SEMANTIC EXTENSION OF "HUMAN COLORS" WHITE, PALE AND GRAY

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Abstract. *The paper considers adjectives white, pale and gray, used as color adjectives to characterize man, as well as their relationship with the adjective white in the Serbian language. These "human color" adjectives have somewhat different extensions compared to the adjective white, and this is frequently manifested in their inability to realize themselves within certain grammatical structures, in which it is still possible to realize the adjective white. With the use of the conceptual integration theory, an attempt has been made to explain the relationship between the semantic extensions of these adjectives.*

Key words: *The Serbian language, color adjective, human color adjective, conceptual integration theory, semantic extension.*

1. INTRODUCTION

The paper presents an analysis of the adjectives *white* (as a "human color"), *pale* and *gray* in relation to the adjective *white* in the Serbian language. There are semantic differences between these three adjectives and the color adjective *white*, which is also confirmed by the fact that they are not interchangeable in certain grammatical structures. This phenomenon indicates the fact that these three adjectives have a smaller semantic range when compared to the adjective denoting the color *white*. We also wished to verify this fact with the aid of the conceptual integration theory.

2. HUMAN COLORS

The term "human colors" was first mentioned in Serbian linguistics by academic Milka Ivić[1] in her linguistic experiments, drawing attention to the special use of adjectives for primary colors (blue, red, yellow) when people are concerned.

"The "Human colors" here entail color designations that may be characteristic of human beings – their skin, their hair, their eyes, their nails."[2]

This specificity is arguably constituted by the fact that, in the material, visual sense of the word, the same color designation, i.e. its name, is considerably different when it relates to an object versus when it relates to a person.

In the examples of the following type:
The skirt is blue (Serbian: *plava);*
Milica is blonde (Serbian: *plava);*
these are not the two same color designations and every Serbian speaker clearly knows that the blue skirt is that of the color similar to the color of a clear sky, while Milica's hair is actually of the color that ripe wheat has, i.e. yellow.

Ivić (Ivić, M. 1995: 28-29) cites that "...the color designation of people and things are two different phenomena..." which is why it can be said:...*The skirt is blue. Her hair is brown.* as well as: *The skirt is blue. her hair is brown*, while the following is not possible: **Milena's color is blonde, and Vasa's is brown.* Only: *Milena is blonde, and Vasa is brown-haired.*"

In a linguistic experiment entitled "On the Verbs Derived from "Human Colors"" (Ivić, M. 1995: 47) Prof. Ivić claims that special semantic realization is followed by a special form of the lexical and grammatical behavior of these lexemes:

- "...expressions like ginger, brown, swarthy and blonde are today perceived primarily as lexical markings of certain color types of people.... none of these expressions has appropriate verbal derivatives, unlike all the other adjectives used to designate a person according to color (black – turned black, pale – turned pale, ruddy – turned ruddy, red – turned red, blue/livid – turned blue/livid, yellow – turned yellow, green – turned green, but not: ginger - *turned ginger, brown-haired - *turned brown-haired, swarthy - *turned swarthy, blonde - *turned blonde = "became blonde"."[3];

- There is also a difference between adjectives: white, black, ruddy and adjectives pale and gray. " For example, it can be said that teeth are *white* as well as that they *shine white*. (*Her teeth shine white*), that the cheeks are not only *ruddy*, but also that they have a *ruddy glow* (*Her cheeks have a ruddy glow*), while the face is only described as *pale*, and the hair as *gray,* but never **it shines pale*, or **it shines gray* (**Her hair shines pale. *Her hair shines gray*)."[4]

3. Conceptual Integration Theory

Conceptual integration theory dates back to the nineteen-nineties in the works of Gilles Fauconnier and Mark Turner.

Fauconnier and Turner define the concept of mental space as small conceptual packets formed when we think and speak. They represent dynamic categories and are subject to

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[1] Ivić, Milka 1995: 42.
[2] Ibid: 47.
[3] Ibid: 48.
[4] Ibid: 49.

change. "...small conceptual packets constructed as we think and talk, for purposes of local understanding and action... They are interconnected, and can be modified as thought and discourse unfold. Mental spaces can be used generally to modal dynamic mappings in thought and language" (Fauconnier, Turner 2002:40).

The theory of mental spaces was considered to be the origins of Conceptual Integration Theory and this theory was later supplemented and renamed as conceptual integration theory (Fauconnier, Turner 1997, 1999, 2002). Most linguists consider that conceptual metaphor theory (Lakoff 1980) and conceptual integration theory are opposing theories; however, there are linguists who claim otherwise, such as Matovac, Tanacković Faletar (2009) who state that these two theories are: "final points of the same continuum" (Matovac, Tanacković Faletar 2009: 150).

The chief differences between these two theories are the following:

1. conceptual metaphor theory has a twofold approach. The twofold approach describes the connection between abstract and concrete terms, and in that way, we are able to describe abstract terms through concrete ones; while conceptual integration has a fourfold one: the first entry space, the second entry space, generic space, projection space.

2. with the use of the conceptual metaphor theory, it is possible to explain a greater great deal of abstract concepts and figurative meanings (contradictory meanings, grammatical analogies, conceptual changes etc.).

While using conceptual metaphor theory, it was shown that certain figurative meanings cannot be explained in this fashion. This need had led to the creation of a fourfold approach, such as the conceptual integration theory.

Conceptual integration theory includes at least four domains (mental spaces) i.e.:

1. the first two entry spaces

2. generic space;

3. projection space (blend).

The two entry spaces are close and could be equated with the source and target domain in the conceptual metaphor theory. In the generic space, common elements of the two entry spaces are reflected, and the blend entails the unification process of entry spaces through which new content is formed.

Conceptual integration theory assumes that elements of two or more conceptual packages merge (blend), creating a qualitatively new and structurally higher conceptual package (blending space). The new space (blend) is not a simple set of common elements of entry mental spaces. It is important for it to form a new, higher and more complex hierarchical structure, which occurs at the integration process. This refers to the basic fourfold model, but it is only the basic unit that continues to form links in networks of such models (semantic network). For example, Zoltan Koevecses (Zoltan Koevecses 2006: 276) notes a difference between the following: simplex networks, mirror networks, single-scope networks, double-scope networks and multi-scope networks.

Unlike the conceptual metaphor theory, which is primarily a semantic theory, the conceptual integration theory aims to be a general theory of cognition, applicable to different domains. It is a theory that attempts to become a viable macrostructure, which could link cognitive science and explain the sense of human creativity (Antović, Tasić

2011: 1522). This specific theory is used in other scientific fields such as anthropology, theory of literature and many others.

4. ADJECTIVES *WHITE*, *PALE*, AND *GRAY*

The following analysis of adjectives *white*, *pale* and *gray* is based on conceptual integration theory and, in this case, seeks to explain the differences in the apparent semantic extension of these adjectives. The analysis included individual lexemes and their semantic structures, as simple examples in which the network structure model and mental space model are also simpler. These are the following lexemes: *white* (color designation), *white* (white as a "human color"), *pale*, *gray*.

Specifically, it is noted that these adjectives are not interchangeable in all contexts, which indicates the fact that only a part of their semantic content match, and that their individual parts are related only to certain lexemes.

Beo, -a, -o (*white*) (color designation): **beo, -a, -o** (*white*) (white as a "human color").
MP1 – color of milk, snow; 1. one that wears a white uniform, i.e., counterrevolutionary, opponent of the communist revolution; 2. chess player who uses white pieces; 3. player wearing a white jersey; 4. whiteness, white suit; 5. (only det.) integral part of a name, most frequently of plant and animal species: white pine, white ash, onion (in Serbian: *beli luk,* i.e. white onion), white bear, white meat; 6. white foam, white bales; 7. white of the eye; 8. gray; 9. light blue; 10. shiny, bright; 11. silvery, light shade (of metals); 12. shiny, white because of scorching heat; 13. fig. bright, happy; 14. looking beautiful and good, optimistic; 15. good; 16. serene, peaceful, safe; 17. chaste, innocent, bright, honorable; 18. empty, erased as a result of censorship; 19. empty, without pips (of dominoes)[5].
MP2 – white referring to skin and complexion of a person, meaning light.
MP3 – color of milk, snow, light color.
MP4 – white referring to a light color when related to the skin and complexion of man.

All the meanings of the adjective *white* that can be realized in the Serbian language are stored in one entry space—long-term memory. The working memory will contain only those meanings that have some similarities with the second space. In the second entry space, the color value of the white color is linked to the specific matter from nature, human skin, complexion. The generic space will include elements that are common to the entry spaces: white as a color designation, white as a color that characterizes brightness. The projection space (blend) gives us skin color and complexion of people, as a notion, which is characterized by brightness.[6]

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[5] Meanings of the adjective *beo, -a, -o* (*white)* were taken from the Six-Volume Serbian Dictionary of *Matica srpska.*
[6] The skin color and complexion of Caucasians is closest to white color, while it is actually skin and complexion of an exceptionally light shade, exceptionally when compared to the skin color and complexion of other human races.
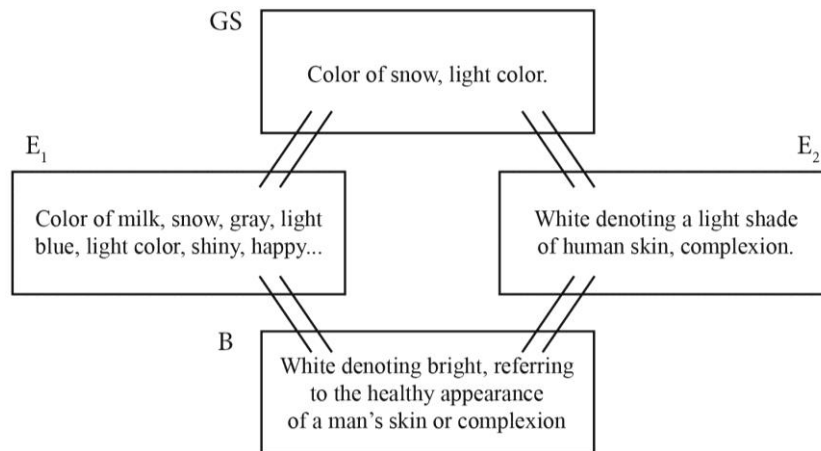
Diagram 1 Beo, -a, -o (*white*) (color designation);
beo,-a,-o (*white*) (white as a "human color").
E – entry space, GS – generic space, B – blend

White hand, white skin: *Šumanović turned white* (pale in the face)
White face: pale in the face.

Examples:

*"Father's room was up there, above the overgrowth. I was allowed to enter it only twice per year, on two Bayrams, to bow and kiss his **hand,** which was lovely, **white,** gentlemanly. Now, that also seemed like a dream"* (T, 32);

*"...scattered her blonde hair on the pillow, her **skin** was **white**, in August, the whole summer had passed without swimming and sunbathing"* (OODBM, 61);

*"He joked around, mercilessly, when Šumanović **turned white**, broken, and looked through him and me, as well as through the walls, over the heads that had gathered there"* (BP 65).

MP1 – light, clean skin is white skin. (Uniform lightness of a person's skin indicates the stable condition of the organism, a healthy organism, and this lightness is characteristic of body parts). Adjective *white* appears in the meaning of *bright*, so light skin and complexion express a healthy organism, thus the positive meaning.

MP2 – when a man is white (usually in the face) or turns white[7], this emphasizes the state which occurs as a result of some additional factor, such as a blockage in circulation or unnatural circulation of blood as an indicator of an unnatural and unhealthy state.

MP3 – the projection space starts from the common denominator for both entry spaces, i.e. adjective *white*. White means bright (MP1), white signifies the color of milk, snow (MP2).

MP4 – pale Šumanović is in poor physical and mental state, in a certain negative physiological or emotional state.

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[7] The verb ***pobeleti*** (**turn white**) (long rising accent on *e*) means to become white (RMSJ, 938). The prefix **po-** added to verbs with an adjectival base (like *beleti (whiten), crveneti (become red)* etc.) means to become white or red to the greatest possible extent, i.e. get the color of milk, snow, blood etc.

In the generic space, there is a comparison between the knowledge gained from experience of the prototype scenario concerning the appearance of a healthy person: unpronounced discoloration of the physiognomy, clear skin without spots or wounds, uniform colors concerning the condition of the skin, which suddenly turns excessively white. This sudden whiteness is indicated by the prepositional phrase – case structure *in the face* where preposition *in*[8] is used to indicate location, assuming that something is located in a closed space. The exaggerated color (turned white) indicates a certain deviation, disruption of the prototype of a healthy appearance. In the projection space (blend), this results in the conclusion that the man who turned white has a sick, unsightly appearance. The prefix **po-** *(in English: turned)* indicates a greater degree of color, by adding the color in an amount that is greater than usual.

White (healthy, clean, light, uniform) – emphasizes white, too white (indicator of the physiological or psychological state).

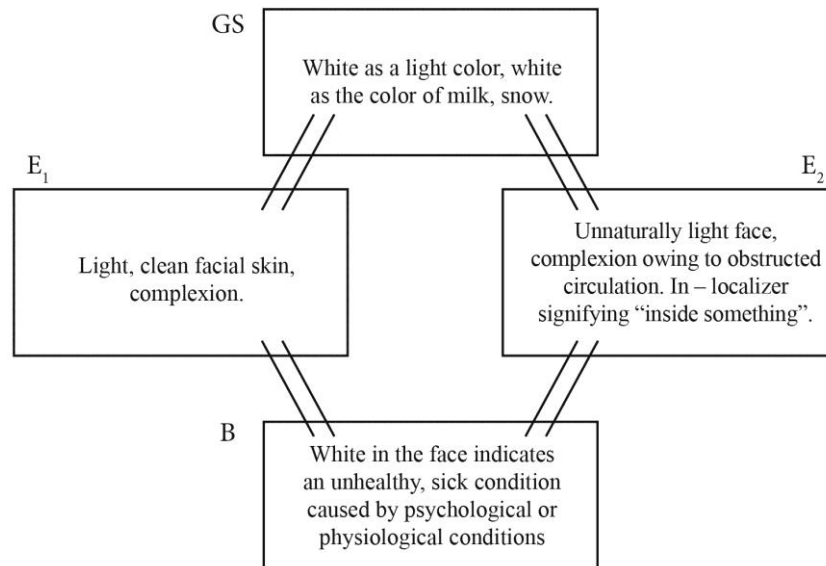Concept (prototype scenario) – disrupted prototype scenario.

GS

White as a light color, white as the color of milk, snow.

E₁

Light, clean facial skin, complexion.

E₂

Unnaturally light face, complexion owing to obstructed circulation. In – localizer signifying "inside something".

B

White in the face indicates an unhealthy, sick condition caused by psychological or physiological conditions

Diagram 2 White hand, white skin: Šumanović turned white (pale in the face).
E – entry space, GS – generic space, B – blend

White face: white in the face.
Pale[9], gradually turn pale, turn pale, to pale (grow pale)
Gradually turn white – gradually turn pale.
Get a light color – lose natural color.

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[8] In – preposition denoting location signifies that something is located inside something else, within the scope of something (RMSJ, 1359). This is also the first meaning cited by the single-volume Serbian Dictionary of *Matica srpska*.

[9] **Pale** – 1.a. one who is without a natural ruddiness, without the color of life; b. light, whitish; в. having a lower brightness, shining less brightly. 2. fig. expressionless, inexpressive (RMSJ, 93).

To pale – turn pale; a. lose one's ruddiness, natural color (of a face, of man); b. lose color, lose intensity (of color); c. lose one's shine; d. become less intense, fade (RMSJ, 93).

*"My husband **gradually turned white**, his hand, wrapped around mine, tuned cold..."* (L, 25);

*" Even Šumanović's cumbersome head suddenly **turned pale**, and somehow shrank"* (L, 64);

*" East of the **pale** newcomers ..."* (OCSS, 70);

*" The count disheartened. The Margrave **grew pale**"* (OCSS, 73);

*"...**pale** and hunched wretched lot who sought in narcotics what they could not find in life, and this was why they consumed hashish, smoked or ate opium and stopped before nothing..."* (PA, 16);

*"The young man's face, soft, slightly swollen, **white** and **pale** with a characteristic **paleness**, different from what could be expected here, covered by a ginger, fluffy ten-day beard and drooping, light colored moustache"* (PA, 46);

*"I opened my eyes, and his **body, pale** in the dark, had already been hanging on the strings pulled by death"* (C, 68);

*"He lay illuminated with an unearthly **paleness**, more beautiful than ever"* (KH, 14);

*"Her **face** was **pale**, eyes closed, lips clenched and bloody"* (T, 12);

*"**Pale**, thin, with yellow eyelids, he seemed to be on his death bed"* (T, 20);

*"I am ill, but it does not matter, I will fall in the street, be taken home, to bed, I will lie with my eyes open, **pale,** exhausted, without any criticism to make, without a word of complaint"* (T, 85);

"She startled and **turned pale**" (LG, 36);

*"Now all this caught up with me from above, **with a pale stare**, looking at a stranger it had never seen before"* (LG, 66).

Disrupting the concept of the prototype moves in two directions: excessive emphasis of light skin as an indicator of the poor condition of the organism, as well as losing natural, usual color.

MP1 – concept of light skin as healthy and esthetically acceptable.
MP2 – skin that loses physiological color, gets a milky color, color of snow.
MP3 – light skin, prominent whiteness.
MP4 – pale face, man who grows pale, pale head – unhealthy, undesirable, negative.

In the entry spaces, we have a healthy appearance, full of life, and conversely one that is without the natural color, i.e. color of life. Elements that are common to the entry spaces, *i.e.* lightness, appear in the generic space, as both appearances of the skin and complexion are characterized by lightness. In the blend—pale skin is unhealthy skin, pale appearance is an unhealthy, ill appearance.
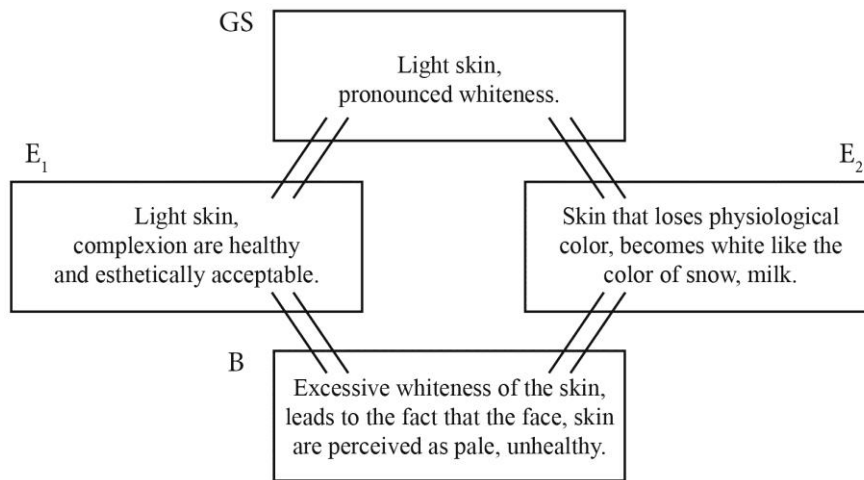
Diagram 3 Turn white: turn pale. Skin and face turn white. Skin, and face are pale.
E − entry space, GS − generic space, B − blend

Gray, turn gray: white, turn/shine white

Gray hair is hair that loses pigmentation or has completely lost it. Therefore, it is white and related to the aging process. *Gray* meaning 'the one who gets older; the elderly' can be found in the following examples:

*" ... the one who came to meet them was a big elderly man, dressed in a fur coat, with completely **gray hair** around the hat which was much too small..."* (OCSS, 72);

*"The **gray-haired** man was no different from the adults who thought that children cared for nothing else but play"* (Б, 41);

*"The **gray-haired** man could not have been the reason for this"* (B, 67);

*"Only the elderly **gray man** with a fresh wound on his temple truly looked unsightly"* (B, 64);

*"..a big **gray-haired** man from economy class protested..."* (B, 78).

The metaphoric transfer in which the trees seem *gray*, was obtained based on the visual effect of the light leaves on a dark background:

*"The birches. Something must have hit them hard from above as everyone's head was severely wounded. In the end, the black turf had turned into a swamp due to some invisible waters, and one poor tree, stuck in this black pit, with its colorless, hungry leaves, seemed **gray**[10]"* (PIN, 91).

MP1 – Man with white hair, color of snow, milk.
MP2 – Man whose car has lost pigmentation.
MP3 – White color, light color.
MP4 – A gray-haired man is an elderly man.

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[10] Meaning obtained through the mechanism of metaphor, the trees grow white just as people grow white when they get older.

GS

White color, light color.

E_1

Man with white hair,
color of snow, milk.

E_2

The hair loses natural
pigmentation, color when
a man grows older.

B

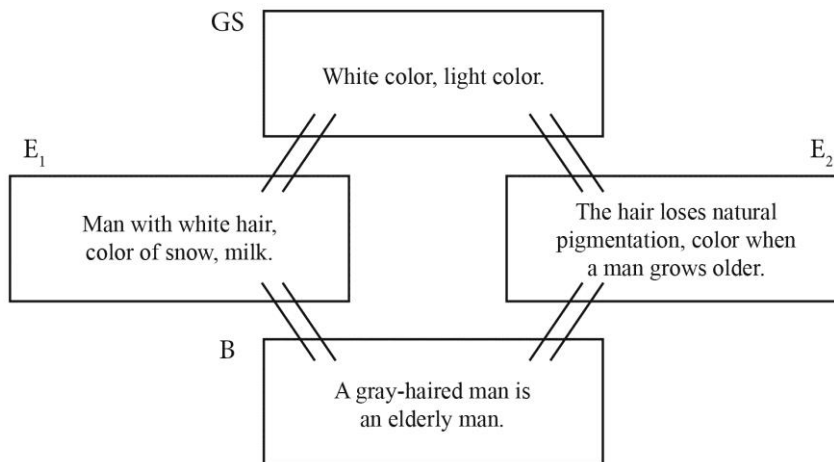A gray-haired man is
an elderly man.

Diagram 4 Gray, turn gray: white, turn/shine white.
E – entry space, GS – generic space, B – blend

In the entry spaces, there is a man whose hair is white, i.e. the color of snow, milk. The hair loses pigmentation, and the man loses vigor as he grows older. The generic space entails what is common to gray and white hair, which is the color of milk, snow, i.e. a light color. Both white and gray hair are signs of growing older due to the loss of natural pigment .

However, *the hair shines with a white glow*, but *the hair shines gray* is ungrammatical in Serbian.

Her hair shines with a white glow: *Her hair shines gray (turn/shine white[11] :turn gray[12])

MP1 – to turn white originates from the word white and means to become white, glow, lose color; to turn white means activity, getting to the stage of total pigmentation loss.

MP2 – turn gray is derived from gray and means become, be gray; it entails a process which is reaching completion; therefore, it is more a result of a process, a state.

MP3 – hair which has lost its natural pigmentation.

MP4 – shine white (because, apart from turn gray, it can mean to shine, be conspicuous owing to white color, can be used in the structure *her hair shines with a white glow* (is conspicuous owing to its whiteness)) – shine gray (owing to the narrow semantic range, it is impossible to use it in the structure * *her hair shines gray*).

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[11] Turn/shine white – 1.a. become white; b. become gray; в. lose original color (of a cloth); 2.a.become light, visible; b. be conspicuous owing to white color; c. shine, glow with whiteness, shine (RMSJ, 74).
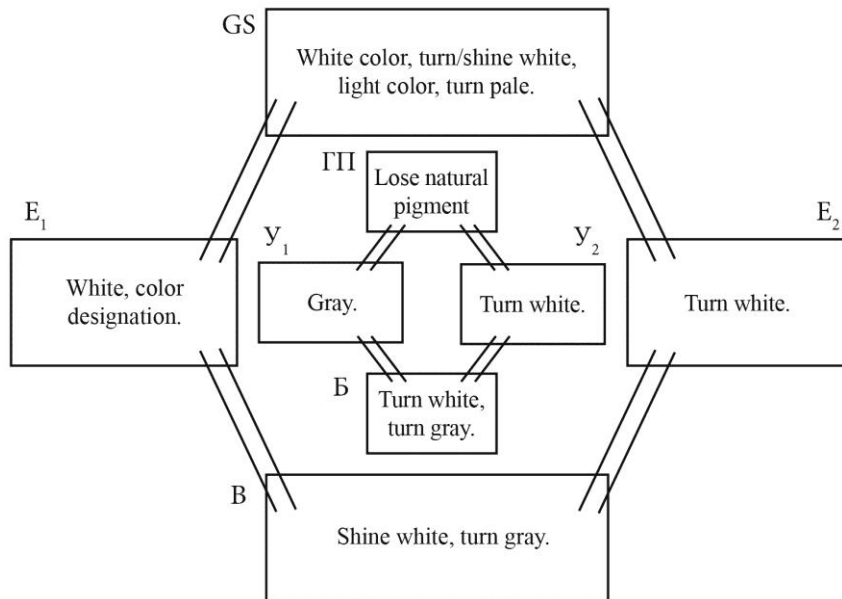[12] Turn gray – become gray (RMSJ, 1209).

Diagram 5 Her hair shines with a white glow:
* Her hair shines gray (turn/shine white[13]:turn gray[14])
E – entry space, GS – generic space, B – blend

5. CONCLUSION

The semantic classification of these adjectives is in the shape of a pyramid. On the top, the adjective *beo, -a, -o (white)* is highest in hierarchy as an adjective which determines the color designation. Below it, there is the adjective *beo, -a, -o (white)* as a "human color", which has narrowed semantics, which is based on the visual impression produced by the white color, and this is light color, lightness. Adjectives *pale* and *gray* have an even more narrowed semantics. Pale relates to the skin and complexion in man, and is primarily related to losing natural color (skin color of man in this instance). The adjective *gray* also has a narrowed semantics in relation to *white* as a "human color", as it primarily means losing one's natural pigment (natural hair color), which results in color that is almost white.

If grammatical structures are considered, the adjectives of a wider semantic range may replace those from a hierarchically lower position, but not vice versa.

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[13] Turnshine white – 1.a. become white; b. become gray; в. lose original color (of a cloth); 2.a.become light, visible; b. be conspicuous owing to white color; c. shine, glow with whiteness, shine (RMSJ, 74).
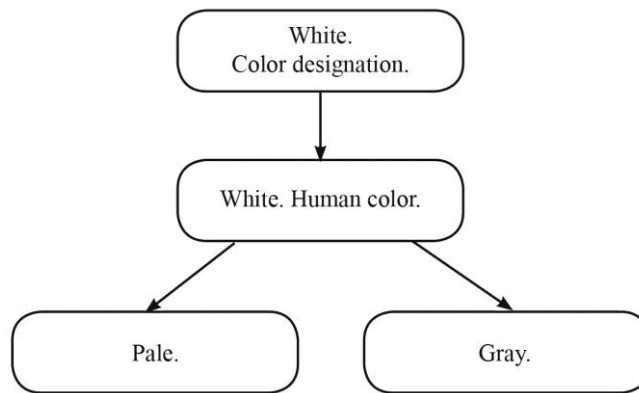[14] Turn gray – become gray (RMSJ, 1209).

Diagram 6 Semantic extension of adjective *beo, bled, sed* (*white*)

WHITE ....White (related to man, white as "human color").

　　　　　　White (human color) .... gray and pale.

　　　　　　White (human color (light)) : turn white (white)(human color (color of milk, snow)). (The same way as adjectives white, gray and pale, behave the adjectives red, blush and red (hair) and it would be interesting to study also adjectives blue, blonde and,dark blue.

BIBLIOGRAPHY

Antović M. & Tasić M., (2011), *Muzika na granici i teorija konceptualne integracije: analiza jedne pesme sa juga Srbije.* **(Music on the Border and Conceptual Integration Theory: Analysis of a Song from the South of Serbia), TEME** 35 (4), 1521-1542.

Dragićević R., (2010), *Лексикологија српског језика (Lexicology of the Serbian Language),* Beograd: Zavod za udžbenike.

Fauconnier G., (1997), *Mappings in Thought and Language,* Cambridge: University of Cambridge.

Fauconnier G., Turner M.,(1999), *Metonymy and Conceptual Integration*. Panther, Klaus-Uwe, Gunther Radden, ed. Metonymy in Language and Thought. Amsterdam-Philadelphia: John Benjamin Publishing Company, 77-91.

Fauconnier G., Turner M. (2002), *The way We Think-Conceptual Blending and the Mind's Hidden Complexities,* New York: Basic Books.

Ivić M., (1996), О изразима плав и модар (On Expressions with Blue and Livid), Beograd, Južnoslovenski filolog.

Ivić M., (1995), *О зеленом коњу (On the Green Horse),* Beograd: Slovograf, Novi lingvistički ogledi.

Kovecses Z.,(2006), *Language, Mind and Culture: A Practical Introduction.* Oxford: Oxford University Press.

Lakoff G., Johnson M., (1980), *Metaphors We Live By,* Chicago – London: The University of Chicago Press.

Lakoff G., Johnson M. (1987), *Women, Fire and Dangerous Things: What Categories Reveal About the Mind,* Chicago: University of Chicago.

Matovac, Tanacković Falatar (2009), *"*TCM I CIT – dvije suprotstavljene teorije ili krajnje točke istoga procesa?*" (TCM and CIT – Two Opposing Theories or Final Points of the Same Process?)* Jezikoslovlje 10-2, Osijek, 133-151.

SOURCES WITH ABBREVIATIONS

RMSJ (2007) – *Rečnik srpskog jezika* (*Dictionary of the Serbian Language),* Matica srpska, Novi Sad.
B – Pekić B.,(2002), *Besnilo (Rabies)*, Solaris, Novi Sad.
BP – Kiš D.,(1995), *Bašta, pepeo (Garden, Ashes),* BIGZ, Beograd.
KH – Crnjanski M.,(1966), *Kod Hiperborejaca (With the Hyperboreans),* Sabrana dela Miloša Crnjanskog, Prosveta Beograd, Matica srpska Novi Sad, Mladost Zagreb, Svjetlost Sarajevo, Beograd, 1966.
L – Velmar-Janković S., (1991) *Lagum (Underground Tunnel)*, BIGZ, Beograd.
LG –Lalić M., (1990), *Lelejska gora (The Mountain of Cries)*, Svijetlost Sarajevo.
OODBM – Radulović J., (2008), *Od Ognjene do Blage Marije (From Fiery Mary to Kind Mary),* Savremena srpska proza knj. 6, Evro-giunti, Beograd.
OCSS – Petrović M., (2004), *Опсада цркве светог Спаса (Siege of the Church of Holy Salvation),* Politika, Narodna knjiga, Beograd.
RA – Andrić I., (1989), *Prokleta avlija (The Damned Yard),* Svjetlost Sarajevo, Prosveta Beograd, Sarajevo.
T – Selimović M., (2007), Tvrđava (Fortress), Logos art, Beograd.

SEMANTIČKA EKSTENZIJA "LJUDSKIH BOJA" BEO, BLED I SED

U radu se razmatraju pridevi beo, bled i sed kao pridevi koji po boji karakterišu čoveka i njihov odnos prema pridevu beo u srpskom jeziku. Ovi pridevi "ljudskih boja" imaju nešto drugačije ekstenzije u odnosu na pridev beo i to se često manifestuje njihovom nemogućnošću da se realizuju u okviru nekih gramatičkih konstrukcija gde je moguće realizovati pridev beo. Pomoću teorije konceptualne interacije pokušava se objasniti odnos semantičkih ekstenzija ovih prideva.

Ključne reči: *srpski jezik, pridev za boju, pridev za ljudske boje, teorija konceptualne integracija, semantička ekstenzija.*