLE S PRINCIPLE
☞ a. [plant cassava] ($\langle f, m \rangle$)			
b. [die] ($\langle f, m' \rangle$)	*	*	*
c. [plant cassava] ($\langle f', m \rangle$)	*	*	*
☞ d. [die] ($\langle f', m' \rangle$)		*	

The tableau shows that two form meaning pairs $\langle f, m \rangle$ and $\langle f', m' \rangle$ are bidirectionally optimal. The form meaning pair $\langle f, m \rangle$ is bidirectionally optimal because it does not violate any constraint. On the other hand, the form meaning pair $\langle f', m' \rangle$ violates the *Relevance Principle* which rules it out but it satisfies *BLOCK a highly ranked constraint⁴ than the Principle of Relevance hence *BLOCK makes it a bidirectionally optimal candidate. The form meaning pairs $\langle f', m \rangle$ and $\langle f, m' \rangle$ are ruled out because they have the highest violations.

Another idiom that behaves like *dzala chinangwa* is

20. galu wakuda
 'dog black'

The expression *galu wakuda* can be interpreted stereotypically as 'a black dog' and idiomatically 'famine'. Just like in *dzala chinangwa*, we cannot equate the interpretation 'famine' with *galu wakuda*. 'Famine' is a state of lacking food whereas *galu wakuda* is a domesticated animal used as pet and for security. So the interpretation 'famine' to the marked expression *galu wakuda* is irrelevant and the form meaning pair ⟨f', m'⟩ violates the *Relevant Principle* hence it rules out this form meaning pair. There is no link between the interpretation 'famine' and the interpretation *galu wakuda* (i.e. the interpretation 'famine' does not depend on the interpretation 'a black dog'). The form-meaning pairs ⟨f, m'⟩ and ⟨f', m⟩ also violate the *Relevance Principle* and are ruled out. Even *BLOCK rules out the form meaning pairs ⟨f, m'⟩ and ⟨f', m⟩ but it makes the form meaning pair ⟨f', m'⟩ bidirectionally optimal.

The idioms *dzala chinangwa*, and *galu wakuda* demonstrate that form-meaning pairs ⟨f', m'⟩ do not have to satisfy the *Principle of Relevance* for us to interpret them idiomatically. As long as they satisfy *BLOCK they are bidirectionally optimal since *BLOCK is highly ranked constraint. So the existence of the idiomatic meaning blocks the stereotypical meaning.

OT and non-compositional idioms without literal meaning

These are non-compositional idioms that cannot be literally interpreted and the words forming up the idiom do not play a role in the idiomatic interpretation of the idiomatic expressions. An example of such idioms is the following:

21. kupha phala (drink too much)
 to kill porridge

This idiom has the idiomatic meaning only. It cannot be literally interpreted because it is semantically ill-formed. This expression has the syntactic structure verb + noun and it is syntactically well-formed because the verb *kupha* takes a noun *phala* as its complement. However, this complement selection violates

complement selection rule for the verb *kupha*. The verb *kupha* can only take a noun that is animate (i.e. specifically a living animal/person). The noun *phala* that *kupha* takes as its complement is devoid of life hence violating the complement selection rule for verb *kupha*. This complement selection leaves us with an expression that is semantically ill-formed. The ill-formedness of this expression triggers the idiomatic interpretation of the expression. If the literal meaning 'to kill porridge' is forced on this expression, it violates *Well-formedness Condition* (in terms of semantics) hence the form meaning pair ⟨f, m⟩ is ruled out. Similarly, if the expression *kupha phala* is idiomatically interpreted as 'to drink too much', the form meaning pair ⟨f, m'⟩ violates *Well-formedness Condition* which rules it out.

Furthermore, if the expression *kupha phala* is interpreted literally as 'to kill porridge' the form-meaning pair ⟨f, m⟩ contradicts our world knowledge because our world knowledge tells us that only living things can be killed and porridge is not a living thing so it is not possible to kill it. In this way the form-meaning pair ⟨f, m⟩ violates *Avoid Contradiction* and hence it is ruled out. If the expression is uttered in unmarked environment the form-meaning pair ⟨f, m⟩ also violates the *Principle of Relevance* because the interpretation 'to kill porridge' is not relevant in the mentioned context. On the other hand, if the expression *kupha phala* is interpreted as 'to kill porridge' in a marked context the meaning 'to kill porridge' is irrelevant hence the form meaning pair ⟨f, m⟩ violates *Principle of Relevance* which rules it out. If the expression *kupha phala* is idiomatically interpreted as 'to drink too much' in unmarked context the meaning 'to drink too much' becomes irrelevant as a result the form meaning pair ⟨f, m'⟩ violates the *Principle of Relevance* which rules it out. If the expression *kupha phala* is idiomatically interpreted as 'to drink too much' in a marked context the meaning 'to drink too much' is irrelevant because it also contradicts with our world knowledge. This makes the form meaning pair ⟨f, m'⟩ violate the *Principle of Relevance* which rules it out. There is no relationship between *kupha phala* and 'to drink too much' much as one can equate *phala* with 'beer' (local beer made of maize flour and millet flour) because they are both made from maize flour and are both liquids. But when it comes to 'kill' one cannot equate 'kill' to 'drink' because semantically they are unrelated. So, one fails to see the relevance of the meaning 'to drink too much' although it is uttered in a marked context.

The discussion of the expression *kupha phala* shows that no form meaning pair is bidirectionally optimal. All form meaning pairs ⟨f, m⟩, ⟨f, m'⟩ and ⟨f,

m') have been ruled out by the *Well-formedness Condition*, *Relevance Principle* and *Avoid Contradiction*. However, *BLOCK a highly ranked constraint makes the form meaning pair ⟨f', m'⟩ bidirectionally optimal even though it has been ruled out by the other constraints. In this case, we only have one form meaning pair that is bidirectionally optimal. This discussion is summarised in Tableau (22) below:

22.

Kupha phala	*BLOCK	RELEVANCE	AVOID C	WELLFORMED
a. [to kill porridge] ((f,m))	*	*	*	*
b. [to drink too much] ((f,m'))	*	*	*	*
c. [to kill porridge] ((f',m))	*	*	*	*
☞ d. [to drink too much] ((f',m'))		*	*	*

As the tableau shows, only one form-meaning pair ⟨f', m'⟩ is bidirectionally optimal. This is the case because although this form meaning pair violates the other three constraints it satisfies *BLOCK a highly ranked constraint hence *BLOCK makes it bidirectionally optimal. The other form meaning pairs have been ruled out because they have the highest number of violations and they also fail to satisfy *BLOCK a highly ranked constraint.

Another idiomatic expression that is interpreted like *kupha phala* is the expression

23. Kugwa chauta (occurrence of death)
to fall God

This expression, too, is ill-formed because the verb *kugwa* takes a noun *chauta* as its complement. This type of complement selection violates complement selection rule for the verb *kugwa*. The verb *kugwa* is supposed to take a locative phrase or an adverbial phrase as its complement and not a noun. This type of complement selection makes the expression '*kugwa chauta*' ill-formed. The ill-formedness of the expression *kugwa Chauta* makes the form meaning pairs ⟨f, m⟩ and ⟨f', m'⟩ violate the *Well-formedness Condition* hence rules it out. Furthermore, if the literal meaning 'to fall god' is forced on the expression *kugwa chauta* it contradicts our world knowledge because no body sees god as to make him fall (i.e. god is a spirit and cannot fall). So, the form meaning pair ⟨f, m⟩ violates *Avoid Contradiction* hence it is ruled out. On the other hand, if the expression *kugwa chauta* is idiomatically interpreted the meaning 'occurrence of death' also contradicts our world knowledge. So, the form meaning pair ⟨f', m'⟩ also violate *Avoid Contradiction* hence it rules it out. Even the *Relevance Principle* rules out this form meaning pair. However, The form meaning pair ⟨f', m'⟩ is the only form meaning pair that satisfy *BLOCK a highly ranked constraint hence makes it bidirectionally optimal. This leaves us with the idiomatic interpretation only.

There is another expression that is also interesting. The expression

24. *Zoda* *mutu* (problems)
 'those that head'
 'are black/ dirty'

is an adjectival phrase. This phrasal idiom has the syntactic structure adjective + noun. The adjective *zoda* takes a noun *mutu* as its complement. This complement selection does not violate complement selection rule for the adjective *zoda* because this adjective is supposed to take a noun as its complement and in the expression *zoda mutu* we see it taking a noun *mutu* as its complement. Although the adjective *zoda* takes a noun as its complement, it is syntactically ill-formed. The adjective *zoda* does not agree with the noun *mutu* because *zoda* is plural in number and *mutu* is singular. However, Chichewa being a pro-drop language, we understand *zoda* as coming after a noun phrase. So, if we put the noun *zinthu* (things) in the subject position then the expression *zoda mutu* is no longer ungrammatical because in this case *zoda* is the complement of the noun *zinthu* and it actually qualifies this noun *zinthu*. Much as *zoda* can be understood as coming after a noun phrase, the expression *zoda mutu* is still ungrammatical the way it is. Failure to agree in terms of number

makes the expression *zoda mutu* ill-formed. The ill-formedness of this expression makes the form meaning pairs $\langle f, m \rangle$ and $\langle f', m' \rangle$ violate the *Well-formedness Condition*.

If one forces the literal interpretation 'those that are black headed' on the expression *zoda mutu*, the form meaning pair $\langle f, m \rangle$ violates a syntactic *Well-formedness Condition* in terms of agreement but also violates the *Relevance Principle* because the meaning 'those that are black headed' is irrelevant. On the other hand, if the expression *zoda mutu* is idiomatically interpreted as 'problems' in a marked context the meaning is irrelevant because there is no relationship between blackness or dirtiness of something and problems. In this way, the form meaning pair $\langle f', m' \rangle$ is ruled out because it violates the *Relevance Principle*. So, in this case no form meaning pair has been considered bidirectionally optimal because all the form meaning pairs violate both constraints, the *Principle of Relevance* and the *Well-formedness Condition*. Although this is the case, *BLOCK a highly ranked constraint makes the form meaning pair $\langle f', m' \rangle$ bidirectionally optimal. In this case we end up with one form meaning pair $\langle f', m' \rangle$ that is bidirectionally optimal.

Conclusion

The paper has proposed that idioms are processed like any other literal expression. This means that idioms are not processed in any other special way. In this way OT partly supports the 'Configuration hypothesis and phrase-induced polysemy model' However, it differs from the 'Configuration hypothesis and phrase-induced polysemy model' in that in OT the idiomatic and literal meanings compete and the winning candidate is preferred.

OT suggests that idioms are retrieved and that non-compositional idioms are learnt like lexical items in that one just has to know that the idiom means what it means. OT supports Vega- Moreno's (2001a) claim that idiomatic meaning is retrieved following considerations of relevance. This suggests that context plays a crucial role in the interpretation of idioms. However, this does not apply to all idioms. Some idioms that are non-compositional in nature need not be relevant to a particular situation for them to be interpreted idiomatically.

Notes

1. Conduit metaphor is a metaphor that presents ideas as objects.
2. Optimal relevance is defined as: An ostensive stimulus is optimally relevant to an audience iff:

- h. It is relevant enough to be worth the audience's processing effort;
 - i. It is the most relevant one compatible with communicator's abilities and preferences (Wilson & Sperber, 2004).
3. Cost is defined as 'the *complexity* of the forms and the *conditional informativity* of the meanings. The cost of form-meaning pair $\langle f, m \rangle$, $c(\langle f, m \rangle)$, is then $\text{compl}(f) \times \text{inf}(m/[f])$, where $\text{compl}(f)$ measures the complexity of form f ; $[f]$ is the 'semantic' meaning of f ; and $\text{inf}(m/[f])$ measures the surprise that m holds when f is true' (van Rooy 2003:2).
 4. It does not mean that *block is always highly ranked. It can be out ranked by other constraints.

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