

## PERCEPTIONS OF UNIVERSITY STUDENTS ABOUT CORONAVIRUS: A METAPHOR ANALYSIS STUDY

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**Abstract:** The aim of this study is to analyse university students' perceptions about the Coronavirus concept through metaphor analysis. The data were obtained from 186 students studying in the Education Faculty of a university. Phenomenology research design, one of the qualitative research patterns, was used in this study. The data obtained in the study were collected with the expression "Coronavirus is like...because..." and document analysis technique was used in the analysis of the data. It was found that the students who participated in the study created 133 well-structured metaphors related with the concept of coronavirus. According to the results obtained from the study, it was found that students mostly created negative metaphors about the concept of coronavirus. The metaphors created by the students who participated in the study were grouped under 11 conceptual categories as "being contagious, causing damage / being fatal, being hidden, being unifying / regulating / leaving positive effects on people, affecting large areas / the process covering a large period of time / changing life and affecting everyone equally, isolation, taking measures, social distance, emotions, restriction, uncertainty". Based on the metaphors created by the students, it was found that the concept of Coronavirus was explained with more than one and different metaphors.

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## INTRODUCTION

Humans, one of the living beings in nature, are born, grow and die in accordance with the flow of life. There are many different causes of human deaths and one of these causes is epidemic diseases. If these epidemics become global, they can become pandemic.

World Health Organization (2010) defines pandemic as large scaled epidemics which affect millions of people in more than one country and which sometimes spread to the world. In order for a virus or bacterium to cause a pandemic, it must be an organism for which most people do not have a pre-existing immunity, transmitting easily from person to person and causing severe illness (Taylor, 2019). In the history of the world, people have had to deal with many pandemics and have suffered from serious losses. Coronavirus is one of the leading viruses that cause pandemic. Coronavirus, which is derived from the word corona that means “crown” in Latin, causes respiratory tract infections that can be fatal in humans (Alpago and Alpago, 2020). Humans have recently had to deal with viruses such as SARS and MERS, which are deadly varieties of the Coronavirus. Today, humanity is struggling with the novel coronavirus Covid-19, which has a very high spreading rate and which has affected almost the whole world.

According to Centres for Disease Control and Prevention (2020), Covid-19, which is a novel coronavirus not previously described among humans, is not the same as coronaviruses which are widespread among people and which cause mild diseases such as cold. The novel coronavirus, which was first described in the Wuhan region of China in December 2019, was named as Covid-19 by World Health Organization on February 11, 2020. Various symptoms ranging from mild symptoms to severe diseases have been reported in individuals with COVID-19. The symptoms may appear 2-14 days after being exposed to the virus. Some of the symptoms that may appear in Covid-19 patients have been defined as cough, shortness of breath, fever, shivering, muscle pain, loss of taste and smell (Centres for Disease Control and Prevention, 2020). Due to the fact that the spread of novel Covid-19 is very fast, the disease

courses very severe in some individuals and no cure or vaccine has been found yet, all countries of the world are taking various measures against the disease and lifestyles of humans are changing seriously.

Official authorities of all countries, especially the World Health Organization, are making various warnings and recommendations to people through mass media. Since the treatment and vaccination of Covid-19 is not found yet, explanations made generally include protective measures such as social distance, social isolation, hand hygiene, general hygiene rules, wearing mask, etc. (Waadod et al., 2020). Although general policies, health systems and health workers of countries have a very important place in dealing with this disease, they won't be enough alone. It can be said that the behaviours of the people of the country will be effective on the novel coronavirus. Human behaviours are influenced by knowledge and perceptions (Geldsetzer, 2020). At this point, it can be said that the perceptions of people about the concept of coronavirus have a very important place in terms of the course of the disease in the upcoming days. One of the ways that reveal how a concept or phenomenon is perceived is metaphors (Aydm, 2011).

Metaphor is a figurative structure created by establishing a relationship by comparing the differences and similarities between two concepts or objects and transferring one to another (Palmquist, 2001). According to Saban (2008), metaphors, in which a specific mental schema is reflected on another mental schema by establishing relationship between two phenomena that are not similar, are a mentally powerful model. Metaphors which serve very different purposes are highly effective in organizing information for societies and individuals (Cameron, 1996). When studies conducted are examined, it can be seen that metaphor studies are used in very different areas, especially education and they are important in showing the perceptions of individuals about specific concepts.

In this context, it is thought that it will be meaningful to analyse novel coronavirus, which directly or indirectly affects the lives of millions of people in the whole world, through metaphor analysis. It was thought that especially the young people studying at the university, due to the closure of the universities, were greatly affected

by this process. It is expected that the result of the metaphor analysis conducted will give some clues about what kind of changes coronavirus will cause in the lives and psychological states of individuals in young adulthood and about how young people perceive coronavirus. In this study, while the concept of coronavirus is addressed through the eyes of university students, the study is also considered to be important in terms of reflecting what kind of mood students have about this epidemic. The primary aim of this study is to find out the perceptions of university students about the concept of coronavirus. The problem of this study is the question “What are the metaphor perceptions of university students related with the concept of coronavirus? In order to be able to give more detailed answers to this problem, the following problems were reached:

1. What are the metaphors created by university students about the concept of coronavirus?
2. Under which categories are the metaphors created about the concept of coronavirus collected?
3. From which themes are the metaphors created about the concept of coronavirus chosen?
4. What are the meaning characteristics of the metaphors created about the concept of coronavirus?

## METHOD

### RESEARCH MODEL

In this study, phenomenology, one of the qualitative research designs, was used. Phenomena are perceivable events that can be experienced by individuals. According to Creswell (2013), a phenomenological study describes a common meaning created by individuals' expressing their experiences about a phenomenon or concept with words.

### STUDY GROUP

This study was conducted on 186 students studying at the Education Faculty, Turkish Education Department and Psychological Counselling and Guidance Department of a state university during 2019-2020 academic year. Convenience sampling method was used in determining the study group. In this method, the researcher chooses a case that is close to reach (Yıldırım and Şimşek, 2008). For this reason, the researchers chose university students in the aforementioned departments that they could

easily reach. 132 (71%) of the students who participated in the study were female, while 54 (39%) were male. Participants' ages ranged between 19 and 40.

### DATA COLLECTION

A two-stage form was used to find out the metaphors of university students who participated in the study about the concept of coronavirus. In the first stage, the students were asked to complete the sentence “Coronavirus is like...” to find out which metaphors university students associated the coronavirus concept with. In the second stage, the students were asked to complete the sentence starting with “because...” to explain the metaphor they associated with the concept of coronavirus. During the process of developing the form, opinions of 4 academic staff who were experts in the field (educational sciences and Turkish education) were taken. In line with the opinions of the experts, the first statement put forward “Coronavirus resembles...” was changed to “Coronavirus is like...” to help the participants create the metaphors more clearly. After revisions were made in line with the views of experts, the finalized form was applied to university students.

### DATA ANALYSIS

In the study, document analysis technique, which is one of the qualitative research methods, was used for data analysis. Document analysis is the analysis of the written material that will guide in reaching the phenomena and concepts that will be obtained as a result of the study. Document analysis includes the analysis of written material containing information about the events or phenomena which are aimed to investigate (Şimşek, 2009).

### CREATING THE METAPHORS:

Metaphors university students created about the concept of coronavirus were determined and a metaphor table was formed. In the study which was conducted with 203 university students, the metaphors created by 17 university students were excluded since they were not deemed as appropriate, irrelevant to the structure of the subject and they were weakly constructed. The metaphors created by 186 university students were categorized by the researchers and added in the metaphor table. It was found that 186 students created a total of 133 appropriate for the structure of the metaphors.

*FORMING THE CATEGORIES:*

The metaphors created by the participants in the study were analysed in terms of their characteristics. 12 categories were formed as a result of the analysis and the metaphors obtained were distributed to these categories. After the metaphors were distributed in categories, category and metaphor table was sent to two different field experts and they were asked to group the metaphors into categories; the tables they sent were matched with the tables created by the researchers and a consensus was reached in grouping the metaphors into categories. SPSS 18.0 statistical program was used in the

percentage and frequency calculations of the metaphors in categories.

**RESULTS**

This section of the study includes metaphors of the students about coronavirus obtained as a result of the data analysis. First the metaphors obtained from the study were given in general, and then the metaphors were presented separately within the conceptual categories and themes they were related with. The university students in the study created 133 well-structured metaphors about Coronavirus. Table 1 shows the frequency values of all the metaphors.

Table 1. Metaphors Created in the Study and Their Frequency Values

Rank	Metaphor	f	Rank	Metaphor	f
1	Gossip	8	21	Mud	2
2	Love	6	22	Nightmare	2
3	War	5	23	Lie	2
4	Darling	4	24	Lottery ticket	2
5	Enemy	4	25	Snow ball	2
6	Exam	4	26	Wall	2
7	Fire	4	27	Adhesive	1
8	Domino	3	28	Advice	1
9	Gum	3	29	Alcohol	1
10	Illiteracy	3	30	Anti-sociality	1
11	Rain	3	31	Betrayal	1
12	Thief	3	32	Blindness	1
13	Uninvited guest	3	33	Book	1
14	Bad friend	2	34	Bullet	1
15	Dreams	2	35	Bump	1
16	Fabricated news	2	36	Burning air	1
17	Guard	2	37	Cancer	1
18	Happiness	2	38	Chicken pox	1
19	Humans	2	39	Cigarette	1
20	Ivy	2	40	Cleaning staff	1
41	Conscience	1	88	Mother-in-law	1
42	Contest	1	89	Natural gas	1
43	Cross fire	1	90	Naughty step	1
44	Dictator	1	91	Ninja	1
45	Dodge ball	1	92	Officer	1
46	Dollar exchange rate	1	93	Oral exam	1
47	Doomsday	1	94	Pomegranate	1
48	Doubt	1	95	Pomegranate stain	1
49	Dress	1	96	Poor quality pop music	1
50	Driving on an icy road	1	97	Prison	1
51	Eagerness	1	98	Problem	1
52	Earthquake	1	99	Radar application	1
53	Electrical current	1	100	Random bullet	1
54	End of month	1	101	Red blood cell	1
55	Exam week	1	102	Red wine	1
56	Fake news	1	103	Ring	1
57	Fan	1	104	Rope	1
58	Favour	1	105	Rubick's cube	1
59	Fear	1	106	Sans storm	1
60	Flea	1	107	Sin	1

61	Flood	1	108	Sleep terror	1
62	Folk dance	1	109	Snail	1
63	Football	1	110	Sneezing	1
64	Foreign land	1	111	Social media	1
65	Forest fire	1	112	Song	1
66	Glue	1	113	Sound	1
67	Guest	1	114	Sparkle	1
68	Handcuffs	1	115	Stinging nettle	1
69	Hatred	1	116	Storm	1
70	Herd of snakes	1	117	Swamp	1
71	Historical era	1	118	Technology	1
72	Hourglass	1	119	Thorny road	1
73	Hurricane	1	120	Tick	1
74	Insight	1	121	Tornado	1
75	Instructor	1	122	Traffic lights	1
76	Iron bars	1	123	Trip	1
77	Key	1	124	Truth	1
78	Knife	1	125	Turtle tamer	1
79	Knot	1	126	Undesired habit	1
80	Letter	1	127	Unhappiness	1
81	Magic ball	1	128	Vacuum cleaner	1
82	Maid	1	129	Water pipe	1
83	Medallion	1	130	Well	1
84	Mental illness	1	131	Whirlpool	1
85	Meteor	1	132	Wind	1
86	Mine	1	133	Yawning	1
87		Mixer		1	
Total			186		

As can be seen in Table 1, university students associate the concept of coronavirus with 133 metaphors. It can be seen that university students associated the concept of coronavirus with the metaphors of gossip (f= 8), love (f= 6), war (f= 5), exam (f= 4), darling (f= 4), enemy (f= 4) and fire (f= 4) the most. The fact that university students associated the concept of coronavirus with the metaphors of gossip, love, exam and darling more can be associated with the fact that they have the status of student in the society and they try to establish bilateral relationships of the period of life they are in and that they are during a stage of preparing for life. In addition, it was found that students associated 39,8% of the metaphors they created with human elements

(f=74), 21% with objects (f= 39), 16,7% with events-situations (f= 31), 14,5% with nature elements (f= 27), 3,8% with eating-drinking (f= 7), 2,2% with animals (f= 4), and 2,2% with other concepts (f= 4). Of human elements, the metaphors most chosen were gossip (f= 8) and love (f= 6).

Of the object theme, the metaphors most chosen were fire (f= 4) and domino (f= 3). Of the events-situations theme, the metaphors most chosen were war (f= 5) and exam (f= 4). Of the eating-drinking theme, the metaphor most chosen was gum (f= 3). Table 2 shows the frequency values according to whether the metaphor created has a positive or negative meaning.

Table.2 Metaphor’s Containing a Positive or Negative Meaning

Metaphor	Frequency
Positive	24
Negative	162
Total	186

Of the metaphors created by university students, 87,1% were used with a negative (f= 162) meaning, while 12,9% were used with a positive

(f=24) meaning. Metaphors created about coronavirus mostly have a negative meaning. Of the metaphors used with a negative meaning, the most used metaphors were gossip (f= 8), love



(f= 6), fire (f= 4). The sentences “Coronavirus is like gossip because it loves spreading”, “Coronavirus is like love because it comes suddenly”, “Coronavirus is like fire because it burns where it touches” can be given as examples. Metaphors about coronavirus mostly express negative meaning. It can be seen that this is caused by the fact that coronavirus restricts human life, damages human body and even causes death, changes life standards to a great extent, and also as a result of factors such as the necessity of obeying rules such as social distance and isolation.

Of the metaphors used with a positive meaning, the most used metaphor was exam (f=3). The sentence “Coronavirus is like exam because it taught us to win” can be shown as an example to the positive use of this metaphor. In addition, the sentences “Coronavirus is like an instructor because it taught us the habit to wash hands”,

“Coronavirus is like a magic ball showing the truth because it made us confront with the truth of death in a striking way, reminded us again and again that each moment lived, our loved ones, the outside world and in short our lives are very valuable and made us understand the importance of even the smallest details in our lives” are also sentences including metaphors with positive meanings. Although coronavirus meant mostly negative things to university students with the things it brought into human life and took away from human life, it also provided the use of many metaphors with positive meaning. The reason for this may be the fact that although out of necessity, coronavirus caused people to act together again, to respect each other and to emphasize cleaning habits more. In our study, metaphors were groped in conceptual categories and analysed. Table 3 shows the categories created for the concept of coronavirus.

Table 3. Categories Created for the Concept of Coronavirus

Category	Metaphors	f	%
Being contagious	love, fire, swamp, illiteracy, mud, gossip, domino, vacuum cleaner, yawning, truth, sin, folk dance, sneezing, dreams, rope, undesired habit, favour, poor quality pop music, snowball, mother-in-law, red wine, sparkle, random bullet, happiness, unhappiness, pomegranate, hatred, forest fire, fake news, gum, ivy, sound, darling, water pipe, chicken pox, technology, glue, rain, lie, fabricated news, fan	57	30,6
Causing damage/being fatal	alcohol, love, fire, earthquake, problem, thorny road, enemy, dress, storm, whirlpool, stinging nettle, betrayal, humans, nightmare, cancer, tick, bad friend, hour glass, mine, guest, pomegranate stain, radar, gum, war, doubt, contest	34	18,3
Being hidden	mental disease, love, flea, uninvited guest, natural gas, enemy, tornado, humans, sleep terror, bullet, ninja, lottery ticket, flood, oral exam, bump, cross fire	20	10,8
Being unifying/regulating /leaving positive effects on people	red blood cell, knot, football, dreams, maid, insight, turtle tamer, hurricane, book, letter, officer, naughty step, instructor, war, exam, magic ball	18	9,7
Affecting large areas/the process covering a large period of time/changing life and affecting everyone equally	end of month, mud, dollar currency, eagerness, thief, medallion, meteor, mixer, gum, snail, war, cigarette, historical era, rain, ring,	17	9,1
Isolation	key, anti-sociality, prison, iron bars, wall, enemy, guard, foreign land, handcuffs, sand storm, social media, cleaning staff, conscience, trip	15	8,1
Taking measures	knife, driving on icy road, electrical current, thief, bad friend, advice, darling, song, traffic lights, herd of snakes	10	5,4
Social distance	wall, doomsday, darling, dodge ball, burning air	5	2,7
Emotions	illiteracy, blindness, well, exam week	4	2,2
Restriction	dictator, thief, fear, darling	4	2,2
Uncertainty	wind, rubick's cube	2	1,1
Total		186	100,0

It was found that 11 categories were created for the concept of coronavirus in the study. Of the metaphors university students created, 30,6% were in the category of being contagious (f= 57); 18,3% were in the category of causing damage/being fatal (f= 34); 10,8% were in the category of being hidden (f= 20); 9,7% were in the category of being unifying/regulating/leaving positive effects on people (f= 18); 9,1% were in the category of affecting large areas/the process covering a large period of time/changing life and affecting everyone equally (f= 17); 8,1% were in the category of isolation (f=15); 5,4 % were in the category of taking measures (f= 10); 2,7% were in the category of social distance (f=5); 2,2% were in the category of emotions (f=4); 2,2% were in the category of restriction (f=4); 1% were in the category of uncertainty (f=2).

In the category of being contagious, the metaphor most used by the participants was gossip (f= 8)

*“Coronavirus is like gossip because it spreads quickly.”* The fact that gossip metaphor was the most used metaphor in the category of being contagious can be associated with the quick spread of gossip. In addition, the fact that gossip metaphor was among the human elements such as the metaphor of illiteracy, which is another metaphor used in the category of being contagious, has caused it to be in the forefront in metaphor use.

In the category of causing damage/being fatal, the most used metaphors were love (f=3) and fire (f=3). *“Coronavirus is like love because they both take your breath away.”*, *“Coronavirus is like love because it causes pain.”*, *“Coronavirus is like fire because it burns.”* It is thought that the reason why the metaphor of love was used the most in this category is the fact that love has an important place in the lives of students because of their ages.

In the category of being hidden, the most used metaphor was uninvited guest (f=3).

*“Coronavirus is like an uninvited guest because it comes when it is not expected.”* It is seen that the metaphor of uninvited guest is used in the forefront in the category of being hidden as a human element.

In the category of being unifying/ regulating/ leaving positive effects on people, the metaphor exam (f= 3) was used more. *“Coronavirus is like exam because it taught us to win.”* It is thought

that the reason why the metaphor is used more than the other metaphors is the fact that exam is an important factor in university life, it affects students at many points, enables them to assess themselves and provides intrinsic motivation with success obtained as a result of exams.

In the category of affecting large areas/the process covering a large period of time/changing life and affecting everyone equally, the most used metaphor was war (f= 2). *“Coronavirus is like war because it has the power to take the whole world under its effect and it has affected many areas (economy, health, education, etc.).”* The reason why this metaphor was used can be the fact that the metaphor of war has a high effect power and it includes the concept of fight and at the same time the fact that since news about war are in the forefront in our time, they have a place in the memories of the participants. In the category of isolation, the most used metaphor was guard (f= 2) *“Coronavirus is like guard because it imprisons people to home”*. In this category, another isolation element, guard, is in the forefront as metaphor.

In the category of taking measures, all metaphors were used equally. The metaphor of herd of snakes is an interesting metaphor that can be given as example. *“Coronavirus is like herd of snakes the antidote of which has not been found and which grows around because it is present around in a herd, it can kill you when it stings although it has no harm from away”*. In the category of social distance, all metaphors were used equally. The metaphors of wall and doomsday can be given as examples to this category. *“Coronavirus is like a wall because it keeps people away from each other.”*, *“Coronavirus is like the doomsday because everyone is running away from each other.”* In the category of emotions, all metaphors were used equally. The metaphor of exam week can be given as example to this category. *“Coronavirus is like the exam week because it causes everyone distress and uneasiness.”* In the category of restrictions, all metaphors were used equally. The metaphor of darling can be given as example to this category. *“Coronavirus is like a darling because it prevents me from what I want to do.”* In the category of uncertainty, all metaphors were used equally. *“Coronavirus is like wind because you don’t know where it will blow you”*.

## CONCLUSION AND DISCUSSION

186 university students who participated in the study expressed the concept of coronavirus with 133 different metaphors. Although this finding alone is not enough, it shows that university students have a large vocabulary. While university students were describing the concept of coronavirus, they used the metaphors of gossip, love, war, exam, darling, enemy and fire the most. This shows that social status, social events and development periods had a significant place in metaphor creation.

The metaphors created by the university students were in the categories of being contagious, causing damage/being fatal, being hidden, being unifying/regulating/leaving positive effects on people, affecting large areas/the process covering a large period of time/changing life and affecting everyone equally, isolation, taking measures, social distance, emotions, restriction, uncertainty. While the content of coronavirus, its effects on human life, and its effects on human body had a significant place in the formation of these categories, the words social distance, isolation, spreading-being contagious, which entered human life with coronavirus also had a great effect.

From the metaphors created by university students, the themes of human elements, objects, events-situations, natural elements, eating-drinking, animals and other elements which were not included in these themes were obtained. With such a distinction, it can be seen which elements in their lives students made use of in choosing metaphors. While creating metaphors about coronavirus, university students made use of human elements, in other words, themselves and their social environment.

While creating metaphors about coronavirus, university students made use of words and sentences which had both positive and negative meanings. It can be seen that metaphors created about coronavirus mostly had negative meanings. When the literature is reviewed, it can be seen that there are metaphor analysis studies on how people perceive some concepts. It can be seen that these studies are mostly in the fields of education. For example, it can be seen that a large number of metaphors have been conducted with the concepts of exams (Duban and Arisoy, 2017;

Güngör-Aytar and Kurtoğlu-Karataş, 2017; Güven and Dak, 2017) and teacher (Gillis and Johnson, 2002; Oğuz, 2009, Patchen and Crawford, 2011; Saban, 2008; Shaw and Mahlios, 2008, Yob, 2003). It can be seen that the results obtained as a result of metaphor analysis are important in terms of learning the perceptions and attitudes of individuals about that concept. Although the concept of coronavirus is not a new concept, it has become the number of agenda of people since it has affected the whole world deeply. For this reason, it is thought that finding out the perceptions about the concept of coronavirus can lead to finding out the attitudes of humans against this epidemic. The government authorities of all countries in the world, especially World Health Organization state that the behaviours of people against this disease, which does not have a vaccination and treatment yet, are very important. Human behaviours are shaped by the perceptions of humans. From this perspective, it is very important for countries to find out people's perceptions against this disease. As a result of the findings of the study, it is valuable that university students perceived coronavirus as contagious with a rate of 30.6% and as damaging and fatal with a rate of 18.3%. These results can be interpreted as the fact that students take coronavirus seriously and that they will shape their behaviours accordingly. Another important issue at this point is the concepts of social isolation and distance. It can be seen that this disease can easily transmit from person to person and its transmission rate is very high. Since humans are social beings, it can be predicted that obeying the rules of distance and isolation, which are of the most effective ways in preventing coronavirus, can be challenging for humans in the long run. However, right now isolation and social distance are the most important rules that can be applied to fight this disease. It can be seen that students used metaphors about isolation and social distance with a rate of 10.8% in this study. It is valuable that the students are conscious about this issue. Another interesting point in the study is the result that 12.9% of the metaphors have positive meanings.

This result can be seen as important in terms of maintaining people's mental health; however, it can also be said that it can be possible for individuals who have positive perspective against



this disease not to care about the disease and not to take the rules seriously and thus cause serious problems in the future. At this point, it can be thought that it will be important to conduct studies for awareness on the serious effects and significance of coronavirus.

#### RECOMMENDATIONS

1. Researchers may conduct studies showing to what extent coronavirus affects the use of words such as social distance, isolation, spreading-being contagious and restriction in daily life.
2. Words chosen as metaphor are also an indicator of human memory and experience. In this context, concepts such as exam, love, fire and gossip, which are used more than the other concepts in the present study, should be emphasized more.
3. Concepts such as love, fire and gossip, which were used more than the other metaphors, should be evaluated by field experts and it should be made possible for students to survive the developmental period they are in more healthily.
4. Metaphors obtained in the study show the students' perceptions. Perceptions guide our behaviours. Since the perceptions and behaviours of people against this disease will have an important place in the extent coronavirus affects countries, it will be suitable for experts in social psychology and behaviourists working in the field to analyse the results obtained from the study in detail.
5. The present study was conducted to find out the metaphorical perceptions of university students about coronavirus; however, considering that coronavirus affects all sections, future studies can be conducted with different sample groups. In addition, different methods and approaches which can show the perceptions of people, other than metaphor analysis can be used in future studies.

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