



THE POWER OF WORDS: COGNITIVE DYNAMICS WITHIN MANIPULATIVE MENTAL SPACE IN DISCOURSE

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“Cognitive models of manipulation identification in the media discourse”

RSF project: The main objective of the project is to carry out a comprehensive study of the cognitive models underlying manipulation in the media space.



Relevance of the project

For the first time it is planned to create tools for identifying cognitive models of manipulation in the modern media discourse.

The development of an algorithm for identifying this type of model will make it possible in the future to propose strategies to counteract manipulation. Based on the identified algorithm, upon completion of the project, it is planned to create software for automatic manipulation detection.



Areas of work



automatic analysis of emotionally loaded texts



analysis of multimodal texts and creation of a corpus



analysis of axiological (value) categories in materials from newspapers, magazines and websites



analysis of polysemantic words and metaphors as means of manipulation in the media space

The power of words



LEV VYGOTSKY


“Those processes of thought and speech show unity but not identity” (Vygotsky, 1982, p. 355).

“Thought is not expressed by language but takes place in it” (Vygotsky, 1983, v. 2, p. 356).



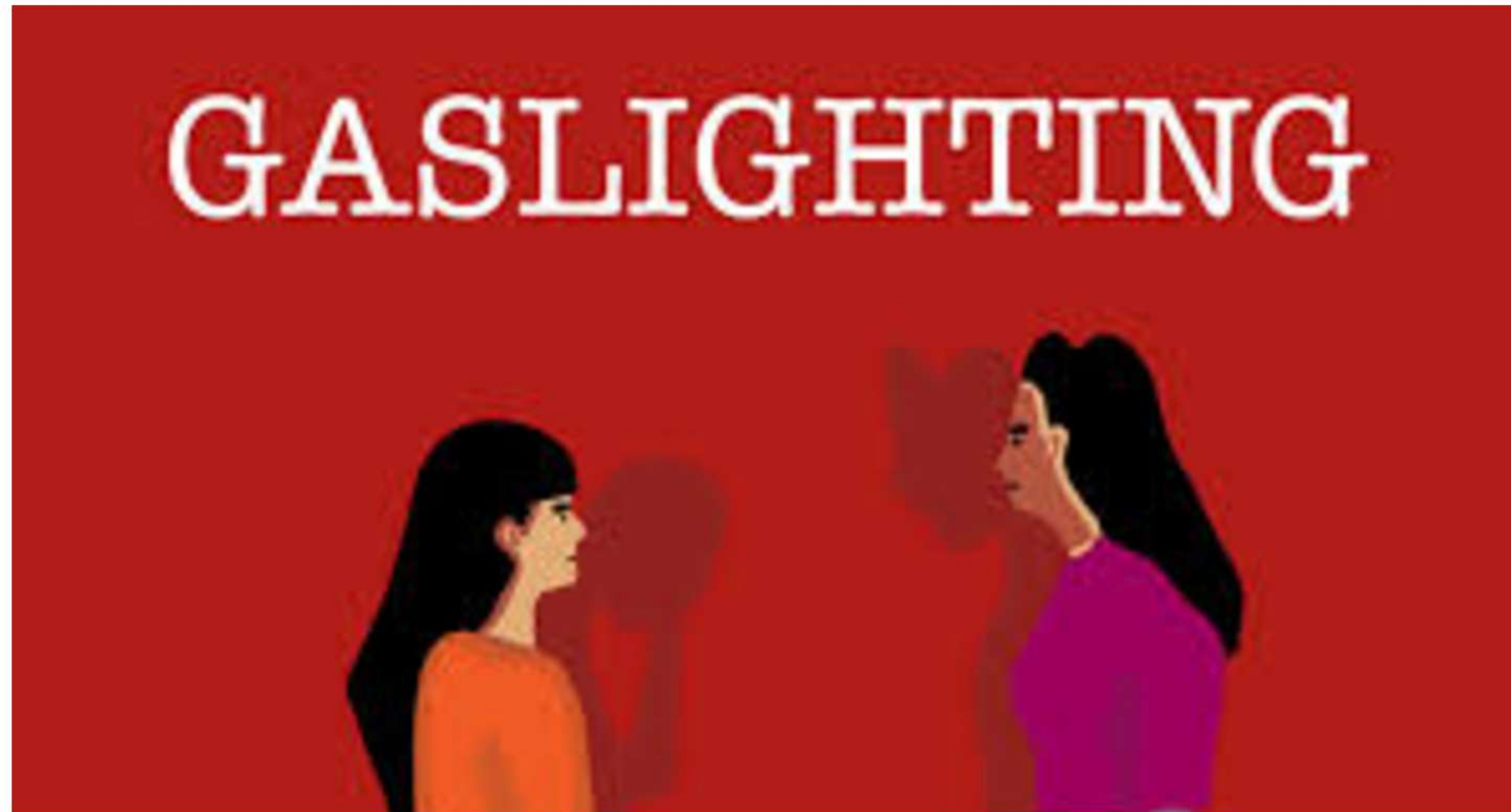
OSIP MANDELSTAM

“I wanted to utter a word,
but that word I cannot remember;
and the bodiless thought will now return to
the palace of shadows”




We focus on the analysis of word meaning generation for the purpose of manipulation, which has a deforming effect on the formation of the listener-reader's conceptual world-view, which can result in cognitive distortions.

These distortions affect the perception of reality and, ultimately, cause irrational human behavior.



Gaslighting is a colloquialism, defined as manipulating someone into questioning their own perception of reality (the film **Gaslight** 1944).





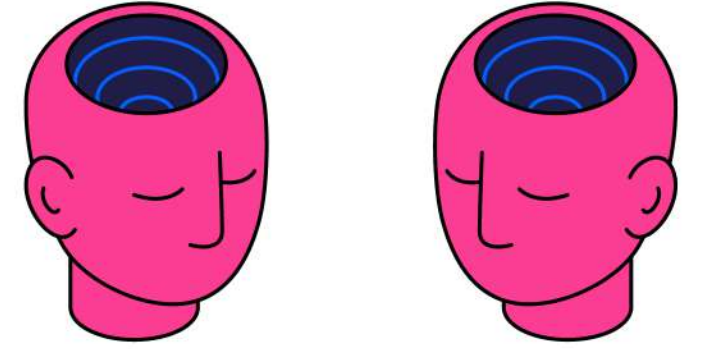
We pose the question: how the mental space “manipulation” is structured in media discourse through appropriate frames.

The task is not only to identify frames, but also to identify the dynamic interaction within the configuration of frames that structure a given space.

We analyze the dynamics of cognition in the act of manipulation within three dimensions:



**DYNAMICS OF COGNITION
WITHIN THE MIND**



**DYNAMICS OF COGNITION
BETWEEN THE MINDS**



**DYNAMICS OF COGNITION BETWEEN THE MIND
AND ENVIRONMENT**



Frame “manipulation”



- 1) **Agent** – initiator of the manipulative dictum
- 2) **Experiencer** – recipient of the manipulative dictum
- 3) **Goal** - the goal pursued by the agent formulating the manipulative dictum
- 4) **Dictum** - a message which corresponds or does not correspond to objective reality
- 5) **Counter agents(s)** – agents(s) that interfere with or deform the manipulative dictum



Frame “manipulation”

Manipulation is a strategy for controlling an agent over a patient in a situation where the agent deliberately avoids direct coercion and strives for implicit/hidden imposition of his goals and beliefs.

This is the difference between manipulation and persuasion (open influence).

A person is able to easily resist the open imposition of a certain point of view on him, that is, he becomes a counter/agent. But it is not so easy for him (the addressee) to resist when what is being imposed becomes implicit. That is, in the manipulation frame, the counter/agent is optional.

Frame “manipulation”

The frame “**manipulation**”, which structures the mental space of the same name, correlates with the frames “**lie - truth**”, “**control**”, “**trust**”, “**gullibility**”, etc.



“If you managed to deceive person, this doesn't mean that he is a fool, it means that you were trusted more than you deserve.”

Charles Bukowski

Frame TRUTH

Agent — the initiator of the dictum

Agent's attitude to the dictum

Experiencer — the addressee of the dictum

Motive — the events preceding the dictum

Goal — the goal pursued by the agent, formulating the dictum

Dictum — a message **CORRESPONDING** to objective reality

Nature of the dictum — facts, characteristics of facts; Manner of expressing the dictum — explicit, implicit

Perception of the dictum by the agent — positive, negative, neutral, other

Post-effect of the dictum — the events following the dictum

Counter-agent(s) — the agent(s) preventing the dictum or distorting it

Frame LIE

Agent — the initiator of the dictum

Agent's attitude to the dictum

Experiencer — the addressee of the dictum

Motive — the events preceding the dictum

Goal — the goal pursued by the agent formulating the dictum

Dictum — a message that **DOES NOT CORRESPOND** to objective reality

Nature of the dictum — facts, characteristics of facts Manner of expressing the dictum — explicit, implicit

Perception of the dictum by the agent — positive, negative, neutral, other

Post-effect of the dictum — the events following the dictum

Counter-agent(s) — the agent(s) preventing the dictum or distorting it

TRUTH

LIE



In fact, to say that existence does not exist or non-existence exists, it is a lie, and to say that things exist, and the non-existent does not exist, this is the truth.

Aristotle



*Veritas consistit in adaequatione intellectus et rei
(truth lies in the consistency of mind and thing).*

Thomas Aquinas

Different languages interpret the semantics of the word truth differently

YIDDISH

is rather a theological - (אמת) truth - '**emèt** concept. It means "strong, durable, stable, based on faith in the union between people and God" and confidence in his promise

GREEK

truth **alêtheia** (ἀλήθεια) is interpreted as the opposite of the hidden

LATIN

veritas is understood rather as "a norm, a proper basis, rule, legal truth"



English idioms with “**truth**”

“**bend the truth**” – to say something that is not true or that misleads people but that is usually not regarded as a serious or harmful lie

“**stretch the truth**” – to say something that is not exactly true, to describe something as larger or greater than it really is

“**play fast and loose with the truth**” – to behave in a clever and dishonest way

“**shade the truth**” – to alter the truth to a small extent or degree

“**be economical with the truth**” – to avoid stating the true facts about a situation, or lying about it.



English idioms with “**truth**”

alternative truth – a blatant lie

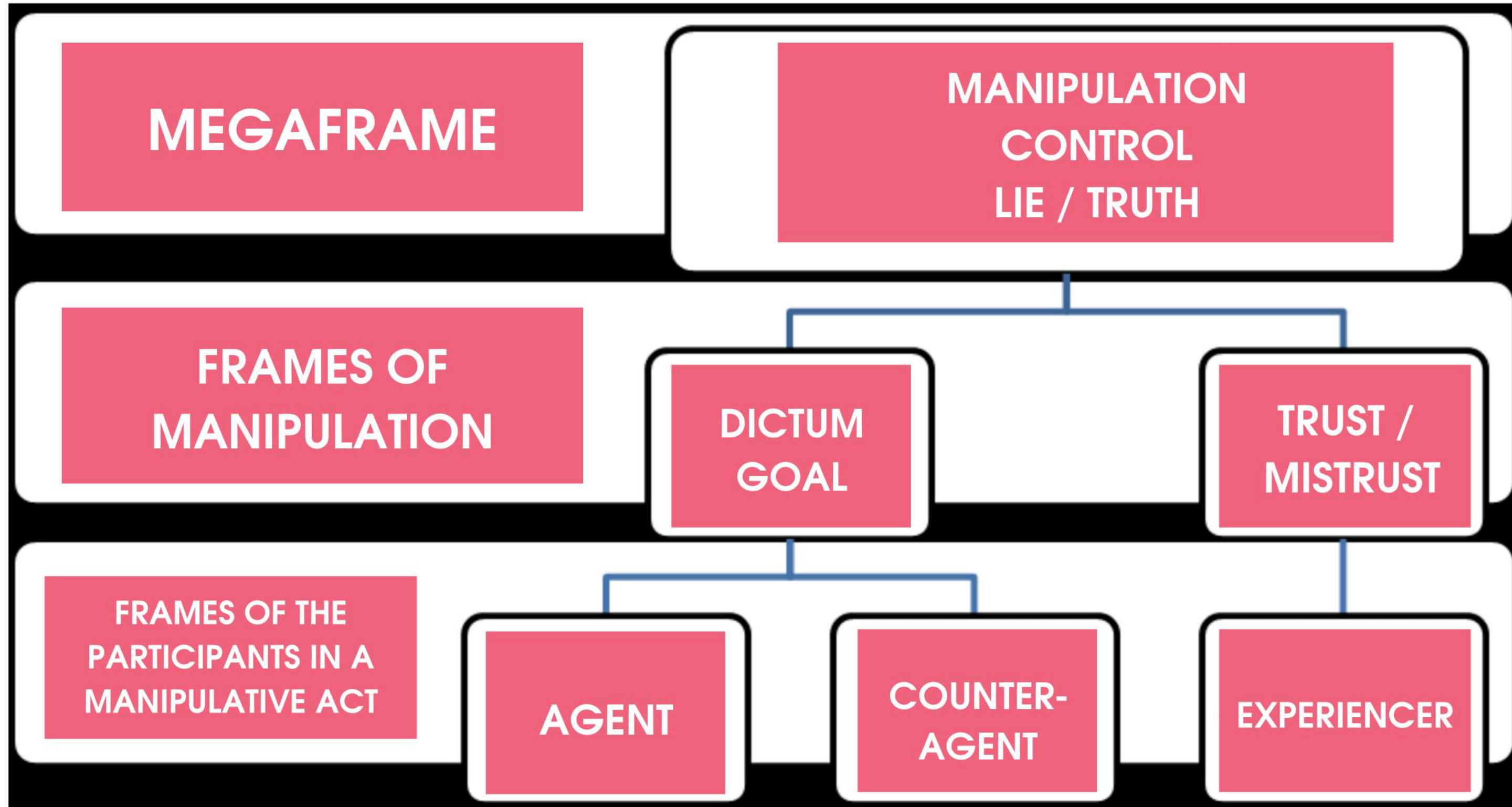
(<https://www.urbandictionary.com/define.php?term=alternative%20truth>)

post truth – a time when objective facts are less influential in shaping public opinion than appeals to emotion and personal belief (OELD)

countertruth(s) – a truth expressed in opposition to the proposed truth

(<https://en.wiktionary.org/wiki/countertruth>)

Frames configuration within manipulative mental space



Cognitive dynamics within the frame configuration

Cognitive dynamics, closely related to the cognitome and cognitive progression (Anokhin 2023), is considered from three perspectives:



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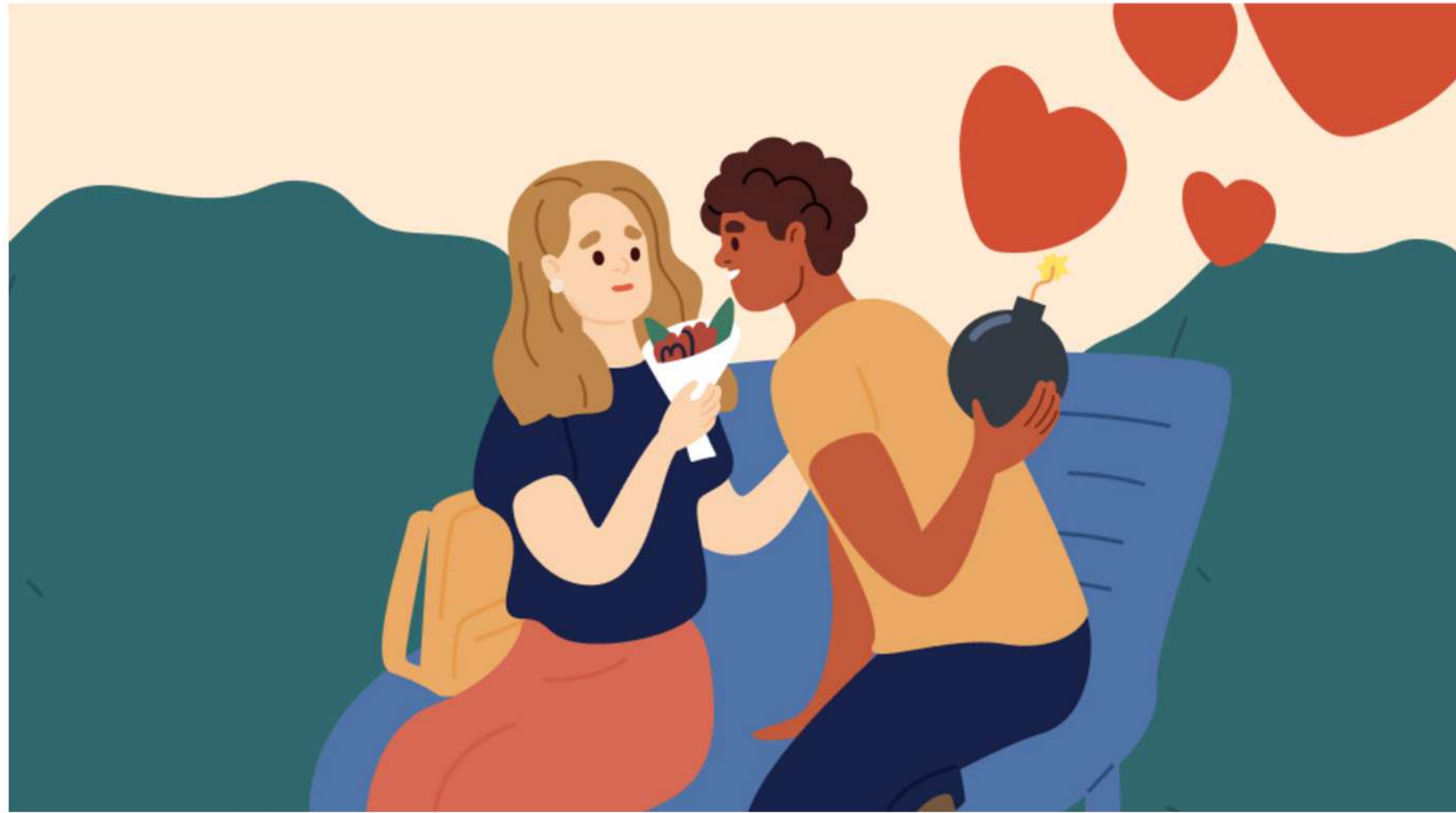
Cognitive dynamics within frame configurations (between the minds of the participants)

On the agent's side, the following frame profiling occurs

- 1) "trust"
- 2) "control"
- 3) "lie", illusion of validity/reliability

In this case, there is a deliberate muting of the "danger" frame. To build trust, the agent resorts to positively colored emotional vocabulary, compliments, and evaluative adjectives.





- **Love bombing** is an attempt to influence a person by demonstrations of attention and affection. It can be used in different ways and for either positive or negative purposes.

Examples (euphemisms)

collateral beauty – “positive aspects of a tragedy, such as the sense of community”

experiential marketing – “manipulative marketing tactics that exploit people’s emotions and insecurities”

friendly fire – “bullets or bombs from one’s own side that kill or injure one’s own people”

Cognitive dynamics within frame configurations (between the minds of the participants)

On the part of the experiencer, the frame “gullibility” is profiled. A recent study by a group of authors from different countries indicates that gullibility is a fundamental human characteristic (Forgas, Baumeister, 2019).

We believe that on the part of the experiencer, profiling of the “evidence, fact-checking” frame can be observed in order to avoid the loss of an epistemic warranty (terms of Lyons, V.Z. Demyankov). In this case, the experiencer turns into a counter-agent who is ready to resist manipulation.



Collective experiencer in media discourse

Representatives of different cultures can be involved in the process of interaction between participants in a manipulative act. In this case we are talking about intercognitive intercultural communication.

A experiencer representing a different culture is faced with the problem of using greater cognitive effort to recognize manipulation on the part of an agent, a representative of a different culture. In this case, one of the parameters that prevents successful inference is the so-called unconscious bias (unconscious stereotyping, prejudiced attitude).



Four spaces take part in the process of interaction between two cultures



the space of one's own culture



space of another culture



the intercultural space at the intersection of two cultures



the generic space

The interaction of the four mental spaces is based on the cognitive mechanisms of conceptual mapping.

Two cultures are in constant interaction in mutual enrichment, which allows us to highlight individual characteristic features of each culture and thereby contribute to the identification of specific features and common properties.

The specificity of one's own culture can only be understood in relation to another culture. We identify ourselves only in relation to another.

Bakhtin 1972





Should a culture/language translate itself into the terms of another culture according to its own ideas, without taking into account the foreign culture, or should it understand another culture taking into account both its basic values and the values of the other culture.

Accommodation of two cultures, two value systems is taking place. Such transposition opposes the idea of the hegemony of one culture over another (Iser 1995).



Conceptual mapping as a key cognitive mechanism

At the basis of meaning generation in manipulative discourse there is a general mechanism of conceptual mapping. As we know, cognition is based on a network of interconnected conceptual mapping between different knowledge domains.

The concepts of one knowledge domain are mapped onto the concepts of another knowledge domain.

How does human consciousness project/map between conceptual domains in the process of manipulative meaning generation?

The mapping mechanism is the main one in the hierarchy of cognitive mechanisms at several levels. It defines such lower-level mechanisms as conceptual widening, conceptual narrowing, conceptual metaphor, conceptual metonymy.

All of the listed mechanisms are a manifestation of secondary conceptualization.

Conceptual mapping as a key cognitive mechanism

Thus, it seems possible to talk about **polydomain process** of conceptual mapping which highlights the complex processes of perception and interpretation of information.

Manipulation results in distortion of existing conceptual mapping within the mind of the experiencer. Targeted conceptual mapping allows the agent to form the desired conceptual narrative, which makes manipulation difficult to identify.

Large Language Models (LLM)

With the development of AI technology manipulative strategies and mechanism are becoming difficult to identify.

In recent years, large language models - GPT-4 - have begun to be used as a manipulator. Modern language models use neural networks to represent words in a multidimensional semantic space and are neural language models with billions of parameters, trained on corpora of hundreds of billions of words.

GPT-4 chat is effectively a modern LLM. Although comparing the processing power of neural networks and the human brain is difficult and problematic, the estimated 1.5×10^{14} synapses in the adult neocortex are approximately 850 times the number of parameters in GPT-4 (1.75×10^{11}).



Large Language Models (LLM)

Large language models are good at generating coherent text and are also capable of theoretical linguistic analysis with varying degrees of accuracy. GPT-4 is the first LLM that can perform sequential metalinguistic analysis and is also effective on syntactic, phonological, and semantic tasks.

However, LLM has problems with the analysis of pragmatics, that is, at the contextual level, at the level of axiology. But there are already some examples of the inference of pragmatic information about our intentions as we repeat requests.

New Horizons in Language Science:

Large Language Models, Language Structure, and the Cognitive and Neural Basis of Language

May 13-14, 2024 @ The U.S. National Science Foundation (NSF). Alexandria, Virginia.

Thus, we tried to prove that in the process of manipulation, multidimensional cognitive dynamics is taking place within the configuration of frames both at the *level of frame interaction within manipulative mega mental space in media discourse* and at the *level of conceptual mapping as the main mechanism of manipulation*.

As a result of the study, it is planned to build a dynamic integrative cognitive mega-model of manipulation in media discourse.



Thank you!

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