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METAPHORICAL CONCEPTUALIZATION OF ECONOMY BASED ON THE SOURCE DOMAIN OF MACHINE IN ENGLISH AND SERBIAN

In this study the Conceptual Metaphor Theory is applied to explore how economy is conceptualized in English and Serbian by means of MACHINE metaphors. Economy is the domain of human activity which comprises production, distribution, trade and consumption of goods and services and whose central aspect in all cultures is work, defined as carrying out of tasks to cater to human needs. Our analysis demonstrates that the MACHINE metaphor structures the target domain of ECONOMY in such a way to highlight work in both languages. The central mapping is established between the functioning of various types of machines and a whole range of economic activities so that smooth operation and high efficiency typical of machines are promoted as the most desirable qualities of individuals or organizations. Consequently, additional mappings involve the durability or reliability of machines and the quality of both human work and its product. Other source domain elements, typically negative aspects of machine work (such as malfunctions, breakdowns, glitches, and spare part replacements), also structure the domain of economy. The findings indicate that the MACHINE metaphor primarily serves to hide the dehumanizing nature of modern work and to promote continuous production and consumption of goods.

Keywords: conceptual metaphor, conceptualization of ECONOMY, MACHINE metaphor, English, Serbian

1. INTRODUCTION

This study explores how the source domain of MACHINE is used to metaphorically conceptualize the target domain of ECONOMY in English and Serbian. The analysis is firmly grounded in Conceptual Metaphor Theory, whose insights and tenets have led the field of metaphor study since Lakoff and Johnson (2003 [1980]) proposed that related sets of metaphorical expressions are not simply means of talking about one entity in terms of another but evidence that humans think about one entity in terms of another.

Cognitive linguists postulate that metaphor is ubiquitous in language and thought (Lakoff, Johnson 2003 [1980]; Lakoff 1993; Kövecses 2010: x).

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Conceptual metaphors are investigated as systematic sets of correspondences, or mappings, across conceptual domains. Conceptual domains are areas of background knowledge related to particular entities, phenomena or experiences. These mental representations may be partially structured by other, 'source' domains, which are typically concrete and more easily comprehensible. In such cases, the underlying conceptual metaphors (conventionally formulated as e.g. *ECONOMY IS A MACHINE*) can be traced from 'target' to 'source' and vice versa through sets of metaphorical expressions – patterns of language which are reflections or linguistic realizations of patterns of thought. Therefore, metaphors as conceptual structures are predominantly, though not exclusively realized linguistically. For example, in *ECONOMY IS A MACHINE* metaphor, economy is understood and discussed in terms of mechanical devices which can operate, run smoothly, or malfunction, they have spare parts which need replacements, and they may belong to a larger process of production, etc. Consequently, this conceptual metaphor is linguistically realized by numerous metaphorical expressions, which are the result of the conceptual mappings between the source domain of *MACHINE* and the target domain of *ECONOMY*, e.g. *to rev up this economic machine*, with workers merely *cogs in some vast machine*, America's mortgage securitization *machine* was fundamentally *broken*.

CMT postulates that metaphors conceptualize target domains by projecting the structure of source domains onto them. As such projection can never be a perfect match, this process in thought and language is necessarily accompanied by a certain degree of metaphorical highlighting and hiding – matching attributes of the target domain are emphasized while those which are incompatible with the given source domain remain obscure. For this reason, metaphors are seen as filters for viewing target domains. As metaphors are postulated to arise from our bodily experience with the physical world, it is only logical that *MACHINES*, which have become part and parcel of human everyday life, should be exploited as the source domain for understanding a broad spectrum of target domains.

Earlier studies of *MACHINE* metaphors (Lakoff, Johnson 2003 [1980]; Lakoff 1987; Kövecses 1988; 2000; 2010 [2002]; Deignan 2005; Goatly 2007; Đorđević 2013; Grujić 2014; Grujić, Danilović Jeremić 2017; Grujić 2018; Grujić 2019) have confirmed that *MACHINES* structure a whole range of both abstract and concrete domains in English and Serbian². The findings presented in this paper are part of the author's larger study (Grujić 2018) which aimed to explore the multivalency of *MACHINE* metaphors – their capacity to structure various target domains.

The central aspect of economy is work. Although it may prove difficult to define work in some cases, in sociology it is understood as 'carrying out of tasks requiring the expenditure of mental and physical effort' (Giddens 2007: 742). Its objective is the production of goods and services that cater to human needs. Work in modern societies almost invariably takes place within

² Due to the lack of space, the results of these studies cannot be dealt with in detail here. For detailed discussion of previous studies see Grujić (2018).

a larger system, which in turn belongs to an economic system. Economy thus comprises not just production and distribution of goods and services, but also their consumption. So, how do we understand economic systems, which are not only complex, but constantly evolving? Previous studies have established that typical source domains used in the process of its metaphorization comprise: ANIMALS (e.g. *bull market*), PLANTS AND GARDENING (*blooming company*), HEALTH AND FITNESS (*healthy competition*), FIGHTING AND WARFARE (*price war*), SAILING AND SPORTS (*rat race*) (Boers 2000). When it comes to comparison of metaphorical conceptualizations of economy in English and Serbian, contrastive studies have focused on the economy metaphors based on the source domains of a person (ECONOMY IS A PERSON, Silaški, Đurović 2010) and solid matter (ECONOMY IS SOLID, Silaški 2011).

In this paper the author comparatively investigates the metaphorical conceptualization of economy based on the source domain of MACHINE in English and Serbian, postulating that meaning extensions of the lexemes belonging to the semantic field of *machine* are systematically motivated by the underlying metaphorical mappings. The main aim of the paper is to analyze how the MACHINE metaphor structures the abstract target domain of ECONOMY, to formulate the metaphorical mappings based on this source domain in English and Serbian and to compare them so as to identify similarities and differences regarding the metaphorical conceptualizations and their linguistic manifestations.

1.1. Corpus and methodology

To establish how MACHINE metaphors structure economy in English and Serbian, the author selected a set of machine-related English lexemes and their Serbian counterparts. To avoid being guided by intuitions the author conducted the search in online corpora of English and Serbian. The metaphorical patterns in the two languages, or examples of linguistic realizations of conceptual metaphors were collected from the *British National Corpus* (BNC) and the *Corpus of Contemporary American English* (COCA) for English³ and from the *Corpus of Contemporary Serbian Language* (KSSJ) 2013 for Serbian.

The corpora were searched for the following lexemes: *machine, machinery, mechanism, lever(age), cog, operate, function* and *efficiently* (for English); and their Serbian counterparts *mašina, mašinerija, mehanizam, poluga, zupčanik, šraf, funkcionisati* and *efikasno*⁴. Metaphorical uses of the selected lexemes were identified using the MIP procedure (Pragglejaz 2007). This method for metaphor identification (MIP – *Metaphor Identification Procedure*) was applied to check the metaphoricity of the lexical items by establishing both their contextual and basic meanings. The terms and expressions identified as metaphorical were selected for the analysis.⁵ Linguistic metaphors were clas-

3 COCA was searched for *machine* only. In this paper, citations from COCA are marked, while all the other examples are exported from BNC.

4 For selection procedure and criteria see Grujić (2018).

5 For examples in English, *Oxford English Dictionary* (OED) was consulted. For Serbian examples *Rečnik spskohrvatskog književnog i narodnog jezika* (RSANU) and *Rečnik*

sified according to the target domain they structure. A substantial portion of these pertained to the domain of economy, which is hardly surprising given its importance in modern societies.

This study will present metaphorical conceptualization of economy based on the source domain of machines. Our research revealed several constructions of economy whose differences stem mainly from the type of machine on which the metaphorical understanding is based. Although the field of machines, mechanical devices and tools is vast, our analysis indicates that metaphors which use this source domain are grouped around the following several prototypical representatives: the machine, the machinery, the mechanism and the lever. These four will, consequently, be the pillars on which the presentation and discussion of the results in the next section will rest.

2. RESULTS AND DISCUSSION

2.1. ECONOMY conceptualized as A MACHINE

From the broadest perspective, economy as a whole is structured through a generic-level metaphor ECONOMY IS A MACHINE, where it corresponds to an unspecified economic machine (E: *machine* (example 1); S: *ekonomska mašina globalizovanog sveta* - example (2)). Depending on the system they belong to, economies are further pre-modified accordingly (as *the Chinese economic machine*, *the German economic machine* in the English corpus (examples (3) and (4)) and as *globalna kapitalistička mašina*, *američka privredna mašina* in the Serbian corpus, shown in (5) and (6)).

- 1) John Maynard Keynes. . . believed that an economy is like a *machine* (COCA)
- 2) Umesto da rade da bi trošili i tako podmazivali *ekonomsku mašinu globalizovanog sveta*, Evropljani „subverzivno“ pokušavaju da uz rad i žive.
- 3) *The Chinese economic machine* is so voracious. . . (COCA)
- 4) . . . *the German economic machine* needs new workers. (COCA)
- 5) . . . ali ga je u tom članku predstavio kao piona *globalne kapitalističke mašine*.
- 6) . . . veruju u snagu *američke privredne mašine*.

This metaphorical view involves correspondences between economic activities and the workings of the machine, which is realized by expressions such as *rev up* in English (example (7)), and as *raditi*, and *dobiti ubrzanje* in Serbian (citations (8) and (9)). These mappings are consequently accompanied by the metaphor THE STATE OF ECONOMY IS THE CONDITION OF THE MACHINE (which was realized through the expressions *in perfect working order* in English (example (10)), and *када су зуччаници довољно подмазани* in the citation (11) from the Serbian corpus), where machine oil corresponds to money. The specific-level metaphor MONEY IS MACHINE OIL is present in both English and Serbian corpora (E: *keeps the wheels of economy oiled* in example (12); S: *trošili i tako podmazivali ekonomsku mašinu*, example (13)).

srpskohrvatskog književnog jezika (RMS) were used.

- 7) Still trying to *rev up* this economic *machine*, Japan sees the world today as potentially very hostile. . . (COCA)
- 8) Bilo da ekonomiju posmatramo u kategorijama njenog prostranstva, ili u kategorijama dubine u središtu, uvek se čudimo jednoj te istoj stvari: *mašina radi*, iako sa veoma malo pokretačke energije.
- 9) Kapital koji se ulaže u inostranstvo raste, a *stara mašina dobija ubrzanje* većim dinamizmom XVIII veka.
- 10) There had been some hints in the latter part of the nineteenth century that *the machine* was not in *perfect working order*. As early as the 1860s there had begun a phenomenon that has since become endemic in advanced industrial societies: in a word, recession.
- 11) On (novac, T.G.) samo pomaže protok roba kao ulje koje olakšava *kretanje mašine*; kada su *zupčanci* već dovoljno *podmazani*, *višak ulja* im smeta.
- 12) Christmas cash *keeps the wheels of the economy oiled*.
- 13) Umesto da rade da bi trošili i tako *podmazivali* ekonomsku mašinu globalizovanog sveta, Evropljani „subverzivno“ pokušavaju da uz rad i žive.

In line with this, the stages economy goes through are described as periods in the process of machine working. In the DYNAMICS OF AN ECONOMIC ACTIVITY IS A PHASE IN WORKING OF A MACHINE metaphor, accelerated economic growth corresponds to machine operating faster (S: *zahuktavanje* in example (15)), stable economic progress corresponds to *booming along* in English (14), while unfavorable circumstances or economic activities of low intensity are mapped onto machine stopping (E: *halt* in (14); S: *zaustaviti, usko grlo, da mašina zastane, hlađenje američke mašine* in (16) - (18)).

- 14) As early as the 1860s there had begun a phenomenon that has since become endemic in advanced industrial societies: in a word, recession. Sometimes the machine would *boom along*, growing and expanding with heroic speed; then strangely it would *halt* and slump.
- 15) *Mašina će se istinski zahuktati* tek ako možemo da mobilizujemo privatne investitore.
- 16) Iberijske zemlje su se dugo opirale stvaranju velikih trgovačkih kompanija, jer je država već dodelila povlastice trgovcima iz Lisabona, Sevilje i Kadiza. Mašina je radila, a *jednom pokrenuta, teško se mogla zaustaviti*.
- 17) U ovom procesu učestvuju čitavo društvo i privreda (. . .). Dovoljna je jedna prepreka, ono što danas nazivamo „*uskim grlom*“, pa da *mašina zastane, ili čak da krene unazad*.
- 18) *Hlađenje američke mašine*: Američka Uprava federalnih rezervi ispoljila zabrinutost u pogledu rizika od preteranog usporavanja ritma privredne aktivnosti.

The metaphorical operation of the economic machine is made possible by the consumers. The metaphor THE CONSUMER IS A PART OF THE MACHINE maps cogwheels onto consumers in the machine of economy (example (19)). Another aspect of the target domain - the workers - also corresponds to *cogs* in (20) or, alternatively, *fuel* in (21).

- 19) Envision consumers not as *cogs in this machine* of inputs and outputs, supply and demand, and cause and effect, but as . . . (COCA)

20) (. . .) portrayed work in modern mass-production factories as devoid of all skill or satisfaction, with workers merely *cogs in some vast machine* totally outside their control.

21) They were people turned to *fuel for the American machine*. (COCA)

The function of economy, consequently, corresponds to the purpose of the machine. The metaphor FUNCTION OF ECONOMY IS PURPOSE OF A MACHINE is realized in English as *job creation machine*, *the wealth machine*, and *the growth machine* (examples 22-24). In the Serbian corpus, such conceptualization is identified in expressions such as *mašina za proizvodnju kolonijalnog bogatstva* and *mašina za stvaranje bogatstva* ((25) and (26)).

22) Because I think the American people understand that the greatest *job creation machine* in the history of the world is a reasonably lightly taxed and lightly regulated economy. (COCA)

23) *The wealth machine* hasn't only created millionaires. Between January 1995 and June 1998, Silicon Valley created 171,000 new jobs. (COCA)

24) One (goal, T. G.) is to feed the growth. There has to be energy and it has to be affordable in order to continue *the growth machine*. (COCA)

25) . . . veletrgovci, zastupnici i brodovlasnici iz Bordoa su bili istinski upravljači *mašine za proizvodnju kolonijalnog bogatstva*.

26) Jamajka je (. . .) *mašina za stvaranje bogatstva*, kapitalistička mašina u službi bogatih.

The generic-level metaphors of economy described above are further reflected and elaborated in more specific metaphors which structure lower-level aspects of the target domain, such as its constituent sectors or industries. Once again, we encounter the X IS A MACHINE metaphor, only this time it serves to conceptualize not economy as a whole, but manufacturing and agriculture, which correspond to *industrial machine* (in (27)), and *machine* (in (28)) respectively. In the Serbian corpus such conceptualization of agriculture is realized as *pogonska mašina* (citation (30)). When industry operates successfully it is described as a *fine-tuned machine* (example (28)), citizens are nameless *parts of the gigantic industrial machine* (in (27)), while workers correspond to cogs on a wheel, as in *a human cog in a vast industrial machine* (in (29)). There were no correspondences for mappings from examples (27) – (29) in our Serbian language corpus.

27) The industrial system of developed countries provides nearly all the inhabitants with enormous benefits, but each of us is *a part of the gigantic industrial machine*, quite helpless without the coordinated actions of millions of others. (COCA)

28) Farming might not look sophisticated (. . .). But it's older than Wall Street, it's *a fine-tuned machine*. . . (COCA)

29) Working on a conveyor belt or as *a human cog in a vast industrial machine* does little for a sense of personal fulfilment.

30) (. . .) rekao je da je poljoprivreda *pogonska mašina* srpske ekonomije.

The similar specific-level MACHINE metaphor structures rail transport (the British Rail is conceptualized as *a profit-making machine* in (31)), trade

(*mass merchandising machine* in (32)) and tourism (*money machine*, *Everest cash machine* in (33) and (34)) in the English corpora. Such mappings are found only for trade in Serbian (example (35)), where a shop is conceptualized as *mašina obnove*.

- 31) Sir Bob said he believed BR should be a service, not a profit-making machine and demanded an end to 'stop-go investment'.
- 32) A multi-million pound *mass merchandising machine* is behind the spectacular Gladiators series.
- 33) Tourism is our second biggest contributor -- after North Sea oil -- to gross domestic product. Out of this *money machine* the Government collects many hundreds of millions.
- 33) (. . .) angry, grieving Sherpas effectively unplugged the Nepali government's *multimillion-dollar Everest cash machine*. (COCA)
- 34) Zar najbitnije sredstvo, ili *mašina obnove*, nije dućan?

When it comes to banking, although our analysis could not establish that BANKING IS A MACHINE in English, metaphorical entailments confirmed the presence of this metaphor. The citation in Serbian realizes this metaphor as *zagrevaju mašine* (in (39)), while the citations in English illustrate the cross-domain mapping between cogs and interest rates (*cogs in the economic machine* in (36)). The growing intensity of banking activities corresponds to a machine warming up (*konglomerati . . . zagrevaju mašine* (39)), while specific bank products (e.g. mortgage insurance and credit cards) map onto separate machines (*mortgage securitization machine*, *perpetual payment machine* in (37) and (38)). Predictably, business failure in such metaphorical conceptualization corresponds to a machine breakdown (realized as *broken* in example (37)).

- 35) Someone, somewhere has to decide whether interest rates are political tools or *cogs in the economic machine*.
- 36) In other words, *America's mortgage securitization machine* was fundamentally *broken*.
- 37) *The perpetual payment machine*. Lenders would prefer you didn't worry how much a debt will cost or how long it will take you to repay.
- 38) I tu dolazimo do strategije poslovanja: ovakvi konglomerati kao pomenuta HVB banka mogu sebi da dozvole da polako „*zagrevaju mašine*“.

Findings were similar in the field of entertainment. This entire industry is metaphorically constructed as *the machine of American culture*, *music machine*, *corporate rock machine*, *pop machine*, *star-making machine* and *the Hollywood machine* in English (examples (41) – (45)) and *mašina zvana šoubiznis*, *mašina za zarađivanje novca* or *holivudska štanc-mašina* in the Serbian corpus (citations (46), (49) and (48)). In CULTURE IS A MACHINE metaphor, intense activities correspond to stable working of a machine (linguistically realized by the modifier *brektava* in Serbian in (46)), while the cost or loss incurred as a result of such activities corresponds to the product (*mašina za pravljenje deficita* in (47)).

- 39) I was watching “American Idol” the other night, and suddenly I thought: That's it. That epitomizes the *machine of American culture*. (COCA)

- 40) The *music machine* had been pushing me way too hard, and I needed a dose of reality. (COCA)
- 41) The *corporate rock machine*'s loved them all the way,
- 42) Gretta is sick of New York and *the pop machine* that is turning her boyfriend into both a rock star and a narcissist. (COCA)
- 43) It might be more accurate to call the group an anti-boy band. These boys aren't products of a *star-making machine* like Disney's, nor do they draw streams of squealing girls. (COCA)
- 44) *The Hollywood machine* can cause difficulty, pain and confusion, but it's afforded me opportunities to walk into different lives, says Whitaker. (COCA)
- 45) I da će joj ta *brektava mašina zvana šou-biznis* naneti mnogo veće ožiljke...
- 46) ... festivali se pretvaraju u *mašine za pravljenje deficita*.
- 47) Kao i većina filmova (...) izašlih sa *holivudske štanc mašine* (potencijalnih) hitova
- 48) ...pa ni tehno supkulture, ni rejev nisu uspeli da se definišu kao otpor, već su odmah postali *mašine za zarađivanje novca* u okviru „kreativnih industrija“.

The AN ARTIST/ENTERTAINER IS A MACHINE PRODUCT and AN ARTIST/ENTERTAINER IS A MACHINE metaphors construct performers. These metaphors are realized in English by expressions *crank out* in (50) and *product* in (51) and *cash machine* or *Minogue Machine* respectively.

- 49) In the Nineties, as the country-music industry became a sleek machine that *cranked out* twenty-two-year-old blow-dried insta-stars. (COCA)
- 50) These boys aren't *products* of a star-making machine
- 51) While cynics will say the band is just a manufactured *cash machine*, their humor and innocence too good to be true, ask the band, they'll tell you they just want to stay regular guys while having the time of their lives.
- 52) So successful had the *Minogue Machine* become that it was then able to turn down one of the most lucrative deals in pop music history.

To sum up, the machine-based metaphorical conceptualization of economy is similarly structured in English and Serbian by the following set of systematic metaphors: ECONOMY IS A MACHINE, THE FUNCTION OF ECONOMY IS THE PURPOSE OF A MACHINE, ECONOMIC ACTIVITY IS WORKING OF A MACHINE, THE STATE OF ECONOMY IS THE CONDITION OF A MACHINE, MONEY IS MACHINE OIL, THE DYNAMICS OF AN ECONOMIC ACTIVITY ARE PHASES IN WORKING OF A MACHINE. Additional mappings such as THE CONSUMER/WORKER IS A PART OF THE MACHINE and THE WORKER IS FUEL were observed in the English corpora, but could not be confirmed in the corpus of Serbian.

In both languages such conceptualization is complemented by less general machine-based structuring, which brings into focus more specific elements from the target domain. These particular notions are thus depicted as individual machines in both languages: INDUSTRY/ AGRICULTURE/ ENTERTAINMENT/TRADE/BANKING IS A MACHINE, while the metaphor AN ARTIST/ENTERTAINER IS A MACHINE/MACHINE PRODUCT has been observed only in the English corpora.

The machine-based metaphors of economy listed above evidently focus on its fundamental aspect – work. They project the world view in which human economic activities should be continuous, preferably intensive and highly efficient. Consequently, economic problems are seen as repairable mechanical breakdowns, while workers are interpreted as spare parts.

2.2. Economy conceptualized as machinery

Although not frequently, metaphorical construction of economy as machinery is present in both languages. The analysis shows that MACHINERY metaphors are extensions and elaborations of more conventional MACHINE metaphors, as can be expected given the basic meaning of the lexeme, which denotes a set of machines or their components.

The ECONOMY IS MACHINERY metaphor is linguistically realized by conventional expressions such as *machinery, lubricated and in motion* in English (example (54)), and *privredna mašinerija, multinacionalna mašinerija, mašinerija kapitalizma* or *kapitalistička mašinerija* in Serbian ((55)-(58)). The examples from our English corpus showed no confirmation of the additional mapping between workers and machinery parts or cogs, which was identified for Serbian (*sastavni deo velike multinacionalne mašinerije* (56), *točkić velike mašinerije* (59)).

- 53) Given the generic distortions of output and distribution in such systems, high rates of growth are required to keep the overall *machinery lubricated and in motion*.
- 54) ... čija bi propast mogla da nanese veliku štetu celoj *privrednoj mašineriji SAD*.
- 55) ... u kojima su čovek i njegov rad obesmišljeni time što su *sastavni deo velike multinacionalne mašinerije*.
- 56) *Nemilosrdna mašinerija kapitalizma...*
- 57) ... od strane zapadne *kapitalističke mašinerije* oličene u multinacionalnim korporacijama
- 58) ... radnik savremenog doba tu postaje „*osamljeni točkić*“ *velike mašinerije*.

Perceptibly different conceptualization emerges one level below the ECONOMY IS MACHINERY metaphor, when some constitutive elements of economy in turn get constructed as machinery in themselves. Such mapping was identified for commerce, where it is realized as *machinery of exchange and distribution* and *machinery of commerce* in English ((60) and (61)) and as *trgovačka i kreditna mašinerija* and *tržišna mašinerija* in Serbian (examples (62) and (63)).

- 59) the *machinery of exchange and distribution* established by recent decrees was quickly pushed aside;
- 60) the whole *machinery of commerce* is semi-paralysed.
- 61) *Holandska trgovačka i kreditna mašinerija* . . .
- 62) Drugi opet žale što ih nije zadesila sreća da i oni budu deo *tržišne mašinerije* u kojoj se do pre tri meseca trgovalo na veliko.

The metaphorical picture of entertainment industry and culture is in line with the aforementioned. It involves correspondences between machinery and mass culture (visible in expressions like *the machinery of mass culture* in English (64) and *mašinerija za projekciju slika, zvuka, softvera, želja* in Serbian (66)), rock music (*rock'n roll machinery* (65)), publishing (*industrijsko-izdavačka mašinerija* and *mašinerija prevedene književnosti*, (70) and (71)) or film and television (*holivudska mašinerija* (68), *mašinerija za zabavu i razonodu* (67) in Serbian). In Serbian, consequently, films correspond to machine products (*proizvod američke producentske mašinerije* (69)).

63) *the machinery of 'mass culture' worked to considerable effect.*

64) 'I've never been part of *the rock'n roll machinery.*'

65) Nije lako čuti francuski glas kad su Amerikanci zbog... *svetske mašinerije za projekciju slika, zvuka, softvera, želja*, ako ne voljeni, a ono poštovani svuda u svetu.

66) Kao televizičarka pomno pratim dva *produkta američke mašinerije za zabavu i razonodu.*

67) ...da nastave uspešnu bitku protiv *holivudske mašinerije* koja melje sve pred sobom.

68) ...tipičan *proizvod američke producentske mašinerije.*

69) ... znalac *industrijsko-izdavačke mašinerije.*

70) ... nesigurnoj i nesistematičnoj *mašineriji prevedene književnosti*

The metaphor CULTURE/ENTERTAINMENT ACTIVITIES ARE WORKING OF MACHINERY (realized as *work* in English (72)) could not be confirmed in our Serbian corpus, while additional correspondences between successful entertainers and machinery were confirmed only for Serbian (*velika rokenrol mašinerija* in (73)).

71) *the machinery of 'mass culture' worked to considerable effect.*

72) Rolingstonsi svirali u Beogradu. *Velika rokenrol mašinerija*, dva sata kvalitetnog programa i pedeset hiljada ljudi...

The findings above show that ECONOMY is understood as MACHINERY both in English and Serbian. In additional cross-domain mappings, the state of economy is mapped onto the condition of the machinery, while workers correspond to machine parts. The metaphor THE STATE OF ECONOMY IS THE CONDITION OF MACHINERY was confirmed for English, while the metaphor A WORKER IS A PART OF MACHINERY was identified in Serbian only. Other elements and aspects of economy (namely, commerce and culture) are conceptualized as machinery in themselves, and they are structured by metaphors such as: COMMERCE IS MACHINERY, CULTURE IS MACHINERY, CULTURE/ENTERTAINMENT ACTIVITIES ARE WORKING OF MACHINERY (for English) and RESULTS OF CULTURE/ENTERTAINMENT ACTIVITIES ARE MACHINERY PRODUCTS (for Serbian). As can be seen from the examples above, similarities with machine-based metaphors here are striking. However, our analysis suggests that machinery-based metaphors tend to emphasize the complexity, intensity or steadiness of entities they structure.

2.3. Economy conceptualized as a mechanism

This study has established that ECONOMY is both in English and Serbian metaphorically constructed in terms of a MECHANISM. The generic-level metaphor ECONOMY IS A MECHANISM is linguistically realized by expressions such as *economic mechanism* (example 74) and *ekonomski mehanizam* (75), while the expressions *function* (74), *pokrenuti* (75) and *mehanizam funkcionisanja* (76) realize the mapping between economic activities and the working of a mechanism.

- 73) ... executive functions would benefit from 'businesslike, disciplined, voluntary fulfilment of the assignments and decrees necessary for the *economic mechanism* to *function* really like clockwork'.
- 74) ... *pokrenut kompleksan ekonomski mehanizam*.
- 75) ... koji ne razume dovoljno dobro ekonomiju i *mehanizam funkcionisanja tržišne ekonomije*.

Similarly to machine-based conceptualizations described in the previous sections, the specific-level metaphor X IS A MECHANISM once again structures some particular elements or aspects of economy as separate mechanisms. These include market, entrepreneurship, company growth or profit in English or mortgage, interest rate and early payment in Serbian. The MARKET IS A MECHANISM metaphor is linguistically realized by expressions such as *market mechanism*, *mechanism*, *disciplinary mechanism* in the English corpora (examples (77) – (79)) and *osnovni mehanizam usklađivanja različitih interesa*, *tržišni mehanizam*, *mehanizam slobodnog tržišta* and *pokretački mehanizam čitave ekonomije* in the Serbian corpus (illustrated by (80)-(83)).

- 76) As we now know, the *market mechanism* (demand, supply and the price of oil) solved the apparently insoluble problem.
- 77) The market is *the mechanism* which has traditionally been invoked to limit, control and thereby legitimate private power
- 78) in evaluating the merits of reliance on the market for control as *a disciplinary mechanism*.
- 79) ... obezbeđen je *osnovni mehanizam usklađivanja ovih različitih interesa – tržište*.
- 80) Samo nas *tržišni mehanizam* može dovesti u situaciju da svaka lokacija bude privedena nameni.
- 81) ... da shvatim *mehanizam slobodnog tržišta*. . .
- 82) . . .tržište, koje nema kontrolora, predstavlja *pokretački mehanizam čitave ekonomije*.

Similar specific-level metaphors structure entrepreneurship (*mechanism for social mobility* (84)), merger (*mechanism of growth or diversification* (85)) and profit (*mechanism for promoting the public interest* (86)) in our English corpora, while our Serbian corpus examples reveal correspondences between mechanism and banking (*mehanizam jednog bankarskog posla* (87)), mortgage, interest rates (*dva mehanizma* (88)), or early credit payment (*mehanizam ranije otplate* (89)).

- 83) Entrepreneurship has not been a significant *mechanism* for social mobility in Latin America.
- 84) This is because Japanese corporations place very little emphasis on merger as a *mechanism of growth* or diversification of business.
- 85) But the point is that making profits for shareholders must now be seen as a *mechanism* for promoting the public interest, and not as an end in itself.
- 86) Izvesno, za ogromnu većinu Francuza, *mehanizam jednog bankarskog posla* biće zanimljiv koliko i jedno poglavlje kakvog putopisa. . .
- 87) Banke se od rizika osiguravaju hipotekama tamo gde se može, a gde to nije moguće, enormnim kamatama. *Ova dva mehanizma* se najradije kombinuju.
- 88) *Mehanizam ranije otplate*: Banka će obavestiti Zajmoprimca, ne kasnije od petnaest dana pre Datuma ranije otplate, o Iznosu ranije otplate i narasle kamate dospele dotad.

A whole range of other, finer relations regulating economy is also structured by MECHANISM-BASED metaphors. This metaphorical construction reflects itself through by expressions such as *internal mechanisms*, *price support mechanism*, *principal mechanism*, *European Exchange Rate Mechanism* in English ((90)-(93)) and, similarly, by *ekonomsko-sistemska mehanizam*, *mehanizam i instrumenti za privlačenje novih (. . .) investicija*, *mehanizmi upravljanja resursima*, *finansijski mehanizmi*, *mehanizam PDV-a i akciza*, *poslovni mehanizam* and *mehanizam deviznih kurseva* in Serbian ((94)-(100)).

- 89) The *internal mechanisms* regulating relations between different enterprises and industries
- 90) the adjustment from the present *price support mechanism* towards market prices
- 91) the *principal mechanism* regulating the economic relations between national states is the international financial system.
- 92) Moving sterling to the narrow band of the *European Exchange Rate Mechanism* as soon as possible, helping stable progress towards lower interest rates
- 93) Nerešeni *ekonomsko-sistemska mehanizmi*
- 94) . . . definisan *mehanizam i instrumenti za privlačenje novih stranih direktnih investicija*.
- 95) Oni će utvrditi, gde je neophodno, *mehanizme upravljanja zajedničkim prirodnim resursima*.
- 96) . . . *efikasne finansijske mehanizme* (subvencije) radi stumulisanja ulaganja u životnu sredinu.
- 97) To *mehanizam PDV-a i akciza* čini veoma nepravednim.
- 98) Koliko su slobodne zone ozbiljan fenomen, odnosno razvijen *poslovni mehanizam* u svetu. . .
- 99) ... najavio razgovore o povratku lire u *Mehanizam deviznih kurseva* Evropskog monetarnog sistema.

The foregoing results confirm that MECHANISM metaphors structure economy in both languages. The generic-level metaphor ECONOMY IS A MECHANISM is accompanied by the mapping ECONOMIC ACTIVITY IS WORKING OF A MECHANISM. In a slightly different conceptualization, the generic-level metaphor

ECONOMY IS A SET OF MECHANISMS depicts elements or aspects of economy as individual mechanisms (AN ELEMENT OF ECONOMY IS A MECHANISM).

The discussion above reveals that mechanism-based metaphors exploit the fact that mechanisms transform input movement and force into pre-planned output movement or force, thus streamlining or ordering the initial disorder and producing the desired results. This is why the dominant theme of mechanism-based metaphors are arrangements made in such a way to enable smooth, uninterrupted movement or operation of target domain entities. In other words, such metaphors structure economy as a pre-designed, or predefined process with thoroughly predictable outcomes, and they accordingly obscure all economic aspects which cannot be foreseen, prearranged or planned in advance.

2.4. Economy conceptualized as a lever

The generic-level metaphor ECONOMY IS A LEVER was confirmed only in our Serbian corpus, where ECONOMY as a whole, together with some of its sectors, is metaphorically understood and denoted as *POLUGA* (example (101)), and *POLITIČKA POLUGA* (102). Citations from our English corpus show that lever metaphors emerge later, at more specific levels, where they are used to describe certain elements of economic systems, but not the system as a whole. In AN ELEMENT OF AN ECONOMIC SYSTEM IS A LEVER metaphor, the simple machine is mapped onto credit system and staff training (expressed as *lever* in (103) and *lever for change* in (104)) in English, and onto entrepreneurship (*poluga ekonomskog razvoja*, (105)), products (*poluga u ekonomskom oporavku zemlje*, (106)), foreign investments (*jedna od osnovnih poluga razvoja društva* (107)), industry (*poluga privrednog razvoja* (108)) and export (*poluga privrednog rasta* (109)) in Serbian.

100) Snažna ekonomija jedna je od najvažnijih *poluga* kojom ćemo štititi svoje interese.

101) Upravo u tom kontekstu energetika je *politička poluga*.

102) There is no doubt that the credit system will serve as a powerful *lever* during the transition from the capitalist mode of production to the mode of production of associated labour...⁷

103) The thrust of current government training policy is very much one in which the training system is seen as a '*lever for change*' in the wider economic system.

104) Mere za podsticanje razvoja preduzetništva kao jednog od osnovnih *poluga ekonomskog razvoja* (. . .)

105) . . . tako da električna energija proizvedena na bazi domaćih resursa . . . treba da bude važna *poluga u ekonomskom oporavku zemlje*..

106) Tada se na strane investicije, jednu od osnovnih *poluga razvoja društva* . . .

107) Tu su industrijski kapaciteti i veliki poljoprivredni potencijali sa kojima ovo područke raspolaze. To su *snažne poluge za još brži privredni i ukupni razvoj*.

108) Bez obzira na želje, ekspanzija izvoza ostaje, bar za sada, najjača *poluga privrednog rasta*.

As can be seen above, metaphorical conceptualization of **ECONOMY** based on this simple machine necessarily involves gaining advantage by trading off force against movement. Leverage, or the mechanical power created by the lever, is also used to describe economic advantage when mapped onto investments (110), consumer awareness (111) and monopolies (112).

109) investment will result in considerable *leverage*.

110) consumers are well-informed about their wants and the choices open to them and can exert *leverage* over sellers by threatening to take their business elsewhere.

111) As a monopoly, the Soviet Union often has considerable *leverage* over foreign sellers.

As mentioned before, the generic-level metaphor **ECONOMY IS A LEVER** was confirmed only for Serbian. However, the more specific metaphor, **AN ELEMENT OF ECONOMIC SYSTEM IS A LEVER**, structures different aspects of economy in both languages. The metaphor **COMPARATIVE ADVANTAGE IN ECONOMY IS LEVERAGE** was observed for English only.

3. CONCLUSION

This study explored how the source domain of **MACHINES** is used to conceptualize **ECONOMY** in English and Serbian and established that this target domain is structured by a whole range of machine-based metaphors. This results in a spectrum of mutually different, though not exclusive conceptualizations.

The findings demonstrate that in both languages the central cross-domain mapping is established between the functioning of various types of machines and a variety of economic activities. Regardless of whether the conceptualization is based on a machine, machinery, a mechanism or a lever, economic activities are construed as working of a machine. Such metaphors almost invariably highlight smooth operation and high efficiency, which are promoted as desirable qualities of economic entities, be they individuals or organizations. Consequently, the additional mappings involve the durability or reliability of machines and the quality of both human work and its product. Other source domain elements, typically negative aspects of machine work (such as malfunctions, breakdowns, glitches, and spare part replacements), also structure the domain of economy, as they are mapped onto various economic weak points.

Research in CMT has established that since ‘the source domains of conceptual metaphors constitute coherent organizations of experience, the mappings from the source onto the target domains create equally systematically organized target domains’ (Kövecses 2017: 19). Our findings are in line with claims that systematic source-to-target mappings are not isolated from each other (Ibid.; Deignan 2005). However, the system arising from the elaborate network of cross-domain mappings between **MACHINES** and **ECONOMY** is of dual nature, as metaphorical patterns stem from two directions – the level of specificity of

the aspect of the target domain structured by MACHINE metaphors, and the type of machine on which the metaphorical conceptualization is based.

Different specificity levels of MACHINE metaphors result in two distinct, though very similar conceptualizations both in English and in Serbian. The first of the two conceptualizations constructs economy as a whole as a single metaphorical machine (ECONOMY IS A MACHINE), whose lower-level entities correspond to machine work, products, spare parts, cogs, breakdowns, etc. In the second conceptualization, however, economy is perceived as a set of machines. Such view allows the speakers of English and Serbian to structure the lower-level elements of the target domain through generic-level metaphors (e.g. TOURISM IS A MACHINE, COMMERCE IS MACHINERY, MARKET IS A MECHANISM), which are in turn accompanied by sets of straightforwardly hierarchical additional mappings.

Another set of metaphorical patterns arises from the underlining characteristics and key differences between the various machine types – basic qualities of machines, machinery, mechanisms and levers are used to produce distinctive conceptualizations, each exploiting the most prominent features of the given source domain representative. It is evident from the corpora citations that metaphors based on the machine predominantly highlight work and its continuity. The intensity, complexity or successfulness of human labour tend to be further emphasized in metaphorical conceptualizations which utilize machinery. The mechanism-based metaphors focus on metaphorical movement – the predefined manner in which situations develop, while the metaphors which exploit lever tend to be concerned with transforming (metaphorical) economic force into (metaphorical) economic or political movement, typically in order to gain comparative advantage. An overview of similarities and differences in English and Serbian corpora stemming from the type of source-domain representative on which the conceptualization is based is given in Table 1.

Table 1: Target domain aspects, as structured by various source-domain representatives.

Target domain entity	machine		machinery		mechanism		Lever	
	E	S	E	S	E	S	E	S
Economy as a whole	+	+	+	+	+	+	-	+
Economic branch	+	+	+	+	-	-	-	+
Economic activity	+	+	+	-	+	+	-	-
Economic entity	+	+	-	+	-	-	-	-
Market	-	-	+	+	+	+	-	-
Economic arrangements	-	-	-	-	+	+	-	-
Elements of economy	-	-	-	-	+	+	+	+

When it comes to what motivates MACHINE metaphors in the two languages, our analysis leads us to the conclusion that these are based on metonymy and culture. The target domain of human work and the source domain of machine labor belong to the same overarching category of production, which results in a metonymically motivated set of mappings. In addition, the two

languages explored in this study belong to two technologically similar cultures (disregarding the differences pertaining to the level of development). It goes without saying that one does not expect machine-based metaphors to arise in cultures unfamiliar with the modern technical know-how. Apart from this obvious cultural similarity, there is another, more likely to get overlooked: both cultures are dominated by the 'western' or 'materialistic' worldview. Simply put, modern western societies hold that the whole is a simple sum of its constituent parts. This attitude is what underlies the metaphorical understanding of not just ECONOMY, but other target domains which are depicted as MACHINES.

In terms of the world view promoted by MACHINE metaphors for economy, it is evident that they highlight uninterrupted and coordinated work of all the entities involved. Business continuity appears to be the feature which is more important than productivity, the quality which was notably absent from cross-domain mappings. Such depiction of economy is perfectly in line with the politics of consumerism, where increasing consumption of goods is seen as desirable: a constant growth of consumption can only be achieved through continual production. Work, thus, becomes an imperative in modern societies, and our findings indicate that MACHINE metaphors primarily serve to hide its dehumanizing nature in the modern world and to promote continuous production and consumption of goods.

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Corpora

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Tatjana S. Grujić

METAFORIČKA KONCEPTUALIZACIJA PRIVREDE ZASNOVANA NA IZVORNOM DOMENU MAŠINE U ENGLESKOM I SRPSKOM JEZIKU

Rezime

U ovoj studiji primenjena je teorija pojmovne metafore kako bi se ispitala metaforička konceptualizacija PRIVREDE zasnovana na izvornom domenu MAŠINE u engleskom i srpskom jeziku. Privreda je oblast ljudske delatnosti koja obuhvata proizvodnju, distribuciju, razmenu i potrošnju robe i usluga. U svim kulturama njen najznačajniji aspekt je rad, a on se može definisati kao izvršavanje zadataka koji zahtevaju umni i fizički napor u cilju proizvodjenja dobara i usluga za zadovoljenje čovekovih potreba. Rezultati istraživanja za koje je građa prikupljena iz elektronskih korpusa engleskog i srpskog jezika pokazuju da metafora MAŠINE

oba jezika osvetljava domen PRIVREDE sa aspekta rada. Međudomenska preslikavanja uspostavljaju se između privrede ili nekog njenog elementa i mašina različitog tipa, pri čemu se privreda preslikava na mašinu/mašineriju/mehanizam/polugu ili čitav skup odabranih predstavnika izvornog domena. Uočeno je da se preslikavanja između neprekidnog procesa mašinskog rada i ljudskog napora, kvarova i privrednih problema, mašinskih delova i radnika/potrošača obavljaju uz izvesne razlike, koje prvenstveno zavise od tipa mašine na kome je metaforička konceptualizacija zasnovana. Pokazalo se da metafore zasnovane na mašini služe prvenstveno za poimanje ljudskog rada kao neprekidnog procesa, dok one zasnovane na mašineriji ističu njegov intenzitet, složenost ili uspešnost. Metafore zasnovane na mehanizmu koriste se za poimanje načina na koji se privredni procesi odvijaju, dok se one koje koriste polugu bave načinom postizanja željenog ekonomskog cilja.

Ključne reči: pojmovna metafora, izvorni domen MAŠINE, ciljani domen PRIVREDA, engleski jezik, srpski jezik

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