

Etymological Elaboration As A Pedagogical Approach: Insights From Applied Linguistics

Moses Gatambuki Gathigia

PhD, Coordinator, Nairobi Campus
Karatina University, Karatina, Kenya

Abstract: Idioms are regarded as problematic to teach and, a fortiori, difficult for second language learners to comprehend due to the arbitrariness of their meanings and forms. Thus, the objective of this study is to test the efficacy of etymological elaboration and the teacher descriptive approach to the teaching and learning of English idioms in second language contexts. To achieve this objective, 30 purposively sampled English idioms were gathered from the Macmillan English Dictionary (2007 edition) and the Oxford Advanced Learner's Dictionary (2010 edition). The study was conducted using a pretest / posttest paradigm. Two Form three classes were sampled for this study. A pretest on the 30 English idioms was administered, marked and results recorded. Learners in the experimental class were taught using etymological elaboration approach while those in the control class were taught using the teacher descriptive approach. A posttest was given to the participants in the same format as the pretest. The scores recorded in both tests were analyzed quantitatively using the Levene's Test for Equality of Variances. The study noted that the teaching of English idioms using etymological elaboration approach facilitates learners' retention and comprehension of idioms. The study concludes that the etymological elaboration approach is an effective strategy of teaching English idioms. The paper proposes recommendations for pedagogy of English idioms for learners of English as the second language in Kenya and beyond.

Keywords: English idioms, pretest, posttest, etymological elaboration, teacher descriptive approach

I. INTRODUCTION

There is no unanimity as to the precise definition of idioms. Cooper (1999), for example, posits that idioms are a type of multi-word units that have non-literal meaning while Moon (1998) claims that an idiom denotes a general term for many kinds of multi-word expressions "whether semantically opaque or not" (p.4). Linguists have also attempted to categorize idioms. Fernando (1996), for instance, classifies idioms into three categories: *pure idioms*, *semi literal idioms* and *literal idioms*, while Makkai (1972) classifies idioms into *lexemic idioms* and *sememic idioms*. In this paper, a synthesized definition from the various conceptualizations of an idiom that abound in literature has been coined, that is, an idiom is a group of words that co-occur in more or less fixed phrase and whose meaning cannot be predicted by analyzing the meaning of its components.

Idioms play a pivotal role in the foundation and comprehension of every language since they are among other things, indicators of one's fluency in a particular language (Prodromou, 2003; Simpson & Mendis, 2003). However, since the figurative meaning of an idiom is difficult to predict from its literal meaning, they present "special difficulty to L2 learners, as well as a never-ending challenge for ESL teachers" (Cooper, 1999, p.233). Liu (2003, p.671), for example, argues that idioms have rather rigid structures, have unpredictable meanings and that they are "a notoriously difficult" but at the same time a very useful aspect of English for language learners. Similarly, Strakšiene (2009) opines:

Idioms are considered to be one of the hardest and most interesting parts of the English vocabulary. On the one hand, they are considered one of the most peculiar parts of the language; on the other hand, they are difficult because of their unpredictable meaning and grammar (p.13).

From the above quotation, idioms, thus, require special attention in language teaching as they have been noted to be a challenge to both teachers and learners of English (Boers, 2000; Cooper, 1999). However, although idioms have received considerable attention in language pedagogy (Bagheri & Fazel, 2010; Kövecses & Szabó 1996; Cooper, 1999), idioms teaching still continue to be pose myriad problems because of their arbitrary meaning (Gibbs, 1994). This is because learners are left to memorize chunks of language that, unless practised frequently, will soon be forgotten (Gibbs et al., 1997; Boers, 2000). Unfortunately, “many second-language materials either ignore idioms entirely or relegate them to the ‘other expressions’ section of vocabulary lists, without providing exercises or other aids to learning” (Irujo, 1986, p. 237). Equally, teachers, too, ignore the teaching of idioms.

The role of the teacher in reducing the learning burden of the learners is essential. Instead of fostering learning idioms by memorization, for example, the teacher should employ a learning strategy that would enhance comprehension and retention of English idioms. This is a gap in the literature especially when we look at English as “the world’s international language” (Richard, 2008, p. 1). Further, few studies have focussed on the nexus between pedagogy and performance of English idioms by second language learners and especially those who are in the outer circle of English users as categorized by Kachru (1985). Although various techniques are known to be beneficial to retention of idioms in outer circle contexts (for example, Carter & McCarthy, 1988; McCarthy, 1990; Schmitt & McCarthy, 1997), however, this study looks at the effectiveness of both etymological elaboration and the teacher descriptive method in the teaching of English idioms.

II. THEORETICAL PERSPECTIVES OF THE STUDY

On the one hand, etymological elaboration is an approach that helps second language learners to comprehend and remember figurative idioms by raising their awareness of the literal origins or source domains of those idioms (Boers, Demecheleer & Eyckmans, 2004). According to Boers et al. (2007), “etymological association is likely to call up a mental image of a concrete scene which can be stored in memory alongside the verbal form” (p. 43), and this pairing can in turn enhance learning by providing an extra pathway for recall” (Boers, Eyckmans & Stengers, 2007).

On the other hand, the teacher descriptive approach has the teacher taking an active role while the learners are passive participants in the teaching and learning process. In this theoretical perspective, the teacher is placed firmly in charge of the teaching context. Further, the teacher descriptive approach maintains teacher’s professionalism and lends itself neatly to accountability since the teacher is the centre of the learning process. Thus, as noted in Section 3.3 of this paper, the researcher introduced the English idioms and their meanings without looking at their etymology. It is against this backdrop that this paper sought to examine the effect of etymological elaboration and the teacher descriptive approach

on learners' comprehension as well as retention of English idioms.

III. RESEARCH METHODOLOGY

A. RESEARCH DESIGN

This is an action research study in which two approaches: the etymological elaboration approach and the teacher descriptive approach are applied to an existing classroom system in a Form Three Kenyan secondary school to examine the teaching and learning of English idioms in a second language context. The study examines the relationship between an independent variable (the teaching of English idioms and the linguistic dependent variable (the performance of learners in English idioms). This research employs a pretest / posttest paradigm.

B. STUDY LOCALE AND SAMPLE SIZE

Ngorano High School in Nyeri County, Kenya, was purposively sampled for this study. To achieve the objective of the study, data were collected from Form three learners of English as a second language. The learners were divided into experimental and control groups. The experimental cohort was exposed to the teaching of English idioms using etymological elaboration while the control cohort was exposed to the teacher descriptive approach towards the teaching of English idioms. The experimental cohort had a sample of 31 learners. Similarly, the control cohort had a sample of 31 learners.

C. DATA COLLECTION PROCEDURES & METHODS FOR QUANTIFYING THE LINGUISTIC DEPENDENT VARIABLES

The following selection criteria were used in the selection of the idioms for this study: first, the English idioms selected were non-compositional in nature; second, the English idioms contained lexical components likely to be unfamiliar to the learners. Third, the English idioms were gathered manually from the Macmillan English Dictionary (2007 edition), Oxford Advanced Learner’s Dictionary (2010 edition) and the internet. Then, after collecting 50 English idioms (cf. Appendix A), purposive sampling was employed to select 30 that the researchers deemed the most appropriate for the teaching of English idioms. A pretest on the 30 English idioms was administered by the researchers on the first day to the two Form three classes (cf. Appendix B). The pretest comprised a matching task between the idiom and their meaning. The pretest was marked and scores entered. On the second day, the researchers introduced the English idioms to the experimental class, using the etymological elaboration approach for a period of 40 minutes. That is, each idiom was presented, followed by an explanation regarding its etymology. The learners were then asked to write the meaning of the idioms in their own words in English. This explanation was meant to test their comprehension of the idioms. For the control class, the teacher descriptive approach was employed for a period of 40 minutes. The researcher took an active role in the teaching

process by defining the idioms without looking at the etymology of the English idioms. A posttest, the same test administered as a pretest, was given to the two classes during the third day. This posttest was intended to measure the retention of the taught idioms. A marking scheme is designed by the researchers (cf. Appendix C). The researchers scored the posttests (cf. Appendices D & E) and generated quantitative data which have been analyzed for comparison.

D. DATA PRESENTATION AND ANALYSIS

Quantitative data were analyzed using the Statistical Package for Social Sciences (SPSS). After the last session of treatment, their scores were added up and a *t*-test was conducted to see whether there was a significant difference between them or not. The Levene's Test for Equality of Variances was also employed in order to identify whether the observed differences between two sample means were purely random or whether there were real differences between the means. In the application of the Levene's Test for Equality of Variances, the researchers wished to see whether variability in the dependent linguistic variables was statistically significant so that it could be concluded that the means were different. The results were then presented in tables showing means and standard deviations and levels of statistical significance.

IV. RESULTS AND DISCUSSION

Figure 1 below presents the results of data analysis and the interpretation and the discussion of the emerging patterns is based on these results.

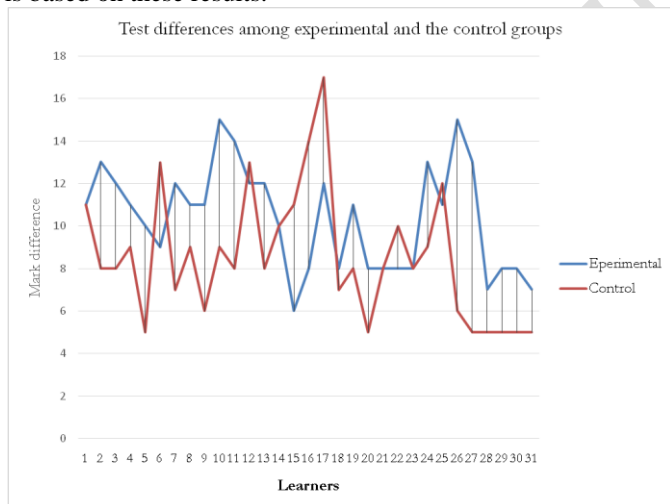


Figure 1: Test differences among the experimental and the control groups

Figure 1 above indicates that the difference between the pretest and posttest among the experimental group is generally higher than that one of the control group. This is confirmed by the descriptive statistics in Figure 2 below which shows a higher mean and lower standard deviation among the experimental group than the control group.

Descriptive Statistics

Group	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Experi diff	31	6.00	15.00	10.3871	2.45869	6.045

mental	Valid N (listwise)	31					
Contro	diff	31	5.00	17.00	8.5161	3.04271	9.258
l	Valid N (listwise)	31					

Table 1: Descriptive statistics of the experimental and control groups

The results of the independent *t* test as well confirm that the mean of the experimental group is higher than that of the control group, which clearly shows the positive effect of etymological elaboration on the retention of English idioms. That is, the results obtained reveal a significant difference between the two groups, that is, the experimental group significantly outperformed the control group with regard to the comprehension of the English idioms (cf. Tables 1 & 2). That is, as shown in Table 2 below, the participants' mean score for the experimental group is 10.3871 (SD=2.45869) while the mean score of control group is 8.5161 (SD=3.04271). This is indicative of the statistically significant difference between the two groups.

Group Statistics

	tt	N	Mean	Std. Deviation	Std. Error Mean
diff	Experimental	31	10.3871	2.45869	.44159
	Control	31	8.5161	3.04271	.54649

Table 2: T test and group statistics

Independent Samples Test

	Levene's Test for Equality of Variances	t-test for Equality of Means								
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
diff	Equal variances assumed	.378	.541	2.663	60	.010	1.87097	.70260	.46555	3.27639
	Equal variances not assumed			2.663	57.467	.010	1.87097	.70260	.46428	3.27766

Table 3: Differences between pre-test and post-test scores

In Table 3 above, the Levene's Test for equality of variances column has sig value of 0.541 which is higher than the p value of 0.05; hence, we conclude that there is no statistically significant difference between the two variances. The test of equality of means, however, results to sig value of 0.010, a figure lower than the p value of 0.05; hence, we conclude that there is a statistically significant difference between the two means. Therefore, the results reveal that etymological elaboration is significantly more effective than learning the same idioms using the teacher descriptive approach. Again, the results obtained reveal that the experimental group performed significantly better than the control group. It can be concluded that etymological elaboration helped the learners to figure out the meaning of the English idioms.

V. PEDAGOGICAL IMPLICATIONS OF THE STUDY

The present study has pedagogical implications for teachers, learners, the government and non governmental agencies, the Kenya Institute of Curriculum Development

(KICD) and other stakeholders in the education sector. First, the findings of the study indicate that etymological elaboration can help learners understand and retain the idioms they are exposed to. The findings could, therefore, persuade teachers of English in Kenya on the importance of using the etymological elaboration approach in the teaching of English idioms. Therefore, this paper suggests that teachers of English use etymological elaboration approach in their classes and encourage learners to use this technique rather than asking them to memorize the idioms in a rote fashion. Second, the government and non governmental agencies need to support, finance and provide funds for the publication of literature on English idioms since there is paucity of relevant materials on English idioms. Further, the Kenya Institute of Curriculum Development (KICD) and other stakeholders in language learning and teaching should frequently organize workshops and seminars on etymological elaboration of teaching English idioms. Moreover, the Kenya Institute of Curriculum Development should also consider giving the etymological elaboration approach a more prominent role in second language learning.

VI. CONCLUSIONS

The findings of this study have indicated that the class that employed etymological elaboration as a method of learning English idioms did better in the posttest than the control class. This finding points to the need for the teachers of English in Kenyan schools and beyond to apply this method in their teaching instead of the teacher descriptive method that is usually used in the language classroom. In so doing, teachers will create a learning atmosphere that is conducive for their learners. The study concludes that etymological elaboration is an effective strategy in applied linguistics that enhances performance in English idioms. However, it is important to know that not all idioms can be easily hypothesized by their etymological origins because of their semantic opacity. Therefore, further studies need to be done on other language learning strategies to help improve the learners' performance in English idioms.

REFERENCES

- [1] Bagheri, M., & Fazel, I. (2010). Effects of etymological elaboration on the EFL learners' comprehension and retention of idioms. *Journal of Pan-Pacific Association of Applied Linguistics*, 14(1), 45-55.
- [2] Boers, F. (2000). Metaphor awareness and vocabulary retention. *Applied Linguistic*, 21, 553-571.
- [3] Boers, F., Demecheleer, M., & Eyckmans, J. (2004). Etymological elaboration as a strategy for learning figurative idioms. In P. Bogaards, & B. Laufer (Eds.), *Vocabulary in a second language: Selection, acquisition and testing* (pp.53-78). Amsterdam/Philadelphia: John Benjamins.
- [4] Boers, F., Eyckmans, J., & Stengers, H. (2007) Presenting figurative idioms with a touch of etymology: More than mere mnemonics? *Language Teaching Research* 11(1), 43-62.
- [5] Carter R., & McCarthy, M. (1988). *Vocabulary and language teaching*. London: Longman.
- [6] Cohen, L., & Manion, L. (1980). *Research methods in education*. London: Croom Helm.
- [7] Cooper, T. C. (1999). Processing of idioms by L2 learners of English. *TESOL Quarterly*, 33(2), 233-262.
- [8] Fernando, C. (1996). *Idioms and idiomaticity*. Oxford: Oxford University Press.
- [9] Fernando, C., & Flavell, R. (1981). *On idiom: Critical views and perspectives Exeter*, University of Exeter: Exeter Linguistic Studies.
- [10] Gibbs, R.W. (1994). *The poetics of mind: Figurative thought, language, and understanding*. New York: Cambridge University Press.
- [11] Gibbs, R.W., Bogdanovich, J.M., Sykes, J.R., & Barr, D.J. (1997). Metaphor in idiom comprehension. *Journal of Memory and Language*, 37, 141-154.
- [12] Glucksberg, S. (2001). *Understanding figurative Language: From metaphors to idioms*. Oxford University Press.
- [13] Grant L. E. (2007). In a manner of speaking: Assessing frequent spoken figurative idioms to assist ESL/EFL teachers. *System*, 35(2), 169-181.
- [14] Hornby, A., & Turnbull, J. (Eds.). (2010). *Oxford advanced learner's dictionary of current English* (8th ed.). Oxford: Oxford University Press.
- [15] Irujo, S. (1986). A piece of cake: Learning and teaching idioms. *ELT Journal*, 40 (3), 236-242.
- [16] Kachru, B. (1985). Standards, codification and sociolinguistic realism: The English language in the outer circle. In R. Quirk., & H. Widdowson (Eds.), *English in the world: Teaching and learning the language and literatures* (pp. 11-30). Cambridge: Cambridge University Press.
- [17] Kövecses, Z., & Szabó, P. (1996). Idioms: A view from cognitive semantics. *Applied Linguistics*, 17 (3), 326-355.
- [18] Liu, D. (2003). The most frequently used spoken American English idioms: A corpus analysis and its implications. *TESOL Quarterly*, 38(4), 671-700.
- [19] Makkai, A. (1972). *Idiom structure in English*. The Hague: Mouton.
- [20] McCarthy, M. 1990. *Vocabulary*. Oxford: Oxford University Press.
- [21] Moon, R. (1998). *Fixed expressions and idioms in English: A corpus based approach*. Oxford: Clarendon Press.
- [22] Perce, M. (2007). *The Routledge Dictionary of English Language Studies*. London: Routledge.
- [23] Prodromou, L. (2003). The idiomatic paradox and English as a lingua franca: Developing an idiomatic common core. *Modern English Teacher*, 12, 22-29.
- [24] Richard, J. (2008). *Teaching listening and speaking: From theory to practice*. Cambridge: Cambridge University Press.
- [25] Rundell, M., & Fox, G. (2007). *Macmillan English dictionary for advanced learners*. London: Macmillan.

- [26] Schmitt, N., & McCarthy, M. (1997). *Vocabulary: Description, acquisition and pedagogy*. Cambridge, UK: Cambridge University Press.
- [27] Simpson, R., & Mendis, D. (2003). A corpus-based study of idioms in academic speech. *TESOL Quarterly*, 37(3), 419-441.
- [28] Strakšiene, M. (2009). Translation strategies from English into Lithuanian, *Studies about Languages*, 14, 13-19.

- ✓ To cross the Rubicon
- ✓ To between the Scylla and Charybdis

APPENDIX A: THE INITIAL LIST OF ENGLISH IDIOMS

- ✓ Pass the baton
- ✓ Champ at the bit
- ✓ A poisoned chalice
- ✓ A chink in someone's armour
- ✓ Haul someone over the coals
- ✓ A steady hand on the tiller
- ✓ Gird your loins
- ✓ A / the hair of the dog (that bit you)
- ✓ A red herring
- ✓ A dog in the manger
- ✓ Between the Scylla and Charybdis
- ✓ (Buy) a pig in a poke
- ✓ The black sheep of the family
- ✓ A White elephant
- ✓ A dark horse
- ✓ An elephant in the room
- ✓ A snake in the grass
- ✓ To smell a rat
- ✓ Throw down the gauntlet
- ✓ The road to Da'mascus
- ✓ To have the sword of Damocles hanging over one's head
- ✓ Lock, etc the stable door after the horse has bolted
- ✓ Jekyll and Hyde
- ✓ A / the fly in the ointment
- ✓ To kiss the blarney stone
- ✓ Extend an olive branch
- ✓ To cut / untie the Gordian knot
- ✓ Rule of the thumb
- ✓ Run the gauntlet
- ✓ Climb / jump / join / get on the bandwagon
- ✓ Gain / win one's laurels
- ✓ Open Pandora's box
- ✓ To cleanse the Augean stables
- ✓ Hide one's (your) light under a bushel
- ✓ Meet one's Waterloo / meet somebody's Waterloo
- ✓ An / one's Achilles' heel / the heel of Achilles
- ✓ A feather in your cap / a feather in one's cap
- ✓ Bury the hatchet
- ✓ Gird (up) your loins
- ✓ A poisoned chalice
- ✓ A dog in the manger
- ✓ Read (somebody) the Riot Act
- ✓ Fire and brimstone
- ✓ To give a sop to Cerberus
- ✓ Carry / take, etc coals to Newcastle
- ✓ A White Elephant
- ✓ The Elysian Fields
- ✓ To mind one's P's and Q's

APPENDIX B: PRETEST

Instructions: Match the idiom in column A and its correct meaning in column B.

No	Column A Idiom	Column B Meaning
1	A poisoned chalice	Join others in doing something fashionable or likely to be successful.
2	A / the hair of the dog that bit you	To gain the power to persuade by skilful speech.
3	A red herring	To effect great improvements in government, or to abolish great abuses, in a very short time.
4	A pig in a poke	To refer to something that misleads or distracts from the relevant or important issue
5	A white elephant	A member of a family or other group who is considered as a disgrace, embarrassment, undesirable or disreputable.
6	An elephant in the room	To sell or buy something without the buyer knowing its true nature or value, especially when buying without inspecting the item beforehand
7	Throw down the gauntlet	A thing which seems attractive when it is given to somebody but which soon becomes unpleasant.
8	To have the sword of Damocles hanging over one's head	An achievement that one can be proud of or an action that you can be proud of.
9	A feather in your cap / a feather in one's cap.	Give a challenge to somebody to do something / to invite somebody to fight or compete with you.
10	A fly in the ointment	To solve a problem by taking action.
11	To kiss the blarney stone	To be in imminent danger of losing one's life or to live in constant fear of some impending danger.
12	The black sheep of the family	Declare authoritatively (to somebody) that something must stop.
13	To cut / untie the Gordian knot	Win fame or honour.
14	Rule of the thumb	To be very particular about one's behaviour.
15	Run the gauntlet	A small, unpleasant matter that spoils something.
16	Jump on the bandwagon	A problem that everyone knows very well but no one

		talks about because it is taboo or embarrassing.
17	Gain / win one's laurels	This is someone who pretends to be your friend while secretly doing things to harm you.
18	Open the Pandora's box	This is a possession that is useless or troublesome, burdensome especially because it is expensive to maintain or difficult to dispose of.
19	To cleanse the Augean stables	To take a decisive step from which there is no turning back.
20	Hide one's (your) light under a bushel	To be criticized or attacked by a lot of people, especially a group of people that you have to walk through.
21	An / one's Achilles' heel / the heel of Achilles	Something that could cause a lot of problems if you do it, use it, or say it.
22	Bury the hatchet	An alcoholic drink that is consumed the morning after with the aim of lessening the effects of a hangover.
23	Gird (up) your loins	Weak or vulnerable point; fault, especially in somebody's character, which can lead to his downfall.
24	A dog in the manger	To stop quarrelling and become friendly.
25	Read (somebody) the Riot Act	To do anything superfluous or unnecessary.
26	To give a sop to Cerberus	To prepare for something difficult.
27	To mind one's P's and Q's	A rough practical method of assessing or measuring something, usually based on past experience rather than on exact measurement.
28	To cross the Rubicon	Hide one's talents, abilities or good qualities because of modesty.
29	A snake in the grass	To appease someone by gift or bribe.
30	Carry coals to Newcastle	To speak of those who selfishly and spitefully prevent others from having something that they themselves have no use for.

	dog that bit you	consumed the morning after with the aim of lessening the effects of a hangover.
3	A red herring	To refer to something that misleads or distracts from the relevant or important issue
4	A pig in a poke	To sell or buy something without the buyer knowing its true nature or value, especially when buying without inspecting the item beforehand
5	A white elephant	This is a possession that is useless or troublesome, burdensome especially because it is expensive to maintain or difficult to dispose of.
6	An elephant in the room	A problem that everyone knows very well but no one talks about because it is taboo or embarrassing.
7	Throw down the gauntlet	Give a challenge to somebody to do something / to invite somebody to fight or compete with you.
8	To have the sword of Damocles hanging over one's head	To be in imminent danger of losing one's life or to live in constant fear of some impending danger.
9	A feather in one's cap.	An achievement that one can be proud of or an action that you can be proud of.
10	A fly in the ointment	A small, unpleasant matter that spoils something.
11	To kiss the blarney stone	To gain the power to persuade by skilful speech.
12	The black sheep of the family	A member of a family or other group who is considered as a disgrace, embarrassment, undesirable or disreputable.
13	To cut / untie the Gordian knot	To solve a problem by taking action.
14	Rule of the thumb	A rough practical method of assessing or measuring something, usually based on past experience rather than on exact measurement.
15	Run the gauntlet	To be criticized or attacked by a lot of people, especially a group of people that you have to walk through.
16	Jump on the bandwagon	Join others in doing something fashionable or likely to be successful.
17	Gain / win one's laurels	Win fame or honour.
18	Open the Pandora's box	Something that could cause a lot of problems if you do it, use it, or say it.
19	To cleanse the	To effect great improvements

APPENDIX C: MARKING SCHEME

No	Column A	Column B
	Idiom	Meaning
1	A poisoned chalice	A thing which seems attractive when it is given to somebody but which soon becomes unpleasant.
2	A / the hair of the	An alcoholic drink that is

	Augean stables	in government, or to abolish great abuses, in a very short time.
20	Hide one's (your) light under a bushel	Hide one's talents, abilities or good qualities because of modesty.
21	The heel of Achilles	Weak or vulnerable point; fault, especially in somebody's character, which can lead to his downfall.
22	Bury the hatchet	To stop quarrelling and become friendly.
23	Gird (up) your loins	To prepare for something difficult.
24	A dog in the manger	To speak of those who selfishly and spitefully prevent others from having something

		that they themselves have no use for.
25	Read (somebody) the Riot Act	Declare authoritatively (to somebody) that something must stop.
26	To give a sop to Cerberus	To appease someone by gift or bribe.
27	To mind one's P's and Q's	To be very particular about one's behaviour.
28	To cross the Rubicon	To take a decisive step from which there is no turning back.
29	A snake in the grass	This is someone who pretends to be your friend while secretly doing things to harm you.
30	Carry coals to Newcastle	To do anything superfluous or unnecessary.

IJIRAS