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THE ROLE OF INTENTION
IN THE PROCESS OF INTERPERSONAL COMMUNICATION

The article deals with the issue of realization of intention in the process of interpersonal communication and the meaning of realization of intention for the level of communication effectiveness. The adopted analytical method treats intention as a dynamic process consisting of three functional stages. Two of these: pre-communication and post-communication have been given particular attention. It is assumed that processes involved in the realization of these two stages may have fundamental significance for effectiveness. The presented research is an attempt to operationalize the selected aspects of realization of intention and their impact on the level of communication effectiveness.

Introduction

In most definitions found in the literature of psychology effective communication is explained through such terms as accomplishment of a goal and realization of an intention. Even though these terms are considered key to the level of effectiveness of the communication process, they are rarely found in the models presenting this process. It is not frequent that an attempt is made to empirically verify the influence of intention realization on communication effectiveness in real life communication. Thus we ask how a measurement of the level of realization of intention can be made and how to examine and present the interrelations between effectiveness of communication and realization of intention.

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Empirical research[1] 2[2] in this field is difficult due to many unanswered questions concerning intention (not only questions on fundamental terminology but its genesis as well). Tomasello (2002) claims that human ability to treat others as intentional beings who possess a mind "just like I do", ability to a large degree determined culturally, is one of the most important features differentiating humans from other primates. He states that "at around 9-12 months of age human infants begin to engage in a host of new behaviors that would seem to indicate something of a revolution in the way they understand their social worlds. ....Three manifestations of this new level of social understanding are especially important for language acquisition (and for the development of interpersonal communication – S.F and J.M.): (1) the joint attentional frame, (2) understanding communicative intentions, and (3) cultural learning in the form of role reversal imitation" (Tomasello, 2003, p.21). Realization of intention is a complex process. It requires activation of various aspects constituting intention: motivational-emotional, cognitive and communicational (Frydrychowicz, 1999).

We are aware that tackling such a broad issue as realization of intention in the process of communication demands concentrating, at first, on a limited range of this vast topic. We do not aspire, therefore, to present a comprehensive study of either realization of intention (which seems premature at this time) nor influence of intention on effectiveness of communication. The research presented in this article is only an attempt to operationalize a few aspects of the process of realization of intention and to study the influence of these aspects on the level of communication effectiveness.

The first part of the article presents a theoretical background for interpretation of realization of intention in the process of effective communication, its aspects and role in the level of communication effectiveness. We will also describe theoretical models, which will enable us to consider the process of realization of intention. The second part of the article presents the research procedure based on a theoretical analysis, as well as the research results.

Effective interpersonal communication and realization of intention

The search for the answer to the question about what is realization of intention and how it can be examined will start with analyzing a few definitions of communication effectiveness. Examining the definitions of effectiveness will

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[1] Debates on intention deeply rooted in philosophy emphasize that intention is connected with directing mental acts toward objects situated outside the subject (Tatarkiewicz, 1978, Bobryk, 1992). Discussion of intention is often intertwined with discussion of the essence of language and communication. For instance, Fodor defines intention by referring it to primal linguistic intentionality (Encyclopedia of Philosophy, 2003). Contemporary continuers of the topic are Searle (1999), Grice (1980) and Tomasello (2002). Their work, focused on the issue of communication, combines philosophical, anthropological, cultural and psychological views on intention, especially intention realized in the process of communication. The issue of intention in reference to the speech process was also presented by Frydrychowicz (1999), Frydrychowicz & Matejczuk (2006).

allow us to identify the character of correlations between effectiveness and re-alization of intention as well as recognize the most important aspects of realiza-tion of intention.

Habermas (2004) claims that an act of speech will be effective only when the speaker's intention is clear to the listener, i.e., is fulfilled[2] (cf also Szahaj, 1985; Retter, 2005; Seredyn, 2001). The fulfillment of intention can be understood as the reading of the intention in accordance with the original intent of the speaker, and the measure of effectiveness will be the range of overlapping of intention transmitted and received (Mellibruda, 1980). Miller (1980) also points to a similar role of inten-tion for the effectiveness of a given act of speech. He believes that correct reading of the intention of a communication partner is a necessary and indispensable condition for the process of communication to be seen as effective. In the author's words: "As long as the speaker's intention is not known, the meaning of an act of speech cannot be grasped properly" (Miller, 1980, p. 164). Lack of or deficit of understanding and proper interpretation of intention incorporated in a message is seen as the main factor impeding and hindering effective communication. The author thinks that "most misunderstandings do not occur because we cannot hear others, we cannot analyze the sentences they utter or we do not know the words they use, though all of these problems may sometimes arise. The main cause of difficulty in communication is the fact that we do not understand the speakers' intentions" (Miller, 1980, p.165). Likewise, Searle (1999, p. 229) defines communication not only as recognizing words of a given language, but "grasping the gist of what is being conveyed". He describes intention of communication as intention "to make the listener recognize what I want to say, that is, to understand me".

The above mentioned definitions indicate that effective communication involves not only exchange of content, but primarilyexchange of intention with which the content was expressed. A particular example of a process of communication where the separation between understanding of content and of intention can be seen is the exchange of indirect acts of speech (Kurcz, 1987, 1992; Grzelakowa, 2001; Pisarkowa, 1976, 1994; Searle, 1999). An indirect act of speech is one in which the speaker, in making a concrete statement, deliberately expresses a different intention than that suggested by the direct utterance. For the exchange to be effective, it must be read in two stages. Firstly, the direct meaning is read (understanding the meaning of a statement), and then it is necessary to recognize its intention, that is, "the speak-er's intention must be added to his words" (Pisarkowa, 1994, p. 17). Appropriate interpretation of indirect acts of speech is strongly influenced by the situation and circumstances in which the statement is made. Examples of such acts are jokes,
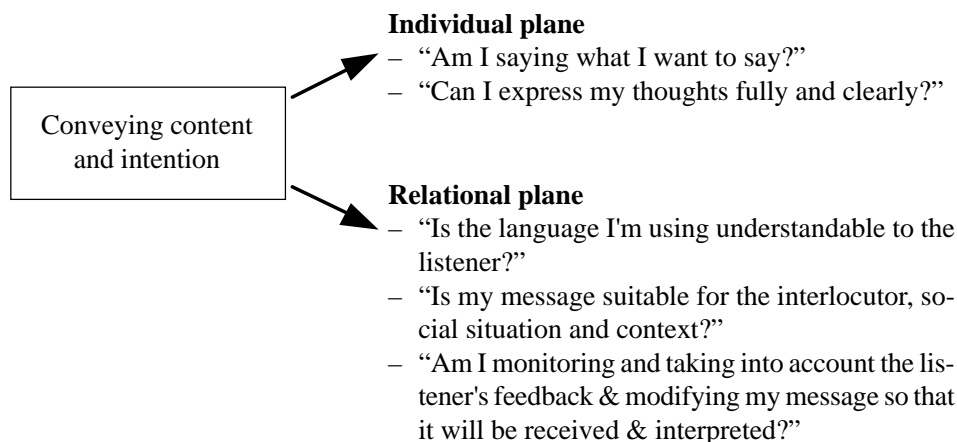
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[2] The fulfillment may apply both to reading of intention (locutionary power of utterance) and to a particu-lar result in the listener (perlocutionary aspect) (Searle, 1999). This problem was also discussed by Fry-drychowicz (1999). Based on the theory of Kintch and van Dijk, he differentiates between result of an activity and its consequence.

sarcasm and irony. Irony consists in discrepancy between direct words and the intended meaning. Example: *X borrowed somebody else's thesis* (Grzelakowa, 2001, p. 240) clearly shows coded, camouflaged content. The speaker's intention is not to convey information about a loan as the word "borrow" suggests literally. Considering this statement on the level of hidden intention, we can interpret it as an attempt to mitigate somebody's wrongdoing (euphemism) or to strengthen the negative implication of that deed (irony). Thus effective communication can take place only when we succeed not only in proper reading of the direct statement, but also appropriate interpretation of the hidden intention.

The cited definitions focus on the aspect of proper reading of intention. The speaker's task is thus to construct the message in such a way that it is correctly understood and the listener's task is to recognize the speaker's intention. The aspect of realization of intention, in reference to the speaker's role, was highlighted in another definition of effectiveness. An effective participant in the process of communication, in this sense, is the one who "can stimulate in the mind of another person a meaning they intend to or want to stimulate" (McCroskey, 1996, p. 35). This last definition indicates that intentional "stimulation of meaning in the mind of another", i.e., making another person understand and interpret correctly the content and intention of an utterance is in fact a kind of skill. The author writes that an effective participant is the one who *is able to* convey his intentions, i.e., possesses the appropriate tools and skills to do it. Therefore, realization of intention applies both to the process of producing and conveying utterances and to the ability of apt identification of intentions. Kurcz (2000, p. 130) defines effectiveness as "ability to convey your own and understand another's intentions". This definition underlies specific abilities needed for realization of intention. So the question arises what exactly in the process of communication these abilities might relate to.

To answer this question, let us first consider what task the participant faces in the process of communication. First of all, an interlocutor must frame mentally an utterance which will express his thoughts. This involves the ability to construct an utterance conforming to its true meaning (in terms of both content and intention). However, the ability to clearly express one's thoughts does not guarantee effectiveness of the communication process. The second necessary condition, apart from precise verbalization, is to make the statement understandable, clear, and appropriate for the interlocutor. The statement must, therefore, take into account such external parameters as the particular social situation, the context of the exchange, the traits and competence of the interlocutor. Only when these conditions are met can there be a concurrence of intention expressed and received. Clearly, two planes mingle here: (1) individual – articulation of thoughts and (2) relational – taking into account the interlocutor and context. So to achieve the goal of a given exchange, the speaker is obliged to take into consideration both planes: the relation between his or her own thoughts and actual words as well as accordance between conveyed content and how it is being understood and interpreted.

Figure 1. presents examples of problems the interlocutor faces regarding the discussed planes

Individual plane
– "Am I saying what I want to say?"
– "Can I express my thoughts fully and clearly?"

Conveying content and intention

Relational plane
– "Is the language I'm using understandable to the listener?"
– "Is my message suitable for the interlocutor, social situation and context?"
– "Am I monitoring and taking into account the listener's feedback & modifying my message so that it will be received & interpreted?"

A low degree of realization in one of the above areas of intention may in consequence contribute to a low degree of realization of intention in the whole process of communication, a low degree of realization of the goal, and thus result in ineffective communication. It can be assumed that each act of communication may lead to effective communication only when these two planes merge, i.e., realization of the individual aspect (I said what I wanted to say) and the interactive aspect (there is exchange of intentions between interlocutors). Defining effectiveness of communication in conjunction with realization of intention, we can describe it as a simultaneous concurrence of the individual intentional plane and the interactive intentional plane[3]. The question still remains what factors contribute to raising the degree of realization of intention, and thus also to enhancing the level of effectiveness of a given process of communication.

Interpersonal communication as intentional process

The quoted definitions of effective communication show also that the process of communication includes not only phenomena occurring directly between persons in a situation of communication, but involves a broader phenomenon in which there must be space for what precedes and what follows that process, i.e., the

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[3] Naturally, we assume a two-way communication model, involving active participation of both speaker and listener as well as exchangeability of their roles in the process of communication. The mentioned planes (individual and relational) refer to each interlocutor, who occupies the role of speaker and listener alternately.

result. Effective communicating is after all expressing that which a speaker "intended to or wanted to stimulate" (McCroskey, 1996, p. 35). Therefore, certain intentions connected with what the speaker wants to communicate or achieve emerged before engaging in the process of communication (and are included in what we called the individual aspect). They precede a given process of communication, and constitute the cause (inspiration, need, pretext) for initiating that act of communication. The process of communication is supposed to lead to an intended and expected state of affairs. There are, thus, certain results and consequences of a given act of communication beyond the moment of the exchange itself[4], there is an evaluation of the process of communication as well as of the process of realization of intention, which happens after the conversation. To be able to trace the whole process of realization of intention (from the moment of appearance of an impulse to speak, through its realization to the final evaluation of the communicational process and its consequences), it is necessary for the process of communication to include not just the moment of communicating, but also that which occurs before and after the conversation. The necessity of such an analysis of the process of communication was pointed out by McCroskey (1968/2001, 1996) in his model of rhetorical communication[5]. His definition of communication, which concentrates to a large degree on the issue of purposefulness of communicative activity and the phenomenon of realization of intention, characterizes the process of communication as: "intentional fulfillment of a goal by stimulating specific meanings in the mind of another person" (McCroskey, 1996, p. 6). According to the author, the fulfillment of the goal can be analyzed in three subsequent stages:

(1) Stage prior to communication – this stage encompasses conception of an idea, determination of intent and selection of meaning.

(2) Stage of actual communication – this stage involves the encoding process (creation of the message, adaptation of message to the situation, transmission of message, feedback, induced adaptation) and decoding process (hearing-seeing, interpretation, evaluation, response).

(3) Stage after communication – this stage includes subsequent thoughts and actions inspired by the completed process of communication.

The specificity of this model consists in allowing consideration of communication in broad time perspective. Most models in literature focus mainly on the stage of actual communication. McCroskey's model allows overcoming that limitation. According to the author realization of intention is not bound by the time of

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[4] Cf: locutionary and perlocutionary effect: Austin (1993), Searle (1999).

[5] McCroskey's rhetorical communication is not limited to public speaking but applies to a much broader range of situations than implied by the dictionary definition. In his definition rhetorical communication encompasses all situations in which achievement of goal occurs during interpersonal communication (synonyms are: purposeful communication and intentional communication).

verbal exchange (actual communication), but constitutes a process spanning a much broader time frame, from *preparatory period*, through *actual communication*, to *final evaluation*, arrived at after the stage of actual communication.

The broad time frame proposed by McCroskey, apart from enabling analysis of phenomena occurring between interlocutors, allows therefore for viewing communication as a purposeful, intentional process taking place from the moment of emergence of an intention, decision on its realization, realization itself in the process of interaction with another person to final evaluation of the effects of communication. The proposed time frame enables observation of such essential aspects of effectiveness as intention, results and consequences of communicative behavior as well as evaluation of the degree of realization of the intention.
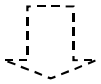
Even though McCroskey's model is one of very few models that include the term intention, it does not, however, provide the answers as to the exact course of the process of realization of intention in the communicational process. Neither does it offer the direct possibility of operationalization, measurement of the level of realization of intention, or examination of interdependence of the level of realization of intention and the level of effectiveness of communication.

Such an opportunity is found in Gollwitzer's model (1987, 1999), which corresponds with McCroskey's model in the area of realization of intention. It does not deal directly with realization of intention in the process of communication, but is a broader model meant to examine the effectiveness of purposeful activity. Since we defined communication as a purposeful and intentional activity, application of Gollwitzer's model seems justified in research of phenomena present in interpersonal communication. Gollwitzer's model of realization of intention and his research procedure served as the basis for our examination of interdependence between the level of realization of intention and communication effectiveness.

Process of realization of intention and process of communication

Peter Gollwitzer's model is an attempt to describe stages of the process of realization of intention while characterizing their specificity and the functional significance of particular stages of the whole process. This model applies to every kind of deliberate action, so we can also utilize it for the process of speaking and communicating. Gollwitzer states that action starts with emergence of a desire. The desire appears at first as an abstract, not yet precise inner purpose – it constitutes the first stage of the process of realization of intention, in which so-called *goal intention* is established. Goal intention is understood as the inner representation of an abstract goal. During the second stage, goal intention, confronted with external reality and made more concrete in an actual plan of action, becomes transformed into a so-called *implementation intention*. The next stages are: *action intention* – responsible for action and protection of intention from competitive urges until the goal is reached; and *termination intention* – connected with an

Figure 2. Comparison of stages – McCroskey's rhetorical communication model and Gollwitzer's model of realization of intention

EFFECTIVE COMMUNICATION MODEL (McCroskey)	INTENTION REALIZATION MODEL (Gollwitzer)
Pre-communication stage	Goal Intention Implementation Intention
Actual communication stage	Action Intention
Post-communication stage	Termination Intention

evaluation of the degree of realization of the intention and evaluation of the undertaken action. Even though the author focuses on the description of characteristics and roles of each stage, he ascribes cardinal importance to all the points of intersection between stages. They may prove to be the crucial points in the course of realization of intention because they require activating different systems contained within the process of realization of intention, i.e. motivational, emotional, cognitive, volitionary and action control. Gollwitzer assigns vital significance to the moment of transition from goal intention to implementation intention.

Analysis of McCorkey's model of communication and Gollwitzer's model of realization of intention reveals many similarities, mainly connected with incorporating a broad time frame and treating action as a process commencing with an idea, a goal and concluded with evaluation after completed action. Such a perspective facilitates a comprehensive examination of the process of realization of intention. Furthermore, comparable criteria are applied in the division into stages in both models, which clearly demonstrates their correspondence. Comparison of the following stages (Figure 2).

A fundamental similarity lies also in emphasizing the role of the preparatory and final stages as to effectiveness of the entire action. The authors stress that stages indirectly related to actual action may have a crucial significance for the action's success. Therefore we would like to focus on these two aspects of realization of intention: (1) implementation intention and (2) termination intention, as proposed in Gollwitzer's model.

Creating implementation intention involves (1) confrontation of an abstract goal with a concrete situation, i.e., establishing time and space conditions for a set up, and introduction of intention as well as (2) deciding on a sequence of actions, i.e., creating a plan of action and choice of strategy. Implementation in this sense is not only a cognitive elaboration but is also connected with the motivational and volitional systems responsible for stimulating activity (activating a plan status), and emergence of a so-called subject's position of involvement, i.e., taking on a personal commitment for action, willingness to perform a task (Kuhl, 1987; Marszał-Wiśniewska, 1999). A large amount of research conducted by Gollwitzer and his associates helped to prove the hypothesis about the key role of implementation for undertaking and performing effective action (Gollwitzer, 1987, 1999; Gollwitzer, Brandstätter, 1997; Gollwitzer, Heckhausen, Steller, 1990; Gollwitzer, Schall, 1998). Implementation of intention has become the basis of our research on interrelationships between the level of realization of intention and effectiveness of communication. We posed a question whether manipulation of implementation intention will facilitate changes in the level of effectiveness of communication. We are also interested in the processes taking place in the post-action stage (evaluation stage) and their impact on effectiveness of communication. So the question we ask is to what degree is communication awareness of participating subjects (regarding evaluation of their own level of realization of intention in different communicational situations – called subjective level of realization of intention) is adequate to the level of effectiveness achieved in a research task.

Methods

A theoretical analysis of the interrelations between effectiveness of communication and realization of intention has become the basis for development of a research procedure. We are aware that realization of intention is not the only determinant in communication effectiveness. Other factors include general communicational competence and age, and were taken into consideration in our study. The basic challenges that appeared during research preparation were: operationalization of intention and examination of the effectiveness of interpersonal communication. Research tools and a research plan were devised to measure the variables. The study had an experimental character and was conducted in schools in two age groups: junior high school students (13-14 years old) and senior high school students (16-17 years old). These two age groups were chosen due to the fact that their developmental changes involve acquiring and developing the capacity for hypothetical and deductive thinking. These changes may result in transformation of meta-communicational consciousness, which is connected with the ability to realize intention. We presume that development of formal thinking may be connected with awareness of one's own communicational intentions and capability of their realization.

The fundamental research problem concerned the influence of chosen aspects of realization of intention (related to the pre- and post-communication stages) on the process of communication and its level of effectiveness.

So we want to find out:

1. Do changes in the level of realization of intention – consisting in manipulation of one of the stages of realization of intention (establishing implementation of intention) bring about changes in the level of effectiveness of communication?

2. Is effectiveness of communication related to the subjective sense of realization of intention?

3. What changes are manifest in the process of realization of intention in relation to age?

4. Whether and how communication effectiveness is related to the interplay of the level of realization of intention, communication competence, and age?

Selected independent variables

Level of Subjective Sense of Realization of Intention

Level of Subjective Sense of Realization of Intention (SSRI) is connected with the post-communication stage. It is an aspect of meta-communicational consciousness concerning the final evaluation of the level of realization of intention in various communicational situations. Measurement was taken by applying a designed questionnaire (QSSRI). Subjects describe in the questionnaire to what degree they managed to fulfill their intention in various social situations involving communication (evaluation on a 1 to 5 scale). The questionnaire consists of 21 items included in three main planes of communication:

1. exchange of information
2. coordination of tasks
3. exchange of emotional and relational content.

Each item in the questionnaire introduces a description of a problem situation, characteristic for one of the three mentioned planes of communication. The situation descriptions were chosen in such a way that subjects could see them as tasks they could potentially take part in. In other words, we designed communicational situations appropriate for the studied age groups, so that students of junior and senior high school would find them engaging.

Constructing Implemental Intention

The Variable of Constructing Implemental Intention (Impl.) applies in the second stage of Gollwitzer's model.

One of the following two values was designated to the variable depending on a subject's involvement in the control or experimental group.

1. Value 1 – the subject created an implementation intention before starting the task, i.e., was encouraged to think about the character of a communicational situation, specificity of an interlocutor, designing a plan of action, selecting concrete, adequate to situation strategies of action, establishing concrete goals.
2. Value 0 – subject did not create an implementation intention before starting the task, i.e. upon hearing the instruction, he or she commenced the task.

Other independent variables were taken into consideration as well.

1. Communicational Competence – the basis for the division of subjects into groups of low, average and high competence and pairing them (sender and receiver) so that the results could be comparable.
2. Spatial Thinking – connected with the graphic character of the task. This variable allowed for controlling the influence of spatial thinking on the results.

Level of effectiveness of communication – dependent variable

Effectiveness of communication can be defined by *objective criteria* as well as *subjective criteria*. Due to its multi-aspect nature, this variable was presented through a set of particular dependent variables.

1. Time of task completion – objective criterion
2. Level of task completion – objective criterion
3. Level of satisfaction in the communication process – subjective evaluation by subjects as to the degree of agreement and satisfaction derived from interaction with a partner while carrying out the experimental task.

Research procedure

The idea of the experimental task was:
– to arrange a communicational situation imitating a natural one,
– content of communication consisted in carrying out a task together in such a manner that its results could be evaluated objectively,
– work on the task and its feasibility depended mainly on communicating of subjects (engaging in communication as the only means of performing the action),
– the task had to be simple enough and to require specialistic knowledge or competence other than communicational to the least possible degree – so that the level of accomplishment of the task could be judged on the basis of communicational competence.
– at the same time the task was difficult enough so that it demanded subjects' involvement in the process of communication and application of communicational skills (e.g., negotiating meanings, correcting misunderstandings, taking into account feedback).

Out of many considered propositions of tasks, a graphic task was finally selected. Two subjects were involved. The sender received a figure of five squares

Figure 3. Diagram used for the experimental task
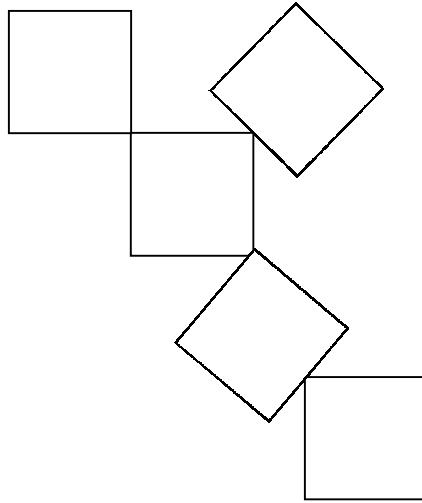
joined in various ways (Figure 3). The receiver was given a blank piece of paper. The task they faced was to convey maximum information through the process of communication so that the receiver would be able to make an image as close to the original as possible. This task requires close cooperation between subjects, working out a communicational strategy, negotiating meanings, constant monitoring whether the receiver understood the meaning and interpreted the intention correctly. In addition, the task necessitates selection of a manner of communication that would allow the most precise and fullest expression of the sender's intention. Thus the task demands simultaneous monitoring of two planes of intention described in the theoretical section: individual aspect (do I say what I want to say) and interactive aspect (is my meaning clear to the interlocutor). Although the situation was constructed in a way most resembling a natural process of communication, the task was designed to emphasize the significance of communication itself and to stimulate the subjects' concentration on the manner of communication.

304 high school students (150 juniors and 154 seniors) participated in the study. After screening research based on the level of competence of subjects (low, average and high), and matching pairs (sender and receiver[6]), 184 students were chosen to perform the task – 92 pairs (47 in the control group and 45 in the experimental group).

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[6] The role of sender was always played by a participant of either low or high competence. The receiver was always a person of average communicational competence. In this way a homogeneous (level of competence) group of receivers was procured, which made comparison of results in pairs possible

Results and discussion

Effectiveness and creating implementation intention

The results of the single factor variance analysis of dependent variables comprising the level of effectiveness indicated that the factor of creating implementation intention shows essential differences among subjects only in the level of performance of the task. It means that manipulative factor, i.e. specifying intention in concrete communicational situation, designing of a plan and choosing adequate strategy increased the level of effectiveness only in reference to objective evaluation of the level of task performance. The difference in time of performance and satisfaction with the course of communication process between the control and experimental group proved to be statistically insignificant.

The following is the chart presenting the level of performance for both groups with age and level of communicational competence of subjects (Figure 4).

The difference in the level of task performance between control group and experimental group proved significant on the level of p<0.016. Experimental manipulation caused increase in the level of task performance, which means that creating of implementation intention by subjects had an essential impact on the increase of the level of performance of the task. It is interesting that the highest increase was observed among junior students with low communicational competence. In this group the difference was statistically significant on the level of p<0.006. Junior students with low communicational competence in the experi-

Figure 4. Estimated means for the level of task performance in control and experimental groups
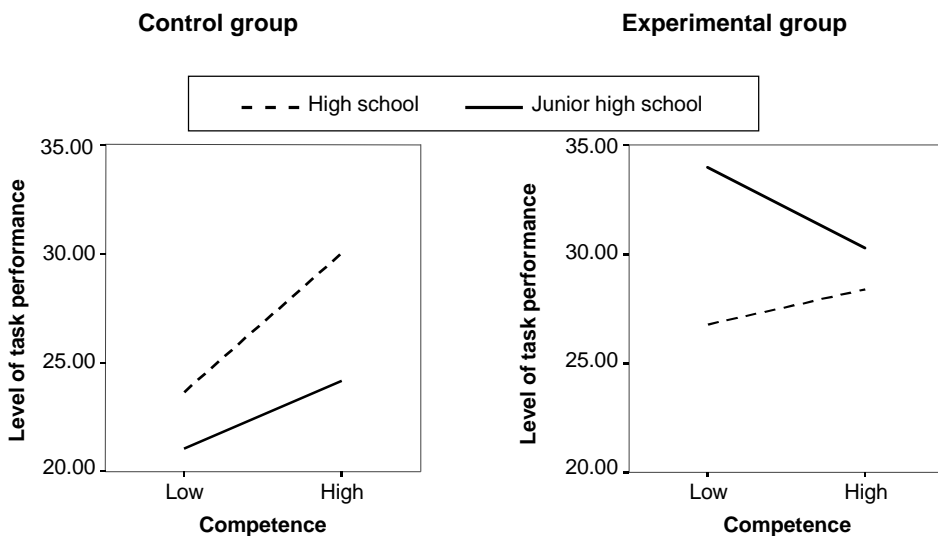
Table 1. Subjective sense of realization of intention and communication effectiveness (r-Pearson's correlation coefficient)

		SSRI	SSRI information	SSRI coordination	SSRI relations & emotions
Time	r	-0.126	-0.040	-0.040	-0.004
	p	0.090	0.594	0.585	0.955
Level	r	**0.170**(*)	0.**160**(*)	**0.161**(*)	0.114
	p	0.021	0.030	0.029	0.124
Satisfaction	r	**0.207**(**)	**0.194**(**)	**0.197**(**)	**0.165**(*)
	p	0.005	0.008	0.007	0.025

** Correlation is significant on the level of 0.01
* Correlation is significant on the level of 0.05

mental group achieved the highest level of task performance of all groups – higher even than the senior students with high competence. Therefore, junior students turned out to be susceptible to the applied type of manipulation. This result can be interpreted in the context of current communicational competence: people with low competence tend to use tips from the outside (suggestion of creating implementation intention) and incorporate them into their plan of action. If, however, the decisive factor in susceptibility to manipulation was only the level of communicational competence, then senior students with low competence should be just as susceptible, but no major difference was observed in this group. Moreover, it was observed that the level of task performance among senior students with high competence decreased slightly under the influence of manipulation while it increased among junior students with high competence. So the decisive factor in susceptibility to manipulation is also age of participants. This may be evidence of a developmental process consisting in transformation of configuration of factors determining communicational effectiveness in junior and senior high school students. Juniors took advantage of the proposed procedure of implementation to a much higher degree, which enhanced their results. Such a concurrence was not found among seniors – they could already have internalized the procedure of creating implementation intention (or are undergoing that process) and so do not make use of external tips. The proof of this could be the fact of an observed decrease in task performance among seniors with high competence. This result might have been brought about by the fact that external information (necessity to create imposed implementation) disturbed the natural (already internalized or being internalized) process of creation of an implementation intention. Nevertheless, such an interpretation is only hypothetical – the inference is based on observation of emerging tendencies, not all of which crossed the threshold of statistical significance. This area requires further study to verify these interpretations.

Table 2. Subjective sense of realization of intention and communication effectiveness (r-Pearson's correlation coefficient) for high school and junior high school students

	Time	**Level**	**Satisfaction**
HIGH SCHOOL			
Pearson's correlation	**-0.312(**)**	**0.266(*)**	**0.286(**)**
Significance (two-sided)	0.003	0.013	0.008
JUNIOR HIGH SCHOOL			
Pearson's correlation	0.075	0.075	0.126
Significance (two-sided)	0.467	0.465	0.217

** Correlation is significant on the level of 0.01 (two-sided)

* Correlation is significant on the level of 0.05 (two-sided)

Effectiveness and Subjective Level of Realization of Intention

The independent variable Subjective Sense of Realization of Intention (SSRI) refers to the way in which subjects evaluated their ability to realize intention in different communication situations. The yardstick of this evaluation was the result achieved by subjects in the Questionnaire of Subjective Sense of Realization of Intention (QSSRI). The questionnaire contained items grouped in three areas: (1) exchange of information, (2) coordination of action, and (3) exchange of emotional and relational content. The results for sub-scales are presented in Table 1.

The obtained results point to an important relation between SSRI and the level of task performance and satisfaction. Although the correlations are not high, they support adopting the hypothesis that self-evaluation by subjects of their capacity to realize intentions was related to the level of task performance and feeling of satisfaction. The level of task performance was linked with the overall result achieved in QSSRI. The correlation was determined by sub-scales: "information exchange" and "coordination of action". Satisfaction had statistically a significant relation with the overall result achieved in QSSRI as well as with each sub-scale.

Detailed analysis of results regarding the depth of relationship between SSRI and effectiveness of communication revealed interesting differences between the two age groups (high school vs. junior high school). See Table 2.

The above data shows that there is a statistically significant relationship between SSRI and effectiveness of communication only in the senior students' group. It means that senior students are able to estimate their own capacity for realization of intention in various communicational situations in such a manner that their evaluation has an actual relation with the level of effectiveness in a concrete act of communication.

We have not observed such a relationship in the junior students' group, which is just as interesting as the correlations in the other group. Junior students' evalu-

ation in QSSRI did not correlate with the level of effectiveness of communication during performance of the experimental task. These results indicate a developmental regularity consisting in a difference between junior and senior students in adequacy of subjective evaluation of the level of realization of intention with reference to actual results achieved in the process of communication. The difference is that senior students' evaluation of the level of realization of intention is more accurate and adequate than that of junior students. It may indicate development of a meta-communicational function occurring at the time of transition from junior to senior high school. Senior students, as compared to junior students, evidenced a deeper insight into their own communication processes and greater accuracy in evaluating their own ability to realize intention.

Conclusion

The starting point for our discussion was adopting a model of interpersonal communication in a time frame allowing communication to be treated as a process commencing with an impulse to act, establishing a goal and intention, through their realization to evaluation of the whole process of communication, adopted strategies as well as results, and consequences the process led to. This model is not solely focused on actual communication, where exchange of content and intention takes place, but it allows reflection on processes preceding and following communication itself.

In order to study the relationships between the above mentioned variables, it was necessary to operationalize the term intention and to work out tools for measuring that variable. The adopted manner of analysis is based on the notion that realization of intention is a dynamic process with functional stages. We have attempted operationalization of a few aspects of the process of realization of intention and to study their influence on the level of communication effectiveness. We focused on two stages, not directly connected with actual communication, i.e. pre-communication and post-communication. We believe that the processes and mechanisms involved in these stages can have fundamental significance for effectiveness. Our results confirm the adopted assumptions. The level of task performance may depend on the procedure of implementation connected with the pre-communication stage. The post-communication phase and the evaluation of the level of realization of intention can be linked with the level of task performance, the duration of task performance, and the declared satisfaction with communication. The results of our research can be treated as a starting point for further study of the influence of stages not directly connected with actual communication on the level of effectiveness of communication.

The detailed results obtained in both junior and senior high school may provoke reflection on the educational needs for these age groups. Learning intention implementation procedure turned out to be an important factor allowing an in-

crease in students' level of communicational effectiveness. Especially students with low communicational competence could benefit from practice in deliberating on and making their intentions concrete (within the frame of implementation procedure). Perhaps such training will allow students more precise programming of their utterances and as a result achieve higher marks and a higher level of satisfaction from tasks based on communication.

The obtained results also point out differences between junior and senior high school students in the level of awareness of their own processes of communication and the consequences of their actions in the communicative sphere as well as their susceptibility to a suggested procedure of implementation. It indicates a need to take into consideration the actual level of meta-communicational awareness in schooling and developing students' communicative capabilities while differentiating strategy for different age groups. In the case of junior high school students, an external suggestion on the need to create an implementation intention proved to be a beneficial factor, increasing significantly the level of the communicational task performance. For senior high school students, such manipulation turned out to be less significant and, in the case of highly competent students, even detrimental, interfering with the course of the communication process. Therefore, junior students should be taught ways of implementing, encouraged to use external tips and ready-made plans as well as external implementation models. Senior students should be encouraged to rely on their own ways of implementing intention in the communication process and to broaden awareness of their meta-communicational processes – otherwise teachers' assistance in implementation may hinder rather than help students' attempts with constructing accurate utterances.

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