Telementation vs. Interaction: Which Model Suits Human Communication Best?

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Models of communication may be classified into transmissive (linear, mechanistic, or 'telementational') and interactional (non-linear, dialogical, activity-oriented). Everyday conception is closer to the reification-transmissional metaphor of communication, although it admits some non-linearity. The dialogical or interactional paradigm reflects the reality of human communication to a greater degree.

Keywords: communication, model, interaction

1. Introduction

To disclose the characteristics of human communicative behavior and the flow of communication activities, modeling is widely used as a method when one object is explained by another object representing its structure and/or functioning. It is practically inevitable when we are trying to explain a physically non-existent, i.e. a mental or a behavioral phenomenon. Communication does not exist in the physical meaning of the word, and what we mean by communication are sequences of actions and their results, sometimes also physically non-existent, mental and observed indirectly through human behavior.

Models of communication are usually drawings or schemes where the constituent elements or participants are represented and their interrelation is shown. The way communication is represented in a model depends largely upon the conceptual approach of the scholar or on the scientific paradigm it adheres to. A model may also reflect the needs of the scientific domain it belongs to. Since communication studies are a multidisciplinary domain, models might differ if they belong originally to technology or politics, sociology or linguistics.

The suggested models of communication may be classified according to the paradigmatic approaches which they were based on. Two major paradigms that are often singled out in viewing communication can be named transmissive (linear, mechanistic, or ‘telementational’) and interactional (non-linear, dialogical, activity-oriented). The term ‘telementation’, or, in other words, ‘thought-transference’, belongs to Roy Harris who applies it to what he calls the ‘classical model of language’ (Harris, 2007, pp. 21-22). A bit of critical irony is felt in applying this term to the "transferring thoughts over a distance by means
of words”, which is enhanced by its apparent similarity to the word ‘telepathy’.

Communication in the transmissional paradigm is presented as a unidirectional process of coding and transmission of information from a source to a receiver, via a channel. In the interactional paradigm, communication is viewed as mutual activity of the communication participants, aimed at developing a shared consensual view upon things and actions performed with these things.

According to the transmissional paradigm, information is transmitted from the sender to the receiver, whereas the interactional paradigm states that information is produced (or re-produced) by the recipient (under the influence of the sender).

According to the first approach, the environment creates noise and may interfere with communication, while according to the second approach the environment is inevitable and influential context of communication.

We are going to argue that the second, interactional paradigm reflects the reality of human communication better.

2. Communication Paradigms: A Historical Sketch

The history of communication studies reflects both transmissional and interactional approaches. Lots of models suggested by the communication researchers support either the linear or the non-linear interpretation of the communication process. There are also models which might be considered intermediary as they reflect the functional and teleological aspect of communication, although they remain mainly linear, monodirectional. Let us give a brief review of the most significant models of communication.

2.1. Linear models

Claude E. Shannon (1916-2001) was the first who suggested a model of communication to optimize radio, teletype or telegraph interchange in late 40-s (Shannon, 1948, p. 380). Extended by Warren Weaver (1894-1978) to embrace other instances of communication, the “mother of models” included an information source, a transmitter or coder, a message, a transmission channel, a decoder, and a receiver (Shannon, Weaver, 1963). Particular attention to the issue of noise was later developed into a search for effective communication in general. The “telephone” terms were later applied metaphorically to other communication systems, including natural and human ones. Shannon’s model lies at the basis of any other communication model, although nowadays it might be regarded as too restricted to give detailed description of human communication.

Another model was suggested by Harold D. Lasswell (1902-1978) to be applied primarily in the sphere of political communication and propaganda. Lasswel’s formula was presented in the form of a wh-sentence: Who says what to whom in which channel with what effect (Lasswell, 1948, p. 37). The resemblance is far from being coincidental, in fact, the structure of the statement reflects the prototypical communicative situation, thus giving way to connect the form and the pragmatics of human communication. What was significantly different in Lasswell’s approach – that the model included the aftereffects of communication, thus bridging the theory and the applied communication studies, and becoming less “mechanistic”.

The well-known Canadian researcher Marshall McLuhan (1911-1980) was particularly concentrated on the transmission channel, and his words “the medium is the message” became a motto for the contemporary communication environment which includes technologies for multicode messages where the visual channel performs the leading role. McLuhan compared the stages in the development of communication
media and those in the development of culture, and his prophetic ideas about the ‘global village’ in communication were proclaimed years before the expansion of the Internet (McLuhan, 1995).

2.2 Functional Models

Functional models paid more attention to the purposeful, teleologic (from Greek τελέιον ‘aim, purpose’) nature of human communicative actions.

Karl Bühler’s (1879-1963) functional model is one of the most compact and rather popular in applied domains. He introduced three major functions of language and communication, related to the two communication participants and the message: expressive, related to the sender (speaker or writer); appellative, related to the receiver (listener or reader); and representative, the function of transmitting information in a message (Bühler, 1969, pp. 98-99).

Roman O. Jakobson’s (1896-1982) functional model included six components: the sender (or the addresser), the message, and the addressee (or a receiver) were similar to Bühler’s interpretation, whereas the code (or the language), the context and the contact were added by Jakobson (Jakobson, 1963, pp. 350-377). Context in Jakobsonian interpretation is related to the content of the message, the information transmitted, and to the situation in the real world (or its fragment) reflected in the message. The contact is related to the regulative aspect of communication, to establishing, supporting and ending an interaction. Each constituent element is ‘responsible’ for the specific communicative function of the message. Following the tradition of the Prague school, one of the founders of which was Jakobson, the model is teleological, or purposeful, thus it displays the purposeful nature of language and other communicative systems, or the functions or purposes of using its separate units, utterances or texts. The model appeals to the human nature of communication, underlying the role of the language user, or communication participant.

Functional models have a wider explanatory potential and application sphere than mechanistic ones. Thus, Bühler’s model served as a fundament for a text typology very widely applied in language teaching and translators’ training. Peter Newmark and Catharina Reiß suggested a typology which included three functional types of texts to be translated: content-oriented or informative, author-oriented or expressive, and reader-oriented or vocative (Reiß, 1971, p. 20ff.; Newmark, 1988, pp. 40-47). Communicative analysis of the text plays the leading, or even the decisive role in selecting an appropriate strategy of translation, as well as in finding definite solutions.

2.3. Non-Linear Models

Norbert Wiener’s (1894-1964) cybernetics appeared simultaneously with but independently from Shannon’s model of communication (Wiener, 1948). Wiener’s conception of communication introduced the notion of feedback, thus questioning the linearity of information transfer and opening ways to explaining human communicative interchange in a more dynamic and non-linear manner. Human interaction and dialogue were stressed by Wiener’s quotation from the father of fractals theory Benoit Mandelbrot and the ‘cybernetically-minded philologist’ Roman Jakobson: “They consider communication to be a game played in partnership by the speaker and the listener against the forces of confusion, represented by the ordinary difficulties of communication and by some supposed individuals attempting to jam the communication” (Wiener, 1988, p. 92).

The last quarter of the previous century also witnessed the spread of the ideas of dialogism, although originally expressed earlier. Dialogical approach to language and communication is
mostly associated with Mikhail M. Bakhtin (1895-1975), the Russian literary critic and language philosopher. There are at least two main ideas in his approach that are of particular significance to communication studies. First of all, every utterance is addressed to someone, there is no speaker without a recipient. Secondly, it is only in a context that any utterance acquires its meaning; this idea is closely related to Bakhtin’s notion of chronotope (Greek χρόνος ‘time’ and τόπος ‘place’), representing the intrinsic connection between time and space in texts.

Whereas linear models can be named ‘speaker-oriented’ or ‘sender-oriented’, Bakhtin’s dialogism restores the rights of both communication participants, the speaker and the listener: “When I am construing my utterance, I am striving at defining it actively; on the other hand, I am trying to anticipate its effect, and this anticipated answer, in its turn, also actively influences my utterance” (Bakhtin, 2000, p. 293).

Although Bakhtin did not suggest any elaborate model, his ideas are sometimes treated as a dialogical model of communicative interaction. Tzvetan Todorov went even further, working out this model for Bakhtin and contrasting it to the Jakobsonian one (Todorov, 1984, pp. 54-55):

<table>
<thead>
<tr>
<th>Bakhtin</th>
<th>Jakobson</th>
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<tbody>
<tr>
<td>object</td>
<td>context</td>
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<tr>
<td>speaker</td>
<td>utterance</td>
</tr>
<tr>
<td>listener</td>
<td>sender</td>
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<tr>
<td>message</td>
<td>receiver</td>
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<td>intertext</td>
<td>contact</td>
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<tr>
<td>language</td>
<td>code</td>
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However, the specific role attributed by Bakhtin to the listener is not clearly reflected in Todorov’s representation. His most important accent lies upon intertextual relations, uncertainty and ambiguity in decoding the information, and upon the possibility of conveying implicit meanings. As for Bakhtin, the two counterparts in communication meant an “encounter of two subjects”, a joint action performed by communication participants, a text as an event, an utterance as a node, through which “language enters life”.

Bakhtin’s ideas were very widely echoed in the world of linguistics, literary studies, communication theory and philosophy in the past decades. Roland Barthes (1915-1980) and Julia Kristeva introduced the concept of intertextuality: every text is a mosaic of quotations, direct or indirect references to the formerly read texts of others. A similar concept of the “associative field” or champ discursif “discursive field” of utterances or statements was put forward by a French post-modernist philosopher Michel Foucault (1926-1984): every statement has possible relations with the past and opens up a foreseen future (Foucault, 1969, 38-41). These ideas by Kristeva and Foucault have nowadays been privatized by various domains of research: cinema semiotics studies, fashion and dress semiotics, psychoanalysis, political and advertising discourse analysis, etc. Advertising, for example, very often exploits the suggestive and persuasive power of intertextual allusions, cf.: сильный, но нежный Панадол “strong but delicate (Panadol)” < строгий, но справедливый отец народов “stern but fair (father of nations = Joseph Stalin)”; абсолютная монархия “absolute monarchy” > абсолютная Россия “absolute Russia” > водка «Абсолют» “The ‘Absolut’ vodka”, etc. The recipient of the advertising message indirectly becomes its co-author, using the fragments of earlier-read texts as an instrument of decoding and interpretation.

3. The Addressee is the Message

Functional and much more transmissional models do not always clearly display the role of the addressee, limiting their view to what the speaker thinks about the listener, about the possible response. The general language background
and the social character of communication is disregarded, the model is limited to two minimal participants whereas group and mass communication require special consideration and have to be taken into account. Although “the addressee factor” (Arutyunova, 1981) is presented in some of the models, the feedback and the addressee’s response to the message are rarely taken into account. The model thus remains monodirectional (from a sender to a receiver). In fact, each of the participants is engaged into communication on equal terms; moreover, the participants regularly exchange their roles of addresser and recipient.

If McLuhan used to say that the medium is the message, we can now say that the recipient is the message. Let us have a look at the following interchange (translated from Russian):

I Saw It Myself (2005-08-11)

The young people are from Channel 1. <…>
The old man talks either to himself, or with the young men, it is not clear.

− Kids, how fine it is that the war is over... Kids, I was in the war, I got two medals, shell-shocked, I'd never wish anyone would... Thank God, the Chechnya is over... Our boys are there... Now we’ll have a better life... War is a nasty thing...

One of the young men carrying a camera raises his head and says:

− It's not over, father, not over.
The old man says:

− How can it be that it's not over? How can it be that it is not over, it is over! I saw it myself on TV yesterday. All the military actions are over. The forces are being pulled out. The war is over, kids.

The other young man says:

− It's not over, father, he knows better.
The old man says:

− How can it be that he knows better? I saw it myself! The war is over! It was in the news yesterday. The actions are stopped. The troops are pulled out. That's all.

The young man without a camera says:

− Look, father, we know better. Look at him, he has been sent seventeen times there. Just a week after the last one. I was there nine times. The war goes on, and it will last for a long time.

The old man won’t believe. The old man says:

− What are you telling me? The war is over, one has to rejoice at the good news, and what are you doing? You want more people to die? The antichrists! You are the reason why...

The old man constructs his own reality, comfortable for him, and would not accept any contradictory information from the outside. This recipient is clearly the author of his own information.

Heinz von Foerster (1911-2002) in cybernetics of the second half of the 20th century pointed out the dialogical essence of communication and rephrased a well-known saying: It needs two to language (von Foerster, 2003). He also coined a hermeneutic aphorism, close to Roland Barthes’ ideas about interpretation and understanding of texts: The listener, not the speaker determines the meaning of an utterance.

Von Foerster’s ideas essentially influenced the Chilean biologist and ‘cognitive therapeutist’ Humberto Maturana who proposed the idea of consensual interaction of autopoietic (self-organizing and self-creative) systems, and language was one of them. He compares ‘languaging’ to dancing, the essence of which does not lie in competition and direct control of each other, but in cooperation, in mutual coordination of behavioral actions. Human beings are biologically loving (cooperative) beings, and language is our biological manner of living (Maturana, Verden-Zöller, 2008, pp. 34, 61-66).

Maturana and his follower Francisco Varela consider the phrase ‘transmission of information’
a misleading ‘metaphor of the tube’ since there is no real, physical transmission of anything: “biologically, there is no transmitted information in communication” (Maturana, Varela, 1992, p. 196). In fact, it is a feature of naïve linguistic minds to consider language as a collection of reified units, ‘things’-words that are exchanged in communication; the myth neatly defined chosisme by Gaston Bachelard, a French philosopher (Bachelard, 1983, p. 39). The everyday language myth presupposes that communication is material transmission of information by means of reified objects and words. The reality of communicative exchanges, anyhow, does not display any transmission; linguistic interactions constitute joint activity which leads to some sort of ‘echoing response’ in the recipient’s mind. The response is practically never absolutely similar, but subject to variation due to situational and personality factors. Communication is behavioral coordination in the domain of social coupling and consensual interaction.

If we ask, like in a very simple psychological experiment, a group of people to imagine an apple, some would think of a red apple, some of a yellow or a green one, some even of a rotten apple or of a computer brand. The information is thus generated in multiple variations in the mind of a receiver under the influence of the sender, but is not transmitted. The word acts as a trigger, not as a container.

In the case of interlinguistic or intercultural communication, or translation, the variability of interpretations concerns both the formal (words), and the notional (meaning) sides of communication process. The model of communication in translation processes is trifold, the translator acts as a receiver during the first stage and as a sender at the third stage. The intermediary stage is translation process. In no case the process is linear; the translator’s activity involves mechanisms of probabilistic forecasting while reading for translation and when translating, it also includes foreseeing possible translation difficulties, or the recipient’s reaction. The mechanism of auto-monitoring is also involved at further stages of the translation process, introducing possible corrective moves, etc. Thus, the process of translation involves several lines of multidirectional activities, and it should be taken into account in the process of modeling.

The reality of intercultural exchanges transcends the linear paradigm, giving a more varied content to the whole scheme: cultural contexts and their variations, translator as an active agent who does not just mechanically reproduce the contents of the original text, the addressee factor, the factor of the third-party observer, etc. Translation quality in such a model can be assessed through communicative equivalence, similarity in reflecting the world, and similarity in aftereffects.

4. Communication is not Transmission of Information

Naïve language users share a myth about language and communication which says that transmission of information is the primary task of language. It is taken for granted even in many linguistic books that the basic function of language and other communication systems is informational, or referential, or cognitive, if viewed from a slightly different angle. But as we now see, information is never transmitted; it is produced or reproduced by the recipient, although certainly the communicative actions of the sender act like a trigger for the recipient’s response. It does not mean, for sure, that we advocate the abandoning of this widely spread metaphor in everyday use. Languages are full of misleading “metaphors we live by” (Lakoff, Johnson, 1984). We do not, for example, think that the sun has legs when we say that the sun is
going down. With language it is a bit different, and both the naïve and the traditional views represent language and communication as a physical exchange of material objects, admitting the reification metaphor. One more feature of this misconception is that transmission is the primary task of language.

In any case, language is not bound to transmit information; it is able to do it. The major function of language and communicative systems is to organize, to control and to monitor human actions with the help of words or other signs. Transmitting information is subsidiary to this major necessity and is carried out within the limits set out by the needs of achieving the required effect and by the communicative possibilities which communication participants have at their disposal. According to Maturana, the phenomenon of communication does not depend upon what is being transmitted but upon what is happening in the receiver. Communication creates a consensual domain of interactions based upon a referential consensus.

In many cases, the message acts like a trigger to provoke joint actions not really transmitting any new information. For example, do the fans of a soccer team want to convey anything new to anyone else when they chant slogans like "Spartak – champion!"? Does a highly reputed company want to convey anything new to anyone when it advertises a well-known product? The words "It's a Sony" do not contain any information about the qualities of the product, they just borrow from the authority of the trademark the power to persuade the customer to buy it. Do the participants of a rally to support some marginal politician convey anything to anyone else outside their small community? Even if anything that looks like information is included in such texts, the basic function of such messages is not to convey information, but rather to unify the joint actions of the communication participants, or to draw a borderline between them and "the others", very often alien or antagonistic to this social group, or to support the relations of power and submission in the social life or economy, etc.

A very interesting phenomenon is observed when we contrast advertising texts in a longitudinal survey, i.e. those of 50 or 100 years ago and modern texts of the same producer and about the same product. For example, Gillette in 1913 published very voluminous texts about its shaving products. The texts contained an abundance of positive information about the razor sets:

Аппарат Жиллетъ благодареній подарок к Пасхѣ...> Обратите вниманіе на сгибаніе, при помощи котораго совершается автоматическая перестановка <...> Неподвижное достоинство аппарата для бритья Жиллетъ состоитъ въ его закаленномъ стальномъ клинкъ <...> Наши новые клинки Жиллетъ вслдствие ихъ гладкости и острыю всюду заслужили себѣ похвалу <...> Съ помощью Жиллета вы можете легко брить себя.

A fragment from another text:

Результатъ научной конструкціи. Поразительная простота руки и сгибаємье клинкі съ возможностью перестановки для всякой бороды <...> согнутая предохранительная дужка, 2 куска – очень тонкій гнущійся клинокъ и одна ручка, которая схватываетъ все вмѣстѣ. Клинокъ регулируется автоматически.

Such verbosity is in a sharp contrast with the modern Gillette texts: Gillette, the best a man can get = Жиллетт – лучше для мужчинъ нет! Lack of words, though, is substituted with visual information or symbols of the product's positive features (smooth shaving represented in a curving line, etc.).
An analogy is found in contrasting texts advertising “Tide” (detergent). Texts dating back to the 40-ies of the previous century combine symbolic information expressed with the help of color printing with quite a long verbal message describing the advantages of the product:

He wears the **cleanest** shirt in the city (a family pair is pictured, the husband in a sparkling white shirt, accompanied by a loving wife; sparkling and loving are symbolized by small lines around the shirt and hearts over the head of the wife, correspondingly) <...> Tide gets clothes cleaner than **any** soap! <...> Not only cleaner, **whiter** too! <...> and **brighter**! <...> the fabric feels so soft, etc.

The modern texts advertising the same product are confined to a couple of ‘neutral’ characteristics: **Works in all machine types.** **Dissolves quickly in hot & cold water,** etc.

Such observations display what was named **deinformatization** of the modern communication processes, especially in such spheres as trade or advertising. At the same time, while information declines, the basic function, that of organizing and controlling mutual actions of the seller and the buyer, remains intact. A similar tendency when the informative function cedes to phatic function is observed by researchers of the political discourse (Sheigal, 2004, pp. 68-70), the fact which also stresses the essential closeness of these discursive practices. Naïve communicants, again, consider that in political communication, during the election campaign, for example, the candidates transmit information about what they are going to do when they come to power. What really happens is some sort of consensual action: the voting side casts a vote following the speeches of the candidates, while this constitutes the real final aim of the latter. “Fulfilling promises” the candidate had informed the electorate about before voting is somewhat different.

5. **Deverbalization Trend:**
   **The Medium! No Message**

Deinformatization of communication is nowadays accompanied by a growing tendency towards deverbalization (while the pragmatics of action is preserved).

The seemingly paradoxical prediction made by McLuhan several decades ago (*the medium is the message*), supported by his idea of connection between the prevalent medium type and the type of culture, nowadays is turning into reality. The contemporary age is that of non-verbal, visual, multi-media, polycode messages, computer-aided communication, and hypertextuality. Modern adolescents very often “communicate” in the social networks for the sake of communication only, without having any information to be transmitted. Their communication is predominantly phatic: **Hello!** **Hi!** **I'm here!** **Look how cool I am,** **how cool my site is,** etc. Informative utterances are very rare in internet forums or chats. In a survey performed as early as 1998, we found that no more than 10 per cent of all the utterances used in forums were, or seemed to be informative: **Hi!** **Hi, DKelly, kisses and hugs!** **mmm Alessia kiss and hug; ok... time to flee people... Happy New Year, everybody!!!** etc. Only one utterance on the aforementioned page looked like asking for information, but in fact it was more phatic, establishing primary connection, than informative: **MMAJERCAK> a/s/l – .Lin Lin> 14/f/Mississippi, and when one of the participants really asked for information, there was no answer at all: PEANUTI> angel. need some puter help... can you help a damsel in distress??**

It is not only in the computer-mediated communication in the web that deverbalization of communication is observed. Long before this kind of media appeared and spread extensively, other non-verbal media, like illustrations, polycode printed messages, or comics as a visual substitute
of narration were used. The modern “clip generation” read about the world history or Anna Karenina from comics. The verbal constituent of such texts is minimal and represented in the so-called ‘bubbles’. Antagonists of Coca-Cola published a calendar where words were kept to a minimum; and one of the pages pictured a red bottle of a well-known shape, with a shooting mark over it and only one word: Smash! The word seemed to be redundant.

The modern “negative” tendencies (deverbalization and deinformatization) leave the main purpose of communication intact: joint action, influence and effect, interaction and event, etc. We can repeat that information is not the main purpose of communication, but a means to attain the basic aim which is triggering an action. The priority of regulative function over informative and other functions is indirectly supported by the history of developing sign activity by animals and humans. Some scholars assume that signs, and first of all non-verbal gestures, used to be part of an action, then separated from the whole and started to perform the function of a meta-action, designating the whole action (Klix, 1985, pp. 79-83). Semantics began from semanticizing elements of behavior. Language and communication in this sense can be regarded as a meta-activity.

6. Resume

The models of communication studied in this paper reveal the two approaches to communication discussed earlier, or the two paradigms in the communication studies: transmissive and interactional. The first one is more mechanistic, the second reflects the specific reality of human communication better. Everyday conception is closer to the reification-transmissive metaphor of communication, although it admits some non-linearity. It does not mean that researchers who proposed models we named linear were wrong: each model was supposed to fulfill the task it was designed for, and we can use any of these models depending on the task we have.

There is still much to be said about modeling communication processes, but we would like to concentrate on conclusive remarks:

- a communication model should include the parameter of time and reflect such features as non-linearity, dialogicality and procedurality;
- a communication model should include the teleological parameter; communication should be viewed as a goal-oriented human activity, or meta-activity;
- the sender and the receiver cannot be considered as either equal or unequal in the process of communication, they are engaged in dynamic and consensual (competitive, contractual, interactional) relations;
- the informative function is not the primary function of communicative systems, but a subsidiary one: we inform in order to act (to make an act, to appeal to an action);
- there is no telementation, no transmission of information, information is generated (reproduced) by the receiver who interacts with the sender;
- the outer world is not reflected in communication but constructed or shaped in it;
- the temporal dimension of communication presupposes that there is more than one (sender-receiver) direction, and more than one aspect of communication analysis: anticipation and prognosis of the receiver’s response, auto-monitoring and auto-correction of communicative actions by the speaker, making use of short-term and long-term memory in mechanisms of textual cohesion and coherence, intertextuality as the memory of culture, etc.
References


Модели коммуникации можно разделить на трансляционные (линейные, механистические, телементационные) и интеракциональные (нелинейные, диалогические, деятельностные). Обыденное представление тяготеет к вещественно-трансляционной метафоре коммуникации, но допускает элементы нелинейности. Диалогическая, интеракциональная парадигма в большей степени отражает реальность именно человеческого коммуникативного взаимодействия.

Ключевые слова: коммуникация, модель, интеракциональный.