THE INFLUENCE OF GRAMMATICAL GENDER ON SEMANTIC JUDGEMENT. AN INVESTIGATION OF ROMANIAN AND HUNGARIAN

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Abstract: This paper aims to investigate whether grammatical gender influences the semantic judgements of Romanian speakers as opposed to Hungarian speakers, in terms of the imaginary gender that individuals tend to ascribe to everyday objects. Using two different tests, one involving a purely linguistic task, while the other implied visual input as well, we proved that in the case of Romanian native speakers, grammatical gender is a strong predictor of the imaginary gender subjects tend to attribute to concrete nouns. For Hungarian speakers, imaginary gender was not assigned randomly, but followed a pattern consistent with an earlier research, which proved that speakers of Hungarian tend to quantify immediate reality in terms of usability, while speakers of Romanian are more inclined to first process their surroundings based on aesthetic characteristics.
Our results also lead to the secondary conclusion that visual input and emotional affiliation reduce the extent of the influence of grammatical gender on cognition.

Keywords: linguistic relativity, bilingualism, grammatical gender

1. An overview of the linguistic relativity hypothesis

The theory of linguistic relativity (also known as the Sapir – Whorf hypothesis) is, simply put, the view that there is a strong interdependence between the languages one uses and one's thought patterns and outlook on the world. In other words, one's spoken languages act as a set of coloured lenses, mediating the speaker's interaction with the surrounding reality, while at the same time limiting his/her perception to the spectrum of colours visible through those lenses. As such, in the absence of non-verbal thought, individuals are only able to conceptualise the world within the limits of the linguistic material offered by their spoken languages and, in order to perceive a new reality, one needs to learn the way to name it.

Although the starting point of this idea can be traced back to the early 19th century, it was only in the last few decades that researchers succeeded in proving the significant influence that language exercises on thought. The vocabulary and grammatical structure of a certain language focuses on some aspects of external reality rather than on others, considered to be less relevant in that society's existence; this determines individuals to form specific thinking patterns. In the words of Edward Sapir, the total vocabulary of a language is "the complex inventory of all the ideas, interests and occupations which retained the attention of a community"[1]. It is the case of the anecdotal high number of words for "snow" that Eskimo languages have, in response to the fundamental reality of their world. Also, some languages possess the category of the politeness pronoun, thus directing their speakers to be more focused on the age or social status of the person they are addressing, whereas speakers of

[1] Sapir, E. (1921). *Language. An Introduction to the Study of Speech*. New York: Harcourt, Brace, p. 103

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languages without a pronoun of politeness must make a conscious effort, in another language, to discern the category of people this pronoun applies to.

Each language focuses on its specific set of information, thus forcing its speakers to frequently think about that information. When a certain language constrains its speakers to give increased attention to certain aspects of external reality every time they have a conversation, this will lead to the formation of patterns in their thinking processes, which ultimately has consequences on memory, perception, associations or practical abilities.[2]

1.1. Grammatical and imaginary gender

The grammatical category of gender is a purely formal classification of nouns in two, three or even more categories. These categories are often named "feminine", "masculine", or "neuter". Grammatical gender is a concept used solely for the purpose of linguistic classification; it is a different notion than biological or social gender, and these two sides are often found in a relationship of paradoxical opposition. It is for instance the case of the noun Mädchen in German, which means "girl", but is grammatically neuter in gender.

Although in most cases one can see a correspondence between grammatical gender and the natural gender of animate beings, when it comes to abstract concepts or inanimate nouns, their grammatical gender is assigned entirely arbitrarily, as these objects obviously do not possess any intrinsic feminine or masculine features.

Even so, recent studies carried out by Lera Boroditsky[3] suggest that, within languages that have the grammatical category of gender, this has a significant influence on the feminine or masculine features that individuals tend to associate with inanimate nouns. For example, sin is depicted as a man in Russian painting, but as a woman in German art. Spanish speakers will describe a bridge as "strong" or "imposing", (inherently manly characteristics), whereas German speakers will describe an image of the same bridge as "supple" and "elegant", (obviously female attributes). All these instances of genderisation are due to the grammatical masculinity or femininity of the noun in question.

The correlation between grammatical and imaginary gender is amply mirrored in literature. Irina Petraş[4] claims that gender differences work upon the anthropomorphic perspective, so that the humans' view of the world is imposed by the words' (sub)conscious gender. For example, as the seasons are all feminine in the Romanian language, they are inevitably depicted as females in Romanian poetry[5]: „Toamna e-atât de rumenă în târg / cu flori în păr, roşcate…" (B. Fundoianu), „Toamna, femeia cu privirea fumurie / A intrat suspectă şi umilă"… (Ion Minulescu).

[2] Deutscher, G. (2010). *Through the language glass: why the world looks different in other languages*. New York. Metropolitan Books, p. 152
[3] Boroditsky, L. (2011). How language shapes thought. *Scientific American*, 304(2), pp. 63-65.
[4] Petraş, I. (2002). *Feminitatea limbii române: Genosanalize*. Cluj-Napoca. Casa Cărţii de Ştiinţă, p. 90
[5] Petraş, I. (1999). *Limba – stăpâna noastră: încercare asupra feminităţii limbii române*. Cluj-Napoca. Casa Cărţii de Ştiinţă, p. 116

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2. Description of the research

A total number of 71 individuals took part in the research, 40 of whom were of Romanian ethnicity and 32 Hungarian, both lots being residents of Romania. Each of the two tests was conducted individually, in the subjects' native language.

Test 1 – The animation film

For this test, the subjects were given a list of 48 nouns belonging to the basic vocabulary, with the following instructions: *"Imagine you are producing an animation film. If the following items were to become characters in your film, what name would you give them?"* In this noun list, arranged in alphabetical order, we inserted 8 control nouns denoting beings; their grammatical gender obviously coincided with their natural sex (man, woman, boy, girl, king, bride, ogre and ballerina). The remaining 40 nouns, denoting inanimate objects and animals, were selected in such a way that, in Romanian, 21 would be masculine and 19 feminine in their singular form. The purpose of inserting the control nouns was to validate the test by ensuring the participants had understood and followed the instructions. Therefore, we expected a 100% degree of correlation between grammatical and imaginary gender in both tested groups, in the case of the control nouns.

The hypothesis of the experiment was that, in the case of native Romanian speakers, the names they would give each object would be consistent with the grammatical gender of said object, whereas no correlation would be noted in the case of Hungarian speakers. The test was applied in the subjects' native language, i.e. either Romanian or Hungarian. After performing the test, a brief interview was conducted with the subjects, in order to gain more insight into the motivations of their name choices.

Test 2 – The theatre play

For this task, the subjects were presented two sheets containing images of human faces: 8 males on one of the sheets and 8 females on the other. The sheets were accompanied by a list of concepts representing the four seasons, as well as other natural phenomena (wind, snowflake, rain, snow, fog). The instructions given to the subjects were as follows: *"Imagine you are the director of a fantasy play. The people in the photographs are the actors applying for the roles, and the concepts on the list are the roles in which you must distribute them. Please choose the person you consider most suitable for each role, then motivate your choice briefly. You do not need to use all the actors, and you can use the same actor twice, if you wish."* We hypothesised that Romanian native speakers would choose females for all the four seasons, as well as the natural phenomena the grammatical gender of which is feminine, whereas the choices of the Hungarian speakers would be random or based on entirely different motivations. This test was also applied in the subjects' native language, i.e. either Romanian or Hungarian. After performing the test, a brief interview was conducted with the subjects, in order to gain more insight into the motivations of their choices of "actors".

3. Interpreting the results

Test 1

The first step in interpreting the results of this experiment was to check the correlation between grammatical and imaginary gender for the control nouns. As expected, the man, woman, boy, girl, bride and king received names consistent with their sex in 100% of the

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cases, for both subject groups. The surprising and amusing exception resided in the fact that two Hungarian speakers and one Romanian considered a woman's name to be fit for an ogre. Also, two Hungarians and one Romanian gave the ballerina a man's name. Despite the minor exceptions, the results convinced us that an analysis of the other 40 nouns would yield valid results.

Proceeding to this analysis, we found that the main hypothesis was confirmed: Romanian speakers mostly gave masculine names to nouns of masculine gender, and feminine names to nouns which were grammatically feminine. This was not true in 100% of the responses, but, as the figures below show, each of the nouns on the list received an overwhelming majority of names consistent with its gender.

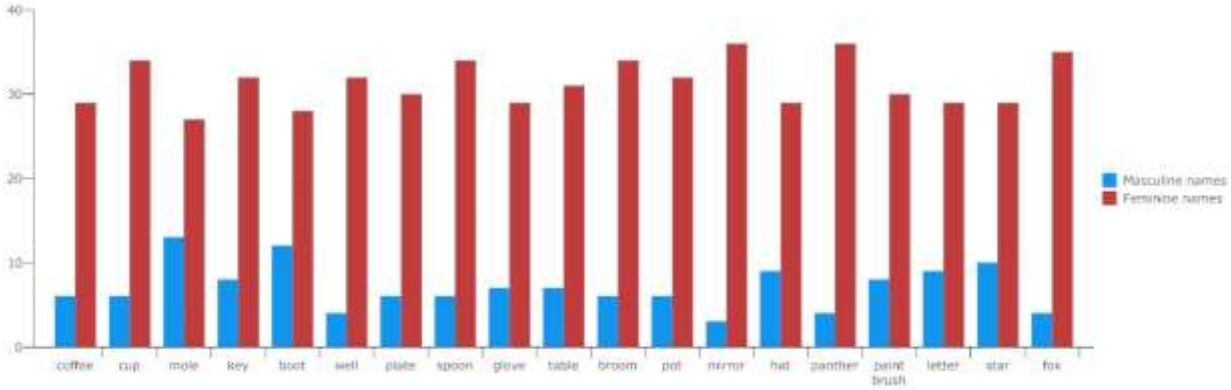


Fig. 1 – The distribution of names for feminine nouns in the Romanian lot

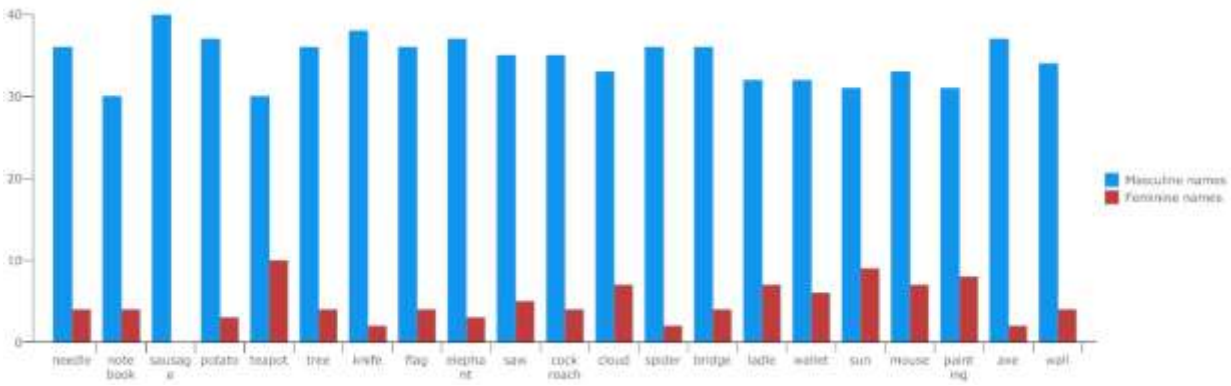


Fig. 2 – The distribution of names for masculine nouns in the Romanian lot

Responses received from the Hungarian lot obviously show a much less pronounced tendency for such coordination. In the case of feminine nouns, the distribution is reasonably close to 50%, with names for masculine nouns being slightly more consistent with the gender of their equivalents in Romanian. Had both groups of nouns received from Hungarian speakers names mostly consistent with their gender in Romanian (but not to such a degree of accuracy as in the case of the Romanian group), we could have concluded this to be the influence of the Romanian language, since all of the subjects in the group live in Romania and are bilingual. However, since this phenomenon only occurred in the case of masculine nouns, this could be attributed either to coincidence or to the fact that the masculine noun list contained multiple words (such as knife, axe, sausage, elephant, spider, wallet etc) which are

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associated with masculine traits or activities in most human cultures, regardless of the existence of grammatical gender.

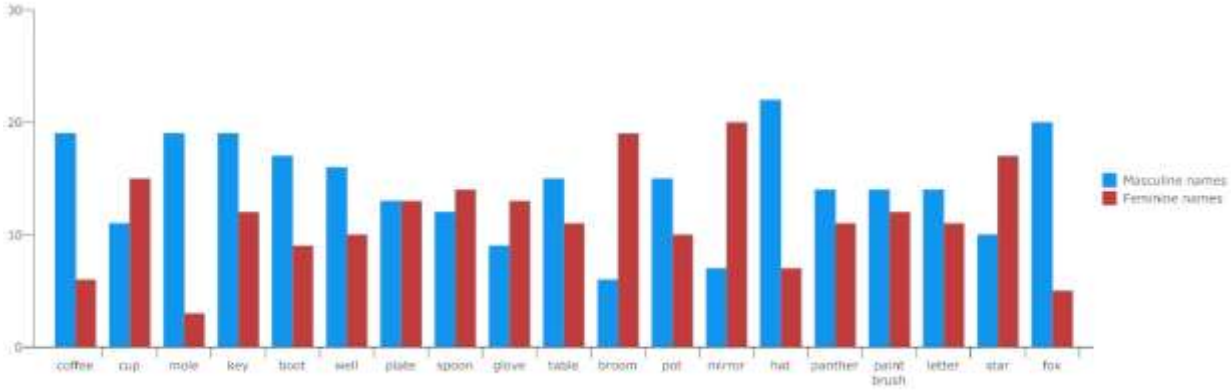


Fig. 3 – The distribution of names for feminine nouns in the Hungarian lot

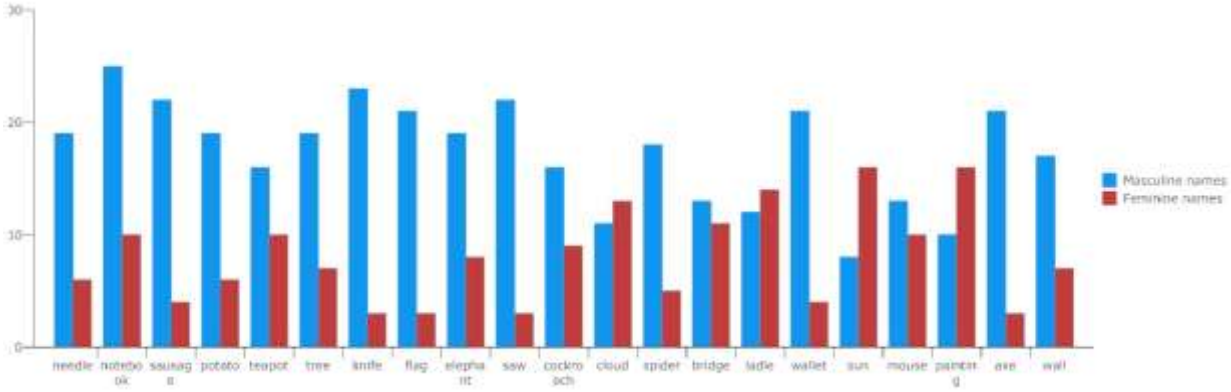


Fig. 4 – The distribution of names for masculine nouns in the Hungarian lot

However, in the case of Hungarian speakers, name distribution was not random at all. Although it obviously did not follow gender considerations, the post-test interview revealed that in many cases subjects attributed names according to the functional characteristics of the object that certain word denoted. If the object was more likely to be used by a female, then it would receive a feminine name and vice versa. For example, a ladle would be named Robert or Patrick by a Romanian speaker, since it was a masculine noun, but it would receive a name such as Ilona or Margit from Hungarian speakers, as it is traditionally considered to form the appanage of female activity. A similar thing happened to the noun "boot", which, being grammatically feminine, was seen by most Romanians as a high-heeled item of the female wardrobe. But Hungarian speakers associated the boot, as well as the hat, to the traditional Hungarian costume, and consequently gave it not only masculine names, but traditional masculine names at that, such as Béla or Janos. It is also interesting to note that for almost 70% of the Hungarian speakers, the sun seems to be perceived as feminine, probably due to its warm, life-giving nature (again, a possible mental reference to its function).

Test 2

In the case of Romanians, in this test, the correlation between grammatical and imaginary gender was maintained, but not as strongly. In all cases, the roles of the seasons

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were given to females, but the correlation weakened for the other phenomena. As the figures below show, gender correlation won again, but this time by a small margin, nowhere near as decisively as in the first test.

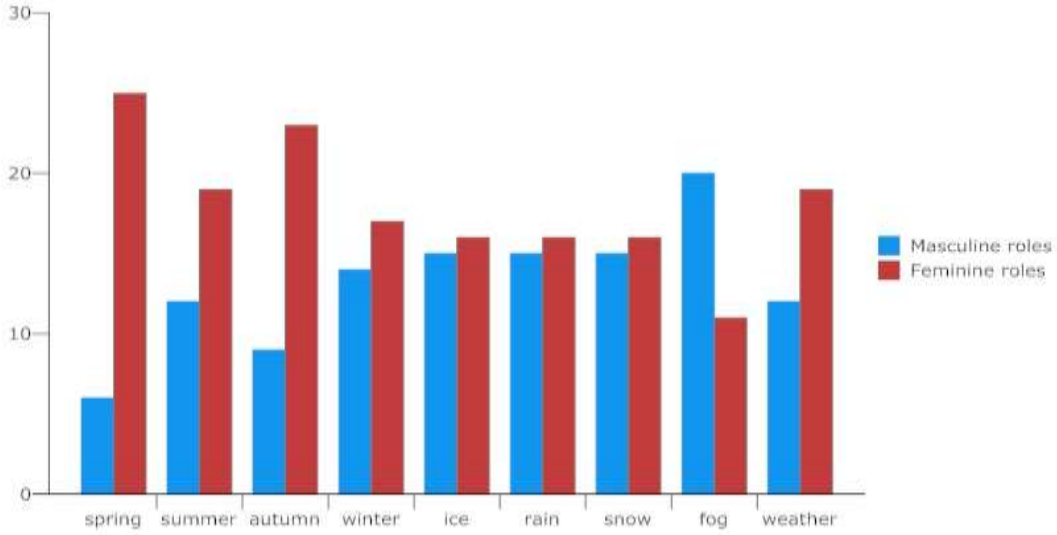


Fig. 5 – Role distribution for feminine nouns in the Romanian lot

It is interesting to note that two nouns (sun and cloud) also appeared on the list used in Test 1. In the first test, the sun was given a masculine name in 77.5% of the cases, while the role of the sun was given to a male candidate in only 60% of the cases. The same happened to the cloud, which received a male name in 82.5% of cases, while in the second test, it was considered to be a male role by only 61% of participants.

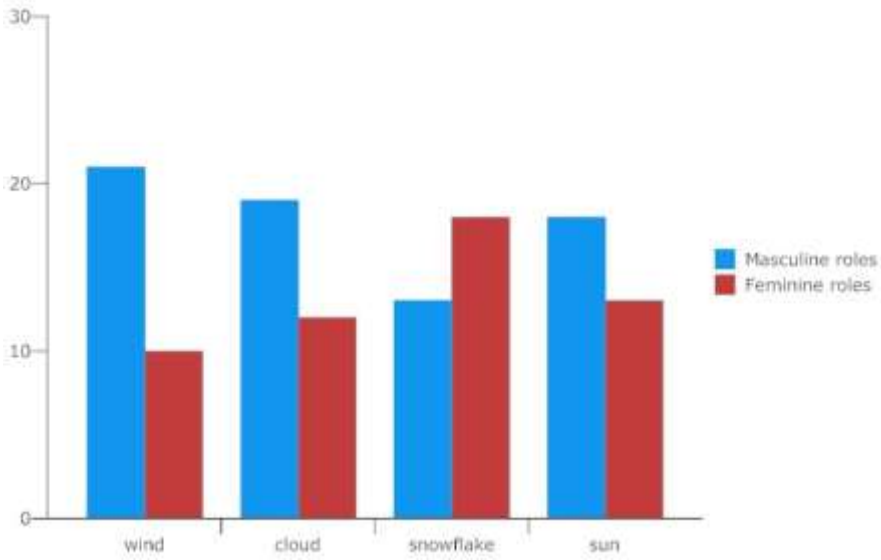


Fig. 6 – Role distribution for masculine nouns in the Romanian lot

Two baffling exceptions occurred as well: the fog, a feminine noun, was perceived as a role suited for a man and conversely, the snowflake, a masculine noun, was given to female candidates in the majority of the cases. The possible causes of this are discussed below.

No significant correlations were found in the case of the Hungarian participants, and the interview revealed a multitude of reasons for making role choices: likeability of a face, the

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fact that it reminded the subject of a significant person or event in their lives etc. Most Hungarians seem to agree however that the seasons are feminine, with the exception of winter.

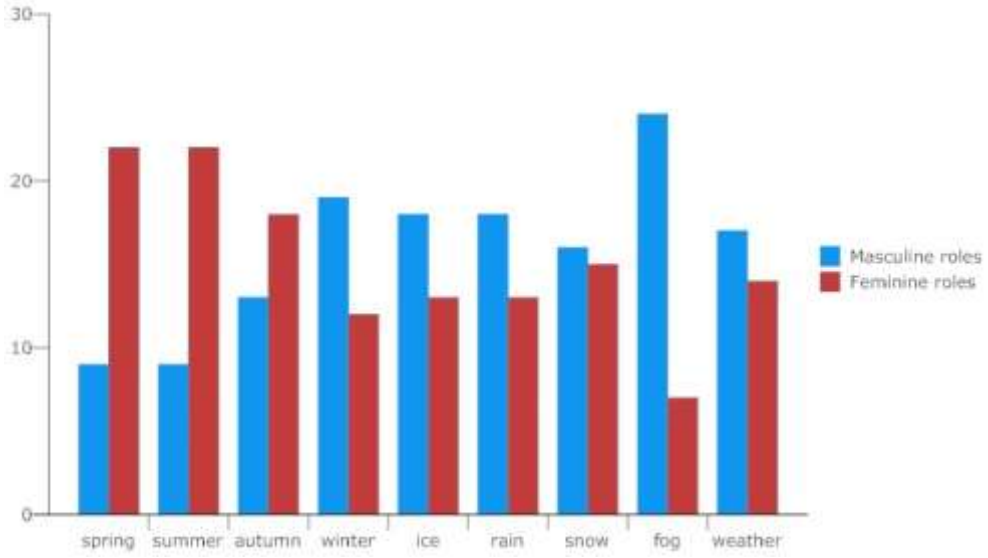


Fig. 7 – Role distribution for feminine nouns in the Hungarian lot

It is interesting to note that this time also, the sun was perceived to be feminine, like in the previous task.

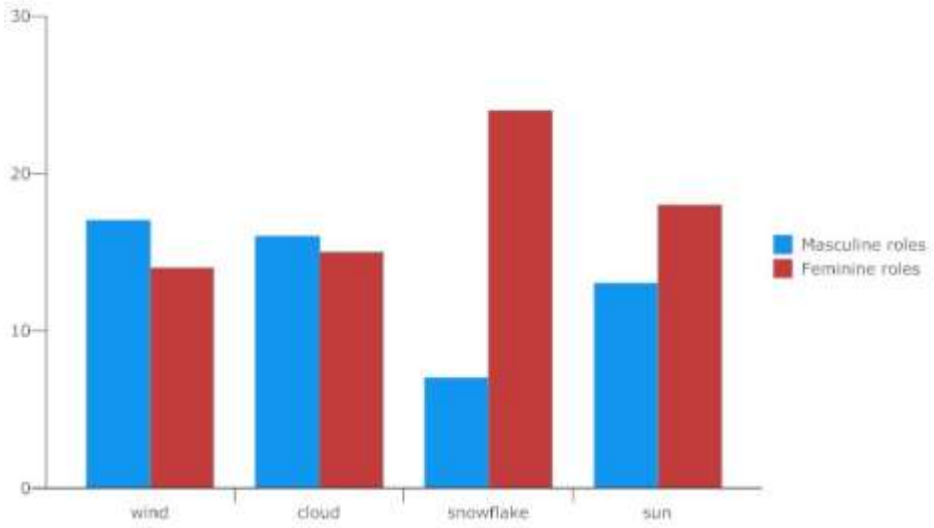


Fig. 8 – Role distribution for masculine nouns in the Hungarian lot

4.1. Exceptions and limitations

When Romanians were asked why they had not given, for instance, the notebook a feminine name, most exclaimed "but it could never be a woman!" However, these interviews revealed that in many cases, emotional affiliation overrides linguistic conditioning. There were some nouns in which grammatical – imaginary gender correlation "won" by a smaller margin that in the other nouns. For instance, when asked to give the sun or star a name, subjects who had children tended to fill in those boxes with their children's names, regardless of whether the child's sex and the grammatical gender of the word „sun" or „star" coincided.

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The words "cockroach" or "mole" elicited a similar response, as many subjects filled in the corresponding box with the name of a person they disliked or despised, regardless of that person's sex. A few of the subjects even felt the need to apologise to the interviewer, stating that they were aware they had filled in the "wrong" name, but that they felt they needed to do so.

The limitation of the second test resided in the introduction of a visual stimulus alongside the verbal one, which has also been found to reduce the influence of grammatical gender on perception. Confronted with the task of choosing the person most visually suited for a certain role in the play, the subjects were overwhelmed by a variety of considerations: giving equal share of the roles to males and females; hair, skin and eye colour matching a certain season or the likeability of a certain face. Faced with possible visual representations of the concepts, forced to reflect on their defining characteristics, the Romanian subjects managed to escape linguistic conditioning to a certain extent, thus reaching the conclusion that, even though the word "snowflake" is grammatically masculine, its delicate, fragile nature made it suited to become a woman's role and, similarly, that a man had better play the role of the gloomy, confusing, dangerous (but grammatically feminine) fog. Still, when asked verbally, most Romanian speakers agreed that the seasons are "definitely girls". The weakening influence that visual stimuli exercise over the influence of grammatical structures on perception also resulted from a previous research, which serves as further proof.[6]

4. Possible applications of the findings

4.1 Language teaching

Nowadays, in the language learning process, language is no longer the only thing which needs to be taught. This is due to the fact that not only vocabularies and grammatical structures differ, but also the concepts expressed by them. There are also cases when both language and concept differ between languages. There are numerous cases when a language learner must acquire a new concept, corresponding to a reality his native linguaculture has no means of encoding or expressing. Even the Common European Framework of Reference for Languages was forced to acknowledge the existence of such circumstances when language learning is not merely learning a new word for a universal concept.

If language significantly influences cognition, if thought patterns differ as much as languages and if language learning is an essential requirement of modern life, then language teaching must evolve so that it overcomes the boundaries of merely determining the learner to use new words for naming realities and communicating with others. It should become a central task of language teaching to identify the respects in which speakers of different languages think differently, to determine whether these are able to be taught, and ultimately to design ways to teach them.

4.2 Translations

It is true that languages encode and represent the world differently. But it is equally true that human beings have the ability to grasp and express anything that usually occurs only

[6] Nemeş A., Jula G., Ormenişan C., Oprean D. – *Consecinţe cognitive ale genului gramatical*, în Academica Science Journal, Studia series, No. (2) 1 – 2013, p. 73-79

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in other cultures than their own. Therefore, translation is not at all impossible, but its truthfulness heavily depends on the translator's knowledge of the source culture and linguistic connotations. To this end, study of linguistic relativity can serve to further expand such knowledge, to the benefit of intercultural communication.

Knowledge of linguistic units takes second place to knowledge of their correct application. The Russian psychologist Vygotsky was aware of the importance of linguistic relativity in translation. He used a very eloquent example, specifically dealing with imaginary gender, referring to two different translations of Heinrich Heine's poem, "Lyrisches Intermezzo - 33. Ein Fichtenbaum steht einsam". The original poem deals with two metaphorical representations of trees: "Der Fichtenbaum" (pine tree), which is masculine in German, and "Die Palme" (palm tree), a feminine noun in German. The pine tree, personified, is presented in a state of lonely longing for the palm tree standing on a distant sunny shore. Due to the poet's use of opposing genders, Vygotsky[7] claims that one tree stands for the masculine principle and the other for the feminine principle, thus the poem's theme being revealed as erotic. One Russian translator, being aware of the poem's meanings, ran into a problem, since both "pine" and "palm" are feminine in Russian. Thus, in order to preserve the poem's theme, he chose to turn the pine tree into a cedar (masculine in Russian), sacrificing literal precision in favour of deeper meaning. Another Russian translation of the same poem, as well as the Romanian version by Ştefan Augustin Doinaş suffer from the common flaw of literal translation, giving the translated poem an entirely different, much more abstract and general meaning. Here is how a seemingly minor change (or preservation) of a grammatical detail may lead to a complete transformation of meaning, and implicitly of perception. The reader of the translation, conditioned by different thought patterns arising from the grammatical structure of his own language, will view the same text in an entirely different light.

Concepts are universal; their conceptualisation is most definitely not. That is why it is the translator's job to achieve cross-cultural transfer of meaning as faithfully as possible, while at the same time being aware of all the connotations, be they conscious or unconscious, for the mind of the target audience, of the linguistic forms he or she may choose to employ. The translator must therefore be intimately acquainted with cultural and subcultural knowledge, as well as the language-conditioned thought patterns of the source and target cultures.

4. Conclusions

The perception of imaginary gender is only a small part of the constellation of manifestations of linguistic relativity. On a daily basis, humans are unwittingly subject to the shaping, directing and sometimes limiting effect which the languages they speak exert on their outlook. Individuals do not just think *in* a language, they think *through* that language, and the consequences of that are seen in every facet of human life, from everyday choices to international communications, to literary expression. Continued research in this vast and

[7] John-Steiner, V., (2007). Vygotsky on thinking and speaking. In Daniels, H.; Cole, M.; Wertsch, J. *Cambridge companion to Vygotsky* (pp. 136-155). New York. Cambridge University Press, p. 145

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insufficiently explored field is essential for a better future understanding of the way humans think and communicate.

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