Comprehension of English Jokes in Chinese EFL Learners

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Abstract

In this study, factors influencing the comprehension of English jokes by Chinese EFL learners and the ranking of difficulty of English jokes of various types are explored. The subjects were 127 Chinese high school students who were asked to judge whether the texts in a questionnaire are jokes and to write the punch lines if they answered affirmatively. Thirty texts, classified as universal jokes, linguistic jokes and cultural jokes, were given; linguistic jokes were further divided into phonological, syntactic, lexical and morphological types. The results of this project show that universal jokes are easiest for Chinese EFL subjects to understand, followed by linguistic jokes, and that cultural jokes are the most difficult. Among the linguistic jokes, the difficulty ranking is morphological jokes < (easier than) lexical jokes < syntactic jokes < phonological jokes, and a significant difference is observed between linguistic jokes of any two types except between the two word-level jokes, namely morphological and lexical jokes. Phonological jokes appear to be the most difficult, more so than even the cultural jokes. A possible reason is that Chinese writing is logographic and that Chinese EFL students hence tend not to pronounce a text when assessing the English jokes. Subjects are divided into groups of high, medium and low levels of English proficiency. For the most difficult cultural jokes, a significant difference exists between only groups of low and other (high plus medium) levels, but for the easiest universal jokes, the significant difference shifts to between groups at the high and other (medium plus low) levels. For linguistic jokes a significant difference is detected between groups of any two levels, but the major gap is between the high and other groups, similar to the situation for universal jokes.

Keywords: joke comprehension, cultural jokes, linguistic jokes, universal jokes, EFL learning.
I. Introduction

As non-native speakers of English, many Chinese EFL (English as a Foreign Language) learners have difficulty judging whether a text (or an utterance) is a joke. Even when they recognize a joke, they still fail to identify the key word or phrase (the so-called ‘punch line’) that makes the joke funny or that triggers laughter. Chinese EFL students comprehend English jokes gradually; some can understand well the humor in a joke, others can understand perhaps half, whereas still others probably have only a rough idea about the joke, but fail to recognize either the punch line or why the punch line is a trigger of laughter.

To recognize the humor in a joke naturally requires greater work of the mind than to read a regular text, requiring cooperation among knowledge of several types, a well developed cognition, and a sensitive mind to detect other possible ambiguities in the humorous text. The knowledge includes first the linguistic knowledge: one must attain English proficiency at a particular level before one can understand English jokes. Next, to understand the implication hidden in the culture-related humorous text, one must have an appreciation of the culture associated with the language. Moreover, a cognitive ability is critical also to appreciate humor because implications and presuppositions of jokes require much processing of logic and reasoning that is closely related to cognitive development. Life experiences and wisdom accumulated during youth also contribute to our ability to comprehend a joke. Because a reader of a joke requires these complicatedly interwoven abilities, the fact that appreciation of a joke by EFL students exhibits so much confusion and frustration is readily understandable.

In this study, we intend to explore the potential factors and their ranking of difficulty in influencing the comprehension of English jokes by Chinese EFL learners. Five sections are organized in this research. In the first section we introduce the background and motivation of this project; humorous texts are understandable with difficulty, especially for foreign or second language learners. In the second section we recall previous studies on humorous texts in relation to culture, language and logic, before posing the crucial questions of this research. In the third section, we present in detail the method and its implementation in this project. Our results and findings are illustrated and analyzed in the fourth section, before a summary of our findings in the fifth section.

II. Literature review

In cross-linguistic research on humorous texts, authors have focused primarily on the link between language and culture. Safnil (1996) observed that “although English as a second/foreign language students achieve proficiency in producing
grammatically and lexically correct utterances…students who are unaware of the
target culture employ cultural rules applicable to their native language, thus producing
culturally undesirable utterances.” Based on Safnil’s argument, we predict that
comprehension of cultural implications in jokes is difficult for learners of a second
language. Dennise (1995) affirmed that “specific linguistic and cultural proficiencies
are prerequisite to the understanding and appreciation of a joke.” Even when students
are proficient in English, they might misunderstand the punch lines of some
language-specific or culture-specific jokes. Brown (2000) noted the inseparability of
language and culture, stating that “a language is a part of a culture, and a culture is a
part of a language; the two are intricately interwoven so that one can not separate
the two without losing the significance of either language or culture.” Laurian (1989)
also discerned this intricate complexity, and indicated that “humor often has linguistic
and cultural components that make it particularly difficult to translate.” Liao (1998)
observed that “the background of the joke must be based on the cultural common
sense in the community of the joke-teller. And the common sense is the culture.…
Any background knowledge prior to the punch line is normal common sense in the
culture when the joke happens.” According to all this research, culture is likely to act
as a major hindrance for learners of a foreign or second language to comprehend
foreign jokes.

In addition to culture, jokes arise from linguistic ambiguity. Green & Pepicello
(1978) and Ross (1998) proposed that the humor of a text emanates from the wit
hidden in ambiguous structures designed by the teller of a riddle. These ambiguous
structures include phonological, morphological, syntactic, lexical ambiguities and
other constructions. Shultz and Pilon (1972), who classified linguistic ambiguities
into lexical, phonological, surface-structure, and deep-structure ambiguities, observed
a similar division. Besides these culture-specific and linguistic-specific jokes, there
is a joke of another common type that is universally understandable. A universal joke
of this type employs reasoning and thinking in a counter-logical way to create a sense
of humor. Because reasoning and thinking in a logical way is common to all people,
this counter-logical thinking is fun and presumably comprehensible more readily than
jokes of the preceding two types. Although jokes are classifiable into finely detailed
categories, excessive practice of this distinction would be meaningless. In this project,
we group jokes into three major types – culture-specific, linguistic-specific and
universal – as Schmitz (2002) proposed, and we explore whether these separate types
produce a variation in comprehension of jokes for Chinese EFL students.

Wang (1997) used English jokes of these three types to test college freshmen in
his experiment; he found that the cultural joke is more difficult than the
language-specific joke, which is again more difficult than the universal joke. His
conclusion was based on the rate of accuracy in test scores of 50 subjects, but no significant difference was observed. We believe that more detailed variables can be developed to elucidate the intricate influential factors in comprehension of English jokes by Chinese EFL students.

Our research questions follow.

1. Do differences exist among students with English proficiency at varied levels in their understanding of English jokes? What level of EFL students can appreciate English jokes without much difficulty?

2. Do English jokes of three types – universal, linguistic and cultural – produce a difference in comprehension of English jokes by students?

3. Among linguistic jokes, is there a hierarchy of difficulty reflecting linguistic structures?

III. Method

We adopted a quantitative method to measure comprehension of English jokes by Chinese students. A test comprising 30 English jokes was given to the subjects and a statistical analysis was applied to detect a significant difference among the variables.

3.1 Subjects

We selected randomly 127 senior subjects from National Kaohsiung Normal University Affiliated Senior High School in Kaohsiung, Taiwan. Senior pupils were chosen to ensure that all subjects had formal English education for at least five years and no difficulty in reading English texts. To maintain a gender balance, male (67) and female (58) subjects were arranged to have similar numbers. Levels of proficiency of these subjects were then classified as high, medium and low, based on their three monthly scores on examinations in English of the preceding semester, yielding groups numbering 43, 42 and 42 students in high, medium and low levels of proficiency, respectively. On those examinations the average scores of the high group were 70, the medium group 63, and the low group 27. According to the design of curriculum by the Ministry of Education in Taiwan, pupils of senior high school are supposed to acquire 6000 English words before completion of their school programs. We accordingly calculate the ranges of vocabulary of the high group to be roughly 4200 words (70/100 multiplied by 6000 words), the medium group 3780 words, and the low group 1620 words.

3.2 The English Joke Test

English jokes were first gathered from sources of various kinds – web sites, books, television programs etc. According to content, they were divided, in the first
step, into three major categories – culture-specific, linguistic-specific and universal jokes. In a second step, we examined in detail the linguistic-specific jokes to classify them into jokes of phonological, lexical, morphological and syntactic types. This classification followed roughly that of Green & Pepicello (1978) of verbal humors as phonological, morphological, syntactic, and other, as well as that of Shultz and Pilon (1973) of linguistic ambiguities into lexical, phonological, surface-structure and deep-structure ambiguity. A sample of our classification of jokes appears in Appendix A. These English jokes of various categories were then collected to form a test.

Of 30 texts in the English Joke Test, a sample from each category is shown in Table 1 below. Subjects were asked to read each text and then to indicate in the response box whether the text was a joke. If a subject’s answer were negative, he or she could proceed to the next text. If one answered affirmatively or “I don’t know”, one had to answer sequel questions. The purpose of querying subjects about recognizing a joke was to test whether subjects understood the joke. To prevent mere guessing, the student must indicate also the punch line of the joke and explain, in his or her own words, why the text was humorous.

The scoring of the joke test is one point maximum for each text, but, if a subject stated only that a text is a joke without writing the correct punch line or correct explanation, he or she was denied a point. If the identified punch line were partially correct, he or she received a fraction of a point.

Table 1: Test Categories of English Jokes and Their Proportions

<table>
<thead>
<tr>
<th>Main Joke Categories</th>
<th>Subcategories</th>
<th>No. of Texts</th>
<th>Sub Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Language-specific jokes</td>
<td>a. phonological</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>b. morphological</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>c. lexical</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. syntactic</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>B. Culture-specific jokes</td>
<td>a. blonde</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>b. religious</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. race/ethnicity</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>d. lawyer</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>e. bar</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>C. Universal jokes</td>
<td>No subcategories</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Total Texts</td>
<td></td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>
IV. Results and Discussion

4.1 Correlation of English proficiency with joke comprehension

As one’s English proficiency is closely related to one’s reading comprehension, and as joke comprehension is similar to reading comprehension, we expect the high achievers to perform better than the low achievers in comprehension of English jokes. Table 2 conforms to this prediction, with the mean, 16.258, of the high group exceeding that, 12.629, of the medium group, which in turn exceeds that, 10.038, of the low group. Table 3 indicates also a significant difference in the mean scores to exist between any two of the three groups, but the difference gap is greater between the high and medium groups than between the medium and low groups. In a test of English reading comprehension, scores are typically linearly proportional to the English proficiency of subjects. The comprehension of jokes seems distinct and generally requires of a reader a special sensitivity to linguistic structure or cultural concept to discern the punch line: only when a reader attains language proficiency to a certain level, can he or she learn this sensitivity. For this reason the high groups fared well on joke comprehension, and there was an abrupt increase in mean scores between the medium and high groups.

Table 2
Total Scores on English Jokes of Three Proficiency Groups ($^a n=43$, $^b n=42$, $^c n=42$)

<table>
<thead>
<tr>
<th>Proficiency</th>
<th>High $^a$ Mean (SD)</th>
<th>Medium $^b$ Mean (SD)</th>
<th>Low $^c$ Mean (SD)</th>
<th>$F$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Grades</td>
<td>16.258 (5.569)</td>
<td>12.629 (4.771)</td>
<td>10.038 (3.648)</td>
<td>18.517</td>
<td>0.000**</td>
</tr>
</tbody>
</table>

**$p < 0.01$.**

Table 3
Comparison of Mean Scores by Language Proficiency in Total English Jokes

<table>
<thead>
<tr>
<th>Proficiency Group</th>
<th>High vs. Medium</th>
<th>High vs. Low</th>
<th>Medium vs. Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Grades</td>
<td>**</td>
<td>**</td>
<td>*</td>
</tr>
</tbody>
</table>

*p < 0.05. **$p < 0.01$. **

4.2 Types of joke in relation to difficulty of its comprehension

Beyond the level of English proficiency of a subject, the types of joke also affect his or her comprehension of jokes. Among English jokes of three types – universal,
linguistic and cultural, the universal one is easiest and the cultural one most difficult, as illustrated by the mean scores (2.787 > 2.170 > 1.514) in Table 4. This result is consistent with Wang’s (1998) finding and with observations of Koller (1988) and of Schmitz (2002). The ranking of difficulty of jokes of these three types is universal > (easier than) linguistic > cultural.

<table>
<thead>
<tr>
<th>Joke Categories</th>
<th>Mean</th>
<th>SD</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal</td>
<td>2.787</td>
<td>1.311</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural</td>
<td>1.514</td>
<td>1.235</td>
<td>95.009</td>
<td>0.000**</td>
</tr>
<tr>
<td>Linguistic</td>
<td>2.170</td>
<td>0.867</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p < 0.01.

Besides the ranking of difficulty observed among the types of joke, the mean difference of scores between jokes of any two types is large and significant, as illustrated in Table 5. The statistical value shows that comprehension performances of subjects among jokes of these types vary, likely indicating that comprehension of jokes of each type might require knowledge of a special kind in addition to the linguistic ability of the EFL subjects. Claire (1984) pointed out that, within jokes, the punch line can be either a play on words or a call for knowledge of cultural background. If subjects lack sensitivity to linguistic features, they might thus fail to understand linguistic jokes; if subjects have too little chance to learn about American or English cultures, they might also fail to understand cultural jokes.

<table>
<thead>
<tr>
<th>I</th>
<th>J</th>
<th>I-J</th>
<th>Std. Error</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal</td>
<td>Cultural</td>
<td>1.273</td>
<td>0.107</td>
<td>0.000**</td>
</tr>
<tr>
<td>Universal</td>
<td>Linguistic</td>
<td>0.617</td>
<td>0.090</td>
<td>0.000**</td>
</tr>
<tr>
<td>Linguistic</td>
<td>Universal</td>
<td>0.656</td>
<td>0.078</td>
<td>0.000**</td>
</tr>
</tbody>
</table>

**p < 0.01.

We tested data also to discern whether differences in comprehension of jokes for jokes of various types existed in groups of disparate proficiencies. We used the one-way ANOVA univariate test to calculate the influence of English proficiency on jokes of separate types. Table 6 shows that the mean scores of subjects of high,
medium and low proficiency for the universal jokes were 3.323, 2.671 and 2.405 ($F = 6.186, p<0.01$); for linguistic jokes 2.730, 2.100 and 1.667 ($F = 21.431, p<0.01$), and for cultural jokes 1.971, 1.569 and 0.990 ($F = 7.469, p<0.01$). A significant difference was detected among the three proficiency levels in each category for jokes of the three major kinds. Hence, the performances on joke comprehension by EFL subjects are distinct in the three major categories of jokes independent of their level of English proficiency. This result tends to support Claire’s (1984) observation that jokes of various types require varied ability and knowledge of an EFL reader, hence that differentiation of comprehension of types of jokes is noticeable in all three groups.

Table 6

Grades of Categories of Jokes of Three Proficiency Groups ($^a_{n=43},^b_{n=42},^c_{n=42}$.)

<table>
<thead>
<tr>
<th></th>
<th>Proficiency</th>
<th></th>
<th></th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High$^a$</td>
<td>Medium$^b$</td>
<td>Low$^c$</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Universal</td>
<td>3.323 (1.317)</td>
<td>2.621 (1.392)</td>
<td>2.405 (1.044)</td>
<td>6.186</td>
<td>0.003**</td>
</tr>
<tr>
<td>Linguistic</td>
<td>2.730 (0.885)</td>
<td>2.100 (0.729)</td>
<td>1.667 (0.620)</td>
<td>21.431</td>
<td>0.000**</td>
</tr>
<tr>
<td>Cultural</td>
<td>1.971 (1.384)</td>
<td>1.569 (1.194)</td>
<td>0.990 (0.892)</td>
<td>7.469</td>
<td>0.001**</td>
</tr>
</tbody>
</table>

**p < 0.01.

Table 7

Paired Comparison of Mean Scores by Language Proficiency in Joke Categories

<table>
<thead>
<tr>
<th>Joke Category</th>
<th>Proficiency Group</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High vs. Medium</td>
<td>High vs. Low</td>
<td>Medium vs. Low</td>
<td></td>
</tr>
<tr>
<td>Universal</td>
<td>0.04*</td>
<td>0.005**</td>
<td>0.734(n.s.)</td>
<td></td>
</tr>
<tr>
<td>Linguistic</td>
<td>0.001**</td>
<td>0.000**</td>
<td>0.034*</td>
<td></td>
</tr>
<tr>
<td>Cultural</td>
<td>0.29(n.s.)</td>
<td>0.001**</td>
<td>0.083(n.s.)</td>
<td></td>
</tr>
</tbody>
</table>

*p < 0.05. **p < 0.01. n.s. = insignificant difference at the 0.05 level.

Because we detected significance in jokes of the three categories, a test was applied post hoc to investigate further the existence of significant differences in the comparisons of pairs; the results appear in Table 7. For the universal jokes, subjects with high English proficiency performed better than those at the medium and low levels (H>M, $p<0.05$; H>L, $p<0.01$), but no significant difference was observed between medium and low subjects. For linguistic jokes, a significant difference was observable between each two of the three proficiency levels (H>M, $p<0.01$; H>L,
For cultural jokes, only subjects of high proficiency significantly outperformed those of low proficiency (H>L, \( p<0.01 \)); no significant difference was detected between subjects of medium and low proficiency and between those of high and medium proficiency.

### 4.3 Variation of linguistic types on comprehension of English jokes

For linguistic jokes there are four subcategories. Table 8 shows that the mean scores of subjects for phonological, morphological, lexical and syntactic jokes were 1.278, 2.680, 2.555 and 2.167, respectively, and significant differences were displayed among the four subcategories (\( F = 95.826, p < 0.01 \)). The mean scores indicate the ranking of difficulty for the four subcategories to be morphological > (easier than) lexical > syntactic > phonological jokes.

<table>
<thead>
<tr>
<th>Linguistic Subcategories</th>
<th>Mean</th>
<th>SD</th>
<th>( F )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phonological</td>
<td>1.278</td>
<td>1.143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morphological</td>
<td>2.680</td>
<td>1.097</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lexical</td>
<td>2.555</td>
<td>1.150</td>
<td>95.826</td>
<td>0.000</td>
</tr>
<tr>
<td>Syntactic</td>
<td>2.167</td>
<td>0.878</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**\( p < 0.01 \).**

Through a pair-wise comparison, shown in Table 9, we examined further the significance among the pairs. As the statistical results indicate, the phonological jokes are significantly more difficult than linguistic jokes of any other sub-types (P<M, \( p < 0.01 \); P<L, \( p < 0.01 \); P<S, \( p < 0.01 \)). Likewise, syntactic jokes are significantly more difficult than lexical jokes (S<L, \( p < 0.01 \)), and than morphological jokes (S<M, \( p < 0.01 \)), but linguistic jokes of the two easiest sub-types – lexical and morphological – show no significant difference between them in the test of comprehension by subjects. Among the linguistic jokes of four sub-types, three levels of difficulty exist. The least difficult contains two sub-types on the word level – morphological and lexical, and there is no significant difference of difficulty between them. The next level of difficulty constitutes syntactic jokes, and the most difficult level involves phonological jokes. For Chinese subjects, the humorous ambiguity hidden within phonological variations seems comprehensible with difficulty greater than that in syntactic structures partly because Chinese subjects tend to read the joke texts visually, with no association with the pronunciation of the written symbol, when they are considering the jokes.
Table 9

Comparison of Mean Scores by Linguistic Jokes of separate Subcategories

<table>
<thead>
<tr>
<th></th>
<th>I</th>
<th>J</th>
<th>I-J</th>
<th>Std. Error</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phonological</td>
<td>Morphological</td>
<td>-1.402</td>
<td>0.097</td>
<td>0.000**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lexical</td>
<td>-1.277</td>
<td>0.096</td>
<td>0.000**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Syntactic</td>
<td>-8.89</td>
<td>0.087</td>
<td>0.000**</td>
<td></td>
</tr>
<tr>
<td>Morphological</td>
<td>Lexical</td>
<td>0.125</td>
<td>0.091</td>
<td>0.173</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Syntactic</td>
<td>0.513</td>
<td>0.092</td>
<td>0.000**</td>
<td></td>
</tr>
<tr>
<td>Lexical</td>
<td>Syntactic</td>
<td>0.388</td>
<td>0.086</td>
<td>0.000**</td>
<td></td>
</tr>
</tbody>
</table>

**p < 0.01.

To discover how English proficiency influences the understanding by subjects of jokes in various subcategories, we applied the one-way ANOVA univariate test; results appear in Table 10. The mean scores of the levels of high, medium and low proficiency for the phonological jokes were 1.851, 1.245 and 0.724 ($F=12.195$, $p < 0.01$); for the morphological jokes, 3.209, 2.717 and 2.102 ($F=12.887$, $p < 0.01$); for lexical jokes, 3.265, 2.438 and 1.945 ($F=18.234$, $p < 0.01$), and for the syntactic jokes, 2.595, 2.000 and 1.895 ($F=8.880$, $p < 0.01$). Significant differences exist among three proficiency levels in linguistic jokes of all four subcategories.

Table 10

Scores of Jokes in Linguistic Subcategories of Three Proficiency Groups ($^a$n =43, $^b$n=42, $^c$n=42)

<table>
<thead>
<tr>
<th>Proficiency</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td></td>
</tr>
<tr>
<td>Phonological</td>
<td>1.851 (1.307)</td>
<td>1.245 (0.987)</td>
<td>0.724 (0.795)</td>
<td>12.195</td>
</tr>
<tr>
<td>Morphological</td>
<td>3.209 (0.955)</td>
<td>2.717 (0.973)</td>
<td>2.102 (1.088)</td>
<td>12.887</td>
</tr>
<tr>
<td>Lexical</td>
<td>3.265 (1.038)</td>
<td>2.438 (1.144)</td>
<td>1.945 (0.854)</td>
<td>18.234</td>
</tr>
<tr>
<td>Syntactic</td>
<td>2.595 (0.973)</td>
<td>2.000 (0.769)</td>
<td>1.895 (0.714)</td>
<td>8.880</td>
</tr>
</tbody>
</table>

**p < 0.01.

In a comparison post hoc, as shown in Table 11, we examined further and detected a significant difference between some pairs. Doubtless, the group with high
proficiency invariably performed significantly better than the group with low proficiency in jokes of all four linguistic types, but matters differed between groups with proficiency at adjacent levels. Between the groups with high and medium proficiency, a significant difference was observed in phonological, syntactic and lexical jokes, but not in morphological jokes; the group with high proficiency hence significantly outperformed the group with medium proficiency in the difficult linguistic jokes but not in the easiest one. In contrast, between groups with medium and low proficiency, a significant difference was detectable in the morphological jokes but not in the phonological, syntactic and lexical jokes. The group with medium proficiency thus significantly outperformed the group with low proficiency in jokes of only the easiest linguistic type, not in jokes of the other and more difficult linguistic types. In summary, among the four linguistic sub-types, the ranking from the easiest to the most difficult is morphology > lexical > syntax > phonology. Although they all differ significantly from one another in mean scores of comprehension by subjects, the better EFL learners, in the high and medium groups, tended to differ significantly from each other in the difficult linguistic structures, such as phonological, syntactic and lexical jokes, whereas the lower EFL learners, in the medium and low groups, differed significantly only in the easiest linguistic structure of morphological jokes. The difference in comprehension of linguistic jokes among the subjects is hence determined mainly by the difficult linguistic structures; only when the subjects apparently attain the high proficiency level can they distinctively outperform the others and be deemed truly to understand English linguistic jokes.

Table 11
Comparison of Mean Scores by Language Proficiency in Linguistic Joke Subcategories

<table>
<thead>
<tr>
<th>Joke Subcategory</th>
<th>High vs. Medium</th>
<th>High vs. Low</th>
<th>Medium vs. Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phonological</td>
<td>0.033*</td>
<td>0.000**</td>
<td>0.08 (n.s.)</td>
</tr>
<tr>
<td>Syntactic</td>
<td>0.005**</td>
<td>0.001**</td>
<td>0.845 (n.s.)</td>
</tr>
<tr>
<td>Lexical</td>
<td>0.001**</td>
<td>0.000**</td>
<td>0.09 (n.s.)</td>
</tr>
<tr>
<td>Morphological</td>
<td>0.083 (n.s.)</td>
<td>0.000**</td>
<td>0.023*</td>
</tr>
</tbody>
</table>

*p < 0.05. **p < 0.01. n.s. = difference insignificant at the 0.05 level.

Possible explanations that subjects scored worst on phonological jokes involve the learning habits of subjects, their varied socio-cultural background and the influence of their native language, Chinese in this case. When learning English, Chinese students seldom read aloud the English material and thus fail to activate
homophone mechanisms. This learning habit fails them in reading phonological jokes because functioning homophones would not be mentally associated. Furthermore, English and Chinese are two disparate languages: English belongs to an alphabetical writing system, which “with discrete letters written in a line one behind the other, seems to be capable of representing the sound system...Indeed, native speakers...can usually determine without any difficulty, the ‘distinct’ sounds of which a word consists.” In contrast, Chinese represents “the WORD in its entirety” (Katamba, 1989: 16). Moreover, the logograms of Chinese do not necessarily “specify the sound of the word” (Huang & Tzeng, 1981: 395). In this way, subjects transfer the way that they read Chinese to the way that they interpret texts in English; hence greater concern with the form of the language than with the sound results in superior comprehension by subjects of morphological jokes than of phonological jokes.

In summary, universal jokes are most easily comprehended; cultural jokes might be easy or difficult depending on whether one has similar or distinct cultural concepts, and linguistic jokes must be learned with improvement of linguistic ability, generally from a morphological and lexical level to the complicated syntactic and phonological structures.

V. Conclusion

Our findings in this study are that the greater is a learner’s level of English proficiency, the better is his or her comprehension of an English joke; moreover, a significant difference is observable between any two adjacent groups, with the difference between groups of medium and high proficiency larger than that between the medium and low groups. Only the subjects of English proficiency at a high level, having acquired a vocabulary of roughly 4200 words, can hence appreciate the humor of English jokes.

Next, the scores on comprehension show that the hierarchy of difficulty for Chinese EFL learners is that cultural jokes are more difficult than linguistic jokes, which are in turn more difficult than universal jokes; there is a significant difference between jokes of any two of these three major types. An explanation is that jokes of these three types require varied abilities of comprehension of EFL learners. In cultural jokes the association of the culture and the concept that serves as background knowledge is natural for a native speaker but arbitrary for an EFL learner. If a learner has never become acquainted with the concept, he or she would lack the key tool to solve the humorous puzzle and thus miss the joke. Linguistic jokes, in contrast, are not arbitrary in that the solution to the puzzle is the linguistic element itself, such as morphemes, words, phrases, sentences, sounds etc. As long as the reader of a joke attains proficiency in English to a certain level, he or she can diagnose the ambiguities
and understand the humor hidden in the ambiguous linguistic structures. Universal jokes are basically logical jokes, the humor of which is derived from the counter-logic way of thinking or reasoning. As logical thinking or reasoning is universal and is closely related to our cognitive development, adults with cognition well developed have typically no difficulty comprehending jokes of this type. Universal jokes are difficult only for children whose cognition has not yet fully developed or for persons who have a language barrier in understanding, namely subjects of the medium and low levels in this study. For the most difficult cultural jokes, a significant difference exists only between groups of the low and other (high and medium) levels, but for the easiest universal jokes, the significant difference locates between groups of high and other (medium and low) levels. A significant difference is observed between groups of any two levels in linguistic jokes, but the major gap is between the high and other groups, similar to the distribution in universal jokes.

Among linguistic jokes, the hierarchy of difficulty is morphological, lexical, syntactic and phonological jokes. The lexical and morphological types are on the word level and are easier than the syntactic and phonological types; a significant difference is detectable only among the three categories of word, syntactic and phonological jokes, not between morphological and lexical jokes. Jokes of the phonological type are the most difficult for Chinese subjects, even more difficult than the cultural jokes. Several possible reasons include the disparate linguistic systems between English and Chinese, sound association in socio-cultural concepts, the English learning habit of subjects etc. As Chinese has a logographic writing system, Chinese readers tend to associate graphics with meaning directly when they read, but English is a spelling language according to which English native speakers customarily regard written symbols as sounds and tend to associate meaning with sounds in their reading process. Hence, phonological jokes are difficult not for English native speakers but for Chinese subjects because of the non-functioning phonetic association or the additional process of converting the written form to the phonetic form.
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Appendix A: English Joke Categorization

1. Universal type of jokes

Ann: Are you still working at that florist’s?
Judy: No, I got fired.
Ann: Why?
Judy: I had to put two cards into floral arrangements and I got two of them mixed up. I thought the flowers for a wedding were for a funeral, so I put in a card which read “With the Deepest Sympathy” and the flowers going to the funeral had a wedding card in them.
Ann: What did it say?
Judy: It said “Hope You’ll Be Happy in Your New Home!”

2. Culture-specific jokes

A Cuban, a Japanese, an American and a Mexican are in a boat. The Cuban pulls out a box of cigars, takes one and throws the rest in the water. He puffs twice and throws it in the water. He says, “We have so many cigars in Cuba, we can spare a few.” The Japanese guy pulls some computer chips out of his pocket and says, “We produce so many of these, we can spare a few.” The American looks at the Mexican and the Mexican says “Don’t even think about it.”

3. Language-specific jokes

3.1 Phonological jokes

A: Why is money called dough?
B: Because we all knead it.

3.2 Morphological jokes

A: What’s a baby pig called?
B: A piglet.
A: So what’s a baby toy called?
B: A toilet.

3.3 Lexical jokes

One day a man was walking and bumped into a building and was taken into a hospital. When he woke up, the doctor said to him. “Sir, your brain has been divided into two parts. The left part of your brain has nothing right and the right part of your brain has nothing left!”

3.4 Syntactic jokes

An English teacher wrote these words on the white board: “woman without her man is nothing”. The teacher then asked the students to punctuate the words correctly. The men wrote: “Woman, without her man, is nothing.” The women wrote: “Woman! Without her, man is nothing.”