The Problem of Logico-Semantic Analysis of a Joke:
What do Russians Laugh at?

Galina A. Kalmykova
Ulyanovsk State Pedagogical University (Russia)
dr.kalmykova_g@mail.ru

Abstract. We aim at discussing some logical and semantic factors, which influence the joke perception. It is known that many jokes are constructed on the basis of enthymeme; thereby the perception of a joke is mainly determined by the recipient's ability to restore this inferential chain. Examining specifically English and German jokes as well as the translation data (Russian jokes translated into English) we discuss the results from the point of view of Russian-speaking recipients. We define clichés due to which the recipient can predict thematic attribution to a joke. We further propose the invariant logical models, based on syllogistic reasoning. The discussion should support the relevance of a hypothesis concerning the significance of script, inferential skills of a recipient and narrative information of a joke conveyed through its presuppositional basis. The combination of these factors within a joke enables the hearer/reader to perceive it most adequately.

Key words: enthymeme, inferential skill, syllogistic reasoning, cliché, script

One of the best ways to understand people is to know what makes them laugh.
(H. Golden)

The perception of a joke is determined by many factors, not the least of which being language competence and knowledge of characteristic features pertaining to a specific cultural environment. The perception of a joke is quite often caused by the fact that a recipient not only understands the language and external shapes of the characters in the joke, but also is familiar with scripts and cliché-phrases. Due to these factors, jokes are not clear to children who have not yet seized scripts and clichés characteristic of jokes. The same is true for the carriers of other cultures, even if they know the language of the joke well.

The subject matter of our research is German and English jokes perceived by Russian-speaking recipients as well as the translation corpus: Russian jokes
translated into English (Draitzer 1999). The methodological basis of the research is logico-semantic description supported by experimental data.

The joke is generally a very short narrative, that’s why cliché-phrases play specific text-generative role. The investigator of Russian jokes E. Shmeleva (Shmeleva et al 2000) defines three main groups of such clichés:

a) Standard beginnings;
b) Elements of language masks;
c) Cliché details.

We support his classification and try to expand it. Due to the first group, *standard beginnings*, the jokes form series and can be easily attributed thematically. Unlike A.Shmeleva, we also include allusions to the names of well-recognized characters. For example, the names of Tuennes and Schael are widely known in Germany. There’s a series of jokes showing these dwellers of Cologne in different situations (Das grosse Buch der Witze 1989). Such recognizable characters can be found in every culture.

The second group, which includes *the language masks* of the characters of a joke, combines cliché formulas and prearranged signals also making the characters recognizable. For instance, in the jokes about Sherlock Holmes it is always used such phrase as “It’s elementary, Watson!”; or Georgians in Russian ethnic jokes always add the word *yes?* with interrogative intonation. For all that their cues should be pronounced with a specific Georgian accent. Not only phrases or intonation and accent, grammar can be a part of a language mask as well. The language can be dialectically tinged primarily by grammatical errors, rather than structurally consistent with non-standard language (Schwartz 1988). Thus, the verb *to be* - as in “I is,” was used to convey the comic, quasi-criminal activities of the characters. The second cliché group is highly ethnically specific and often creates difficulties with adequate understanding.

The third group, *cliché details*, includes the description of appearance, way of behaving, clothes and other accessories; for example, “a red jacket” serves as an attribute to the community of “new Russians”.

The joke is a narrative, in which the *occasional* picture of the world is created. This narrative is very short and has its specific constructive logicality. The first part of a joke is the so-called *start or commencement*, in which the author (or story-teller) defines both a place and time of a situation and also outlines (or just names) the basic characters. Thus, he defines the script within the framework
of which the plot will develop. The second part of a joke is a *dialogue*, which builds the intrigue-generative core. The role of axis in this intrigue generation belongs to the inference or categorical syllogisms. It is generally recognized that categorical syllogisms (or deductive and inductive reasoning) appear in conversation rather frequently (Getmanova 1987: 137). Previous research investigating the so-called trinomial dialogical unities (3-DU), constructed on the basis of categorical syllogism, showed that the reasoning in conversation is frequently represented by the form of enthymeme - the reduced syllogism in which one of the implied parts is omitted (Kalmykova 1997: 24).

Categorical syllogisms were devised by Aristotle in ancient Greece, were seen in the Middle Ages as the basis of all logical thought, and were not really superseded until propositional logic was introduced in the late nineteenth century. Although syllogisms are now less central to logic, they have still aroused much interest in psychology, an interest which in recent years has increased rather than abated (Newstead 1995: 644). As a rule, syllogism consists of two premises and a conclusion. Trinomial dialogical unity (3-DU) represents a coherent cue-chain, which can be formalized by some logical models. The complete 3-DU consists of: (1) initial cue of the speaker, (2) reply, (3) argumentation or conclusion deduced from the two previous parts. The standard cue-chain is very often violated and that forms pragmatic peculiarity rooted in the biplane essence of a joke. This kind of violations was defined as «evaluative and inferential gaps» (Karassik 2002: 376). Inferential gaps are of great interest for our research, as they seem to be a sneer at standard logic. In a joke these gaps represent themselves as a trap for one of the characters, or the addressee.

Thus, the perception of a joke demands from the recipient the availability of some specific skill to restore the whole violated inferential chain, using the background knowledge and presupposition data, i.e. the skill of reading between the lines (Lapp 1992: 12).

The definition of logic status of a joke is based on the rules of “a logic square”. Parts of a syllogism (two premises and a conclusion) are called terms. One of the terms is common, occurring in both premises. The common term is usually referred to as the *middle term*, while those that occur in the conclusion are called *end terms*. The terms can occur in four different orders, which are called *syllogistic figures*. Each figure has some versions, i.e. *modi*. The results of our
research show, that the most widespread modus, which characterize a joke, is the modus of an uncertain partial inference (Kondakov 1975: 379).

It thus seems reasonable to conclude that at the heart of any joke there’s some script correlated with reality. In logical terms this script corresponds to a supposition with universal quantifier “all”. The cues of characters correspond to a minor premise and a conclusion.

Below, I explore common script “Goldfish grants somebody’s wish” comparing two jokes.

(1) An old man caught a Goldfish in the river. And it said to him: «As I’m a river- but not a sea-Goldfish, I can grant you only one wish». The old man thought a little and said: «I wish the war in the Chechen Republic to be ended». The Goldfish replied to it: «I cannot grant you this wish because I do not know where the Chechen Republic is. Express some other wish». The old man thought over again and said: «Then let my old woman become a beauty». And he showed a photo of his old woman to the Goldfish. For a long time looked the Goldfish at the photo, and then said: «All right, the old man, fetch the globe – we shall look for the Chechen Republic!» (Told by a university student, 20).

(2) A drug addict goes along the riverbank and sees a Goldfish lying on sand. He picks it up and twiddles it. And the Goldfish says to him: «Haven’t you read any fairy tales in your childhood?” After these words the drug addict tears off the Goldfish’s fins, throws them into the air and keeps saying: «Fly, fly, a petal ...» (Told by a university student, 19).

In the joke (1) characters of the common script are $x_1$ – a Goldfish and $y_1$ – an old man. The action itself, i.e. «to grant somebody's wish” - $a$ - is combined with requests $r_1$ and $r_2$. The next logical model represents the common script:

$$ S (A) \supset \{x_1, y_1\} \Leftrightarrow \{r (y_1) \rightarrow a (x_1)\} $$

Further, in the joke (1) we observe the violation of the common script. The Goldfish can grant neither the first, nor the second wish of the old man. And in addition to it there appears a choice-situation. We formalize it by means of $\lor$ (disjunction sign):
\{r1 (y1) \rightarrow \neg a (x1)\} \lor \{r2 (y1) \rightarrow \neg a (x1)\}

As the choice was done for the benefit of the first desire: \(r1 (y1)\), the second part of the joke will be formalized in the following way:
\[S (A) \supset \{x1 \cdot y1\} \Leftrightarrow \{r1 (y1) \rightarrow \neg a (x1)\} \lor \{r2 (y1) \rightarrow \neg a (x1)\} \Rightarrow \{r1 \rightarrow a (x1)\}\]

Thus, the comic nature of the joke under discussion is connected with the violation of syllogistic rules. It is necessary to note, that manipulation with scripts in the joke structure, their shift and blending (Coulson 2001) constantly create comical situations. The mixture of frames or frame blending is especially evident by comparison of jokes (1) and (2).

The common script for both jokes is:
\[S (A) \supset \{x1 \cdot y1\} \Leftrightarrow \{r (y1) \rightarrow a (x1)\}\]

But this common script has a frame version for joke (2), which is connected with Floweret of Seven Colours (we mean Russian literary fairy tale "Floweret of Seven Colors" by V.Kataev, in which the fulfillment of a wish is connected with petals’ being torn off).

The plot itself influences its formalization (\(x1\) – a Goldfish and \(y2\) – a drug addict). According to the fairy tale a wish can be granted only in case if one of the petals of Floweret of Seven Colours is torn off and after words “Fly, fly the petal...” the wish is pronounced. We formalize the action preceding the wish as \(pa\). Then the model of a new frame, which edges into the narrative of the joke (2), is:
\[S (A \ ') \supset \{x1 \cdot y2\} \Leftrightarrow \{y2pa (r)\}\]

Visual inspection of two models evidently shows what kind of changes can have taken place with frame blending:
\[S (A) \supset \{x1 \cdot y1\} \Leftrightarrow \{r (y1) \rightarrow a (x1)\}\]
\[S (A \ ') \supset \{x1 \cdot y2\} \Leftrightarrow \{y2pa (r)\}\]
Thus, the joke not only creates an occasional picture of the world, it breaks the known common script and violates frames or pushes them together, blends them, substituting their traditional components.

A joke is always some kind of violation or even destruction of logicality of our thinking. The first stage of a joke perception is closely connected with surprise. “However, to really ‘get’ the joke, the listener must go beyond surprise and formulate a new, coherent interpretation <…>. Coherence involves a process of frame-shifting, in which the listener activates a new frame from long-term memory to reinterpret information already active in working memory” (Coulson 2001: 71).

To support our idea about the role of recipient’s inferential skill in the process of the perception of the joke, we questioned 48 voluntary Russian-speaking respondents (students and teachers). They all have knowledge of English or German. Participants read jokes (30 examples) extracted from the corpus data.

The perception of a joke begins as a rule with its attribution to the definite narrative genre. In the first questionnaire (I) the respondents’ task was to define jokes among short humoristic texts (10 texts in Russian: jokes and short funny passages from literary works). 69% of students and 57% of teachers attributed as a joke a short conversation with anecdotic cliché characters popular in Russian-speaking environment – Chapaev and Pet’ka. 38% of students and 43% of teacher defined a short humoristic dialogue (extracted from the literary work) as a joke on the ground of its brevity and availability of invectives. Both texts were built as reduced syllogistic reasoning – enthymeme.

As one of the tasks in questionnaire (II) the respondents were suggested to write down their favourite jokes. 62% of the participants wrote down the jokes, built as syllogistic reasoning, 35% of them were based on frame violation. 26% of the respondents liked the jokes with play on words.

And at last, a test of joke’s appreciation was administered. It contained 20 examples of jokes in English and 12 examples of jokes in German. Each individual rated on a five-point scale how funny he found each of these jokes. Among the jokes in English the highest rate acquired the “Train ride”-joke (73%):

*A man and a woman, who have never met before, find themselves assigned to the same sleeping room on a transcontinental train. Though initially embarrassed and uneasy over sharing a room, the two are tired and fall asleep quickly – he in the upper bunk and she in the lower.*
At 2:00 AM, he leans over and gently wakes the woman, saying, “Ma’am I’m sorry to bother you, but would you be willing to reach into the closet to get me a second blanket? I am awfully cold” – “I have a better idea”, she replies. “Just for tonight let’s pretend that we’re married.” – “Wow! That’s a great idea!!” he exclaims. “Good”, she replies. “Get your own damn blanket!” (Sent by R.Caldarone, Danvers, MA, USA)

65% of the respondents, who read jokes in German, chose the joke Woher der Floh? (Where is the flea from?).

Rudolf Rogalski is a skipper of a ferry and he goes from Koenigsberg to Scandinavian countries. He has a two-days holiday and goes home by tram. In the evening while having supper he says suddenly: “My body is itching. I think I have fleas. I must have got them in the tram”. – “I don’t think so”, his Mother answered. “Why not?” – “Because it is forbidden to jump on and off in the tram.” (Das grosse Buch der Witze)

The jokes with clear structure of syllogistic reasoning (as in the above-mentioned cases of jokes in English and in German) are understood better and the respondents name them among favourites.

The conclusion stemming from this research is that the combination of basic factors within a joke, - knowledge of scripts and cliché-phrases, ability to restore the whole inferential chain incorporated in a joke – enable the hearer/reader to perceive a joke more adequately.

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