

**TEMPORAL DIALOGUES AND THEIR INFLUENCE
ON AFFECTIVE STATES AND THE MEANING OF LIFE**

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ABSTRACT: The study contributes to the understanding of temporal dialogical activity of the self. The four separate studies conducted on student samples were focused on the immediate and direct influence of the confrontation of time-related I-positions (voices) on affective states and the meaning of life. The affective states and the meaning of life as a state were measured twice just before and after the temporal dialogues between past or/and future and the present I-positions. The State Personality Inventory (SPI, by Spielberger & Reheiser), and the scales measuring the meaning of life (by Oleś) were used. In general, the temporal dialogues tended to increase the meaning of life as a state, and the extent of the influence was affected by an ability to integrate the voices (points of view) representing different temporal positions of the self. Moreover, temporal dialogues tended to increase curiosity and reduce negative affects like depression or anxiety (except the cases in which an initial level of the meaning of life was lowered). The confrontation of inner voices representing future and present I-positions had positive influence on well-being and the meaning of life as a state, while an analogous phenomenon concerning the confrontation of past and present I-positions was not so salient. In the fifth study we checked distant effect of a whole life story construction in adolescents. The meaning of life as a trait (scale by Oleś) and identity dimensions (Ego Identity Process Questionnaire – EIPQ - by Balistreri, Busch-Rossnagel, & Geisinger) were measured just before and one week after life story construction. According to the results, constructing a prospective life story by adolescents enhanced their meaning of life, and constructing an imagined retrospective life story from the perspective *I as an old person*, stimulated exploration of one's own identity. The results are discussed with reference to the theory of the dialogical self, psychology of time and life-span developmental perspective.

Dialogicality, understood as the inner activity of a person, is one of the most general human features (Oleś, 2009), which originates from: (1) social interactions influencing and stimulating human development and functioning, (2) the use of symbols and the ability to apply meaning, and (3) the ability to represent the external world with all its complexity in one's own mind (see: Asmolov & Asmolov, 2009; Hermans, 1996; Hermans & Kempen, 1993; Cooper, 2003; Markova, 2003). As Ivana Markova (2003) argues:

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Why do we think and speak in antinomies? Because, I hypothesize, thinking and speaking in antinomies is an expression of dialogicality of the human mind. Dialogicality is the capacity of the Ego to conceive and comprehend the world in terms of the Alter, and to create social realities in terms of the Alter (p. 203).

Confronting different and often contradictory points of view, the person uses different I-positions created around specific life experiences, e.g. child, mother, successful, abused, and so on. Each I-position represents a specific evaluative perspective and is able to create a story about this, and even other domains of personal experiences. In addition, each I-position has a capacity to exchange ideas with the other positions, to agree and disagree, or to negotiate common meanings. These numerous and different I-positions or internal voices, when put together, form the dialogical or multivoiced self. “The dialogical self can be described in terms of a dynamic multiplicity of voiced positions in the landscape of the mind, intertwined as this mind is with the minds of other people” (Hermans, 2003, p. 90).

A structured unit of internal activity is called an internal dialogue, that is a dialogical relationship between two I-positions. This original notion developed by Hubert Hermans (Hermans, 1996, 2002; Hermans, Kempen, & Van Loon, 1992), refers to Michail Bakhtin’s idea of a polyphonic novel. Sokolova and Burlakova (2009) define inner dialogue in the following way: “We define inner dialogue as inner communication between Self and Other, often internalized and objectified in verbal, formally monologic utterances.” (2009, p. 414). However, inner dialogue is not limited to simulations of a social interaction. There are at least three basic forms of internal dialogical activity: (1) a changing of point of view that is, e.g. creating and confronting visions of a possible world, and ‘playing on meanings’, (2) imagined dialogues between parts of the self – identity dialogues (e.g. ‘good self’ vs. ‘bad self’), (3) internal monologues to, and internal dialogues with imagined figures, (4) simulation of social relationships (Puchalska-Wasył, Chmielnicka-Kuter, & Oleś, 2008).

Considering the notion of an intentional arc by Merleau-Ponty (see Hermans, 1976; 1996), the person is not only able to take at least two different I-positions rooted in the present, but he or she is also able to take at least two different temporal I-positions, e.g. from the past and/or future (e.g. I as a young person and I as an old person). Such temporal voices may extend a personal valuation perspective introducing new points of view, which are not engaged in the present.

“For example, I can imaginatively move to a future point in time and then speak to myself about the sense of what I am doing now in my present situation. This position, at some point in the future, may be very helpful to evaluate my present activities from a long-term perspective. The result may be

that I disagree with my present self as blinding itself from more essential things” (Hermans, 1996, p. 33).

Taking a starting point in the assumption about personal ability to establish imagined inner dialogues between temporal I-positions, we focus our considerations on the psychological functions of such inner dialogues (Oleś & Sobol-Kwapinska, in print). In this article, we show few possibilities of exploration of internal dialogues when considering the psychological effects of activating temporal I-positions (past, present, and future) and temporal dialogues. Preliminary data suggests an increase in the meaning of life, following a temporal dialogue (Oleś, 2005).

Study 1. Temporal Dialogues: Past versus Present

The goal of this study was to check the possible influence of a temporal dialogue between past and present I-positions on affective state and the meaning of life as a state of the persons under investigation. The participants were asked to choose an important moment in their past (e.g. connected with identity formation), to try to go back to it and to recall it with all necessary details (e.g. emotional climate, socio-psychological context), and to formulate from this past I-position a message or expression of something important addressed to their present self. They then tried to answer for this voice from the past using their usual present I-position. The participants were asked to make at least one round (expression and answer), but they were free to make two or three such rounds if they liked (Krason, 2007).

Before and after such a dialog, they answered on two scales: a 30-item scale measuring the meaning of life, by Oleś, and the State Personality Inventory (SPI), by Spielberger and Reheiser (2003, 2009).

The scale measuring the meaning of life was prepared on the basis of the content of the Purpose in Life Test by Crumbaugh and Maholick (1981). The items are sentences, and a subject assesses the level of assertion using a 5-point scale (from 1 - I definitely do not agree, to 5 – I definitely agree). The total result is a sum of raw scores from the items, so it ranges from 30 to 150. Internal consistency of the Cronbach α scale is 0.95.

The SPI is 40-item inventory measuring four emotional states: anxiety, anger, depression and curiosity (10 items per each). The answers are registered on a four-points scale pertaining to the intensity of currently experienced affect. The Polish version of the method was prepared by K. Wrześniewski and P. Oleś. Internal consistency of the scales, Cronbach’s α are respectively: 0.75, 0.68, 0.85, 0.75.

The participants were students ($N = 30$; 22F, 8M), mean age, $M = 22.7$; $SD = 1.42$.

The results show only one significant difference that is an increase in a state of curiosity, which could mean short time of interest in such exploration of the personal past (see Table 1).

Table 1. Comparison of the Level of Meaning of Life and Affective States before and after Inner Temporal Dialogue: Past vs. Present

Variable	Before		After		Differences	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i> (29)	<i>p</i> <
Meaning of life	101.8	10.6	104.5	11.7	-1.93	.07
Anxiety	16.9	6.0	16.4	6.4	0.54	-
Curiosity	31.9	4.0	33.3	3.4	-2.25	.05
Anger	12.0	4.9	11.5	3.7	0.79	-
Depression	16.1	4.7	15.1	5.1	1.54	-

The conclusion is that confrontation of the past and present points of view has unspecific influence on the affective state of a person. Note that the participants were asked to choose past I-positions and they were free to formulate any message from the past (including ‘keep smiling’, or ‘life is beautiful’). They were not disposed to confront any personal problem or to look for a piece of wisdom hidden in their past experience.

Study 2. Temporal Dialogues: Future versus Present

This second study is quite parallel to the first one. The difference concerns the activation of a future (instead of past) temporal I-position. Thus the goal of this study was to check the possible influence of a temporal dialogue between future and present I-positions on the affective state and the meaning of life as a state of the participants.

The procedure was very similar; however, using imagination rather than memory was important. In this second study, the participants were asked to choose a particularly important moment in their imagined or expected future (e.g. the beginning of their first job, marriage, being in midlife), to try to imagine possible life circumstances carefully, with all necessary details (e.g. emotional climate, socio-psychological context), and to formulate from this future I-position a message or expression of something important addressed to their present self. Then they just had to

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try to answer to this voice from the future. The participants were asked to make at least one round (expression and answer), but they were free to make two or three such rounds if they liked (Ryczan, 2007). Also, before and after such a dialog, they answered to the same two scales as in the previous study: a 30-item scale measuring the meaning of life as a state and the State Personality Inventory (SPI), by Spielberger and Reheiser (2003, 2009).

The participants were students ($N = 30$; 21F, 9M), mean age $M = 22.6$; $SD = 2.09$.

As the results shown in Table 2 indicate, in this study one can find significant changes in all assessed states, both affective and of the meaning of life. Thus there is a significant increase in the meaning of life and curiosity as states, and a decrease in anxiety, depression and anger.

Table 2. Comparison of the Level of Meaning of Life and Affective States before and after Inner Temporal Dialogue: Future vs. Present

Variable	Before		After		Differences	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i> (29)	<i>p</i> <
Meaning of life	93.4	8.56	103.0	13.3	-19.8	.001
Anxiety	19.8	5.8	17.0	5.1	10.4	.005
Curiosity	29.7	5.9	32.4	5.4	-18.7	.001
Anger	14.1	4.8	13.2	3.4	15.5	.001
Depression	19.5	6.3	16.7	5.4	14.1	.001

Confrontation with the future self opens or extends temporal perspectives, influencing affective states towards more positive affects. At the same time, it reduces the possible impact of present life events, problems and concerns on the affective state. However, a change in the meaning of life suggests reflection on life and probably taking new points of reference in assessing current life issues. Why does future vs. present temporal dialogue have an effect on the affective states and the meaning of life as a state, while the past vs. present temporal dialogue does not have a similar impact? Two reasons are probably responsible for these contrasting results. On the one hand, turning to the past can recall positive as well as negative experiences; on the other hand, people's attitudes towards the future are optimistic, so dialogical confrontation with

future I-positions may refer to a possible self which is most often desired, rather than undesired (Markus & Nurius, 1986). However, this explanation does not especially refer to temporal dialogue. Also, future I-positions can, of course, warn or reprimand the present self. Yet, as we expect, most often (excluding depressive cases), it shows possibilities, hopes and a successful ending. This is the main reason for the observed and very salient change.

Study 3. Temporal Dialogues: Past versus Present - Research with Changing Positions

In this study, we checked more complex temporal dialogical relationships, activating in one study all three time-related I-positions and using spatial relationships aiming at reinforcement of changing time-related positions of the self. This third study was conducted by M. Sibinska, who used three chairs symbolizing the past, present and future. In this way, she tried to intensify the experience of (spatial and temporal) movement towards the past or future.

The procedure was very similar, with one small but significant difference: the participant had to sit in a chair, which meant the past, and to choose an important moment in their past (e.g. connected with identity formation), to try to go back to it and remember it with all necessary details (e.g. emotional climate, socio-psychological context), and to formulate from this past I-position a message or expression of something important addressed to their present self. Then they repeated the procedure, changing a chair and formulating an important message from the future. At the end of the first round, they had to sit in the middle chair, which signified the present, and tried to answer for these voices from the past and future. The participants were allowed to make more than one round if they liked (expressions and answer), but not more than three rounds (sitting in the appropriate chair when changing the temporal I-position). Before and after such a dialog, they answered the same two scales: a 30-item scale measuring the meaning of life as a state, and the State Personality Inventory (SPI) by Spielberger and Reheiser (2003).

The participants were students $N = 30$ (22F, 8 M), aged 19-26 years, mean age $M = 22.13$, $SD = 1.98$.

The results of a chair version of the experiment are shown in Table 3. Three significant differences reveal an increase in the meaning of life and anger, and a decrease in anxiety.

There is an influence of past vs. present temporal dialogue – using chairs for reinforcement of temporal I-positions – on the meaning of life (increase) as in the first study, and on anxiety (decrease), and this result is different from the first study. An unexpected increase of anger is difficult to explain. It could mean a kind of frustration

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Table 3. Comparison of the Level of Meaning of Life and Affective States before and after Inner Temporal Dialogue

Variable	Before		After		Differences	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i> (29)	<i>p</i> <
Meaning of life	93.4	8.56	103.0	7.79	-8.02	.001
Anxiety	16.0	2.6	14.1	2.3	4.28	.001
Curiosity	32.1	4.6	31.6	4.9	1.00	-
Anger	14.0	2.7	15.4	2.9	-2.82	.01
Depression	13.9	2.4	13.4	2.8	1.08	-

when the participants were asked to fill in the questionnaires (the second time they were the same) after a very exciting exercise as they estimated the ‘chair position’ experiment. The reduction of anxiety, which was not very high at the beginning, may indicate that the exchange of ideas between the past and present self, with a clear change of positions quiets or tones down the anxiety present in everyday life.

Study 4. Temporal Dialogues between the Past, Present and Future - Research with Changing Positions

The fourth study was conducted in the same way as the previous one. The replication aimed at closer exploration of conditions implying affective change and change in the meaning of life. There were two research questions:

(1) Does confrontation of the past, future and actual I-positions relate to affective states and/or the meaning of life?

(2) And if so, under what conditions do temporal dialogues influence affective traits and/or the meaning of life in one way or another?

The hypothesis related to the first question was: (H1) Temporal dialogues between past, present and future self cause an increase in curiosity and the meaning of life as states, and a decrease of anxiety, depression and anger as affective states. The rationale under it is that confrontation of different time perspectives helps to objectify criteria of life, it concerns evaluation and this can reveal more positive affective states, as well as an assessment of life as more meaningful. Regardless of this main line of arguing, in the previous studies we discovered that temporal dialogues in most young people produce an increase in the meaning of life, however in the minority of

participants – a decrease in the meaning of life (Oleś, 2005). The question is, why? Thus, referring to this problem and the second question, we postulate the second hypothesis (H2): Temporal dialogues tend to increase positive affective states and/or the meaning of life when the person is able to integrate two or more voices (points of view) introduced by different temporal positions of the self. Also, temporal dialogues tend to increase negative affective states and/or decrease the meaning of life when the person is not able to integrate two or more voices (points of view) introduced by different temporal positions of the self.

As in the previous study, we used the ‘chair instruction for a temporal dialogue’, which is a method of activating the temporal voices. The method can be briefly described as an attempt to: imagine oneself in a specific time in the past and/or future, and to formulate a message-speech: (1) *I in the past* – “What would my ‘I’ from the past say to me?” (2) *I in the future* – “What would my ‘I’ from the future say about my present life?”, and (3) *Actual I* – “What is my answer to those voices?” The instruction for temporal voice activation was such: “There are three chairs in front of you. Each of them represents a certain moment in your life. The chair in the middle represents your current self or life situation, which we will call *the actual I*; the chair on your left represents any chosen, distant moment in your past and it will be called *I in the past*, and the chair on your right represents any chosen moment in your distant future which we will call *I in the future*. Please take a seat representing the past...” (and next as in the previous studies).

One element was added at the end of an investigation. The participants answered a question on the level concerning meta-reflection on the effects of what they have done just before: What is the result of confronting those voices? Can they be somehow combined into one consistent message or one sentence? In this way we checked if the participants were able to integrate the voices emerging from different temporal I-positions.

The participants were students, $N = 100$ (60 women and 40 men), mean age $M = 22.96$, $SD = 2.38$. The results do not replicate previous results very well (see table 4).

The first hypothesis is partly verified. Temporal dialogues between past, present and future self caused, on the one hand, an increase in the meaning of life and curiosity and a decrease in anger, and on the other hand – quite unexpectedly – an increase in anxiety as a state. An increase in the meaning of life is clear, this result suggests ones more high potential influence of temporal dialogue for the meaning of life. An increase in curiosity as an affective state is also replicated from the first and second study, but not from the third, which – interestingly enough – was done according to exactly the same procedure. A decrease in anger is also understandable, taking into account the

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Table 4. Comparison of the Level of Meaning of Life and Affective States before and after Inner Temporal Dialogue

Variable	Before		After		Differences	
	M	SD	M	SD	t(99)	p <
Meaning of life	78.01	11.6	101.36	12.9	-17.95	.001
Anxiety	15.33	4.42	16.36	4.49	-2.88	.005
Curiosity	28.63	6.53	29.73	6.15	-2.84	.005
Anger	16.00	3.97	14.64	3.81	4.51	.001
Depression	14.73	4.01	14.45	3.93	0.83	n.s.

positive effect of temporal dialogue on affective state. However, in this light, increase in anxiety is intriguing. This result seems specific to the group. The participants originated from different social environments than in the previous study. And a specific result in this group is a relatively low initial mean score of the meaning of life (more than one standard deviation lower than in the first, second and third study). It suggests some level of existential frustration, and in such a case, temporal dialogue can result in a higher, not lower level of anxiety, because it regards difficult personal, unresolved problems.

Referring to the second hypothesis, a qualitative analysis of the dialogue effects was conducted. The question under consideration was whether a person was able to integrate the voices representing different temporal perspectives or not. The indicator for temporal voice integration was a formulation of a message from the present position, expressing a combination of the voices or showing a new quality derived from confrontation of the past, present and future self. The qualitative evaluation with the judges' method was used for that aim. According to consistent assessment of five independent judges, more than two-thirds of the participants were able to integrate the voices, and only less than one third of the participants did not reach such integration. Thus, we compared two distinguished groups, one called "Integration Group" and the second "No Integration Group" (see Table 5).

In both groups, we found a significant increase in the meaning of life, which does not mean that the results in these groups are similar. First, and most importantly: the comparison of the extent of change in the meaning of life ('after' result – 'before' result) reveals a great difference between the groups. Increase is much higher in the

Table 5. Comparison of the Level of Meaning of Life before and after Inner Temporal Dialogue

Variable	Before		After		Differences	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i> (99)	<i>p</i> <
Integration Group, <i>N</i> =70	75.66	10.64	105.49	11.17	-27.84	0.001
No Integration Group, <i>N</i> =30	84.17	11.84	90.53	12.10	-7.48	0.001

group called ‘integration’ – the participants who were able to integrate the voices articulated from different temporal perspectives ($F(1.98) = 187.9, p < 0.001, \eta^2 = 0.66$). This, in turn, supports the second hypothesis. Increase in the meaning of life in the ‘No integration group’ – the participants who were not able to integrate the voices articulated from different temporal perspectives – is also significant, contrary to our reasoning. Moreover, the comparison of the changes in affective states like anxiety, depression, anger, and curiosity, does not reveal any significant change (respectively: $F(1.98) = 2.59, n.s.$; $F(1.98) = 1.11, n.s.$; $F(1.98) = 1.31, n.s.$; $F(1.98) = 2.18, n.s.$), also contrary to the hypothesis. The ability to integrate different temporal voices causes greater increase in the meaning of life, and does not influence affective states. A rare phenomenon of the decrease in the meaning of life after temporal dialogue needs another explanation. At the moment, one can postulate a serious personal problem, like a deep sense of lack of fulfillment, activated by a temporal dialogue; the problem implies negative influence on the meaning of life.

The second difference between the two groups concerns not the extent of change, but an initial and final level of the meaning of life. An initial level of the meaning of life was almost one standard deviation lower in the ‘integration group’, and the final level was over one standard deviation higher than in the opposite group. Students who need an internal integration possible via internal dialogue, and who are able to connect and unite different temporal voices, probably find such a dialogue as an occasion to answer important existential dilemmas. They take clear profits, clearly benefiting from temporal internal dialogue. Students who are not able to unite inner voices, or who do not have a serious need to do so, have not specially lowered their initial meaning of life, and do not benefit significantly from temporal dialogue.

Interpreting this result from the dialogical perspective, one can indicate a lack of or limited flexibility, as a potential reason of both inability to integrate inner voices, and lowered readiness for change in the meaning of life. Considering the result from another

perspective: a tendency to influence of a temporal dialogue on the meaning of life originates from existential frustration.

Study 5. Self-Narratives and the Meaning of Life and Identity Dimensions

According to McAdams (1996), making self-narratives is crucial for creating personal identity. The emphasis on organization of life experiences in time and the generating of narrative structure which integrates the personal past, present, and future, is the essence of this approach. Therefore, story-telling about the self expresses narrative identity. Assuming that the self is dialogical or polyphonic, and providing that there are many different I-positions, we can assume that each I-position is able to tell their own story. The same concerns temporal I-positions.

This project is focused on the potential influence of creating a life history from two different temporal perspectives, namely, the present – prospective life story, and the future – imagined retrospective life story, on identity dimensions and the meaning of life. Knowing the integrative power of self-narratives (McAdams, 1993; Ramírez-Esparza & Pennebaker, 2006), we expected significant changes in identity dimensions and the meaning of life, following the creation of life history. In particular, the construction of a possible history of life from an imagined perspective, *I as an old person*, will promote exploration of one's own identity and/or commitment to chosen goals and tasks. Also, exploration of future possibilities has to do is connected with choice of life goals which are on line with personal needs and aspirations, so it should influence exploration as an identity dimension. We also expected influence on the meaning of life for the broadening of temporal perspective, which allows one to find basic values and other anchors for a personal meaning of life. The exploration of the imagined past has more to do with life review and is based on the realization of choices and values – *what has been important in the past?* Therefore, it should enhance the commitment dimension of identity, as well as the meaning of life.

The procedure was as follows. The participants, adolescents aged from 15 to 19 years ($M = 16.57$, $SD = 0.86$), were randomly divided into three groups. Some of them, 'old persons', were asked: "Please try to imagine that you are old, at the end of your life, you have lived for many years and you have had many experiences. When you are ready, please write down a comprehensive story of your life. You have about a quarter hour to do this." Another group, 'young persons', were asked: "You are young and you have a lifetime before you; however, you can imagine your future. Please try to do that and write down a comprehensive story of your whole life. You have about a quarter hour to do this." Also, a control group, 'Mars travelers', were asked: "Please try to imagine that you have traveled to Mars. It has taken a few years, and you have experienced many events. Please try to write down a comprehensive story of your travels. You have about a quarter hour to do this." Directly prior to story construction and a week after it, the participants were asked to fill in two measures: the Ego Identity

Process Questionnaire (EIPQ) by Balistreri, Busch-Rossnagel, and Geisinger (1995), and a short, 10-item scale for assessing the meaning of life as a trait.

The EIPQ is a psychological tool for measuring two dimensions of identity: Exploration and Commitment. The scale for assessment of the meaning of life is a shortened version of a parallel for an aforementioned 30-item scale measuring the meaning of life as a state, prepared by Oleś.

The results are shown in Table 6. There are only two significant differences; however, note that the second investigation was conducted one week after constructing the story. The first difference concerns an increase in the exploration of identity in the group of participants who formulated a life story from an imagined future perspective (*I as an old person*). Another significant result is an increase in the meaning of life of the group of participants who formulated a whole life story from their own perspective (*I as a young person*). No significant differences were observed in any control group.

Table 6. Identity Dimensions and Meaning of Life in Three Groups Before and After Construction of Life Story

Variable	Group Investigation	“Old person” (<i>N</i> = 82)		“Young person” (<i>N</i> = 55)		Controls: “Mars” (<i>N</i> = 51)	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Exploration	1	56.66	7.58	55.60	7.54	54.84	6.98
	2	57.99	7.37	55.29	7.42	54.78	7.71
	<i>t</i>	-2.15*		0.34		0.08	
Commitment	1	62.13	9.01	63.73	7.40	63.71	7.09
	2	62.13	9.42	63.47	7.41	62.92	7.49
	<i>t</i>	0.00		0.31		1.05	
Meaning of life	1	27.01	4.17	25.47	3.68	25.08	3.15
	2	27.15	4.39	26.35	3.36	25.14	3.04
	<i>t</i>	-0.49		-2.13*		-0.19	

Note: * - $p < 0.05$

The research shows that some changes can be initiated by narrative thinking activation, and that these changes depend on the temporal perspective. It was revealed that retelling a life story from the imagined position *I as an old person* intensifies identity exploration, whereas constructing one’s life story from the current position *I as a young person* reinforces the meaning of life (as a trait).

Therefore, the results suggest higher exploration inspired by the creation of a life story from an imagined future perspective. Why does an imagined retrospective perspective activate exploration of possible identity? One possible answer is that the creation or activation of a very special temporal I-position, namely, *I as an old person – at the end of my life* – confronts a participant with ultimate life values and an imagined life review, and reveals a kind of pressure to evaluate personal concerns, gains and losses from the point of view of their impact on one's total assessment of life. The challenge to prepare a life history from the distant future can inspire young people to focus on searching for important life values, and to confront two different I-positions: one created during an experiment, that is the future self, and the actual self. The same things may have different meaning from each of them. What seems valuable or nice from the actual I-position can be estimated as meaningless from the future I-position. What seems valuable from the future can be boring, too difficult, or quite uninteresting from the actual I-position. So we postulate that activation of this particular future I-position – *I as an old person* – causes some confusion which results in more or less intensive searching for universal meanings – which has value for the present and for the future. This is not the case in the situation where a person projects his or her life from a normal I-position ('Young person group'). In creating a prospective story, they were closer to planning their life than to assessing it as if they were at the end of their days. The second assessment of identity dimensions and the meaning of life was conducted a week after the formulation of a life story – enough time to reflect upon important life issues, provided that the person was ready to do so.

In the 'young person' group, which formulated a prospective life story, the significant effect concerns the meaning of life, not exploration or commitment as we expected. Creation of a prospective story does not touch upon identity but it influences the meaning of life. Most young people (except for a few cases) formulated stories about their happiness, successful fulfillment of personal goals, and joyful relationships. In a great majority of cases, they expressed an optimistic attitude towards the future, which could strengthen their actual meaning of life. Life, as an open and hopeful possibility, helps to cope with current concerns and treat them as limited to the present time, place and situation.

Retelling one's own history enables the person to distance themselves from the present, and take on new interpretations of certain life events. It is particularly noticeable when the individual creates a life story from a distant moment in the future. From the dialogical point of view, we can say that when people activate an I-position which forces them to see their whole life and possibly review it, then they can challenge the current lifestyle and outlook on the world. At the same time, the exploration processes are intensified and can provide for identity changes.

The aforementioned result is equally interesting. The meaning of life seems to involve identity. McAdams defines identity as "an internalized narrative integration of

past, present, and anticipated future which provides lives with a sense of unity and purpose” (1989, p. 161). It is clear that the sense of unity and purpose are closely connected with the meaning of life. Therefore, if narrative identity provides the person with a sense of unity and purpose, we can understand why among participants who constructed a life story, the meaning of life increased. However, it is worth noting that the relation between constructing a self-narrative and an increase in the meaning of life is observed only in the case when a life story was retold from the position *I as a young person*. Perhaps the explanation for this result should be found in the form of an activated temporal I-position, and in the manner of thinking accompanied by the taken perspective. If the life story is constructed from a current point of view, it is based chiefly on what had already happened in life. In such case, thinking is more realistic and does not allow for much imagination. The meaning of life may increase, because the individual makes a reflection about the present and the past that leads to the present life situation. It is possible to make sense out of some actual experiences, because they have truly gone through.

General Discussion

Generally speaking, our research was focused on the potential power of self-narrative and dialogical activity. Creation or (re)construction of one’s own story implies processes of applying meaning, selection and evaluation of life events and personal experiences, and the integration of disperse plots into one coherent and narratively structured whole (Hermans & Kempen, 1993; McAdams, 1993). Usual self-narrative activity aims at (re)construction of the past, explanation and justification of the present, with some references towards the future. According to our results (study 5), taking a broad temporal perspective and constructing a prospective life story, on a stage when people usually plan their lives (Heckhausen, 1999; Hermans & Hermans-Jansen, 1995; Nurmi, 2004), gives an important impulse to enhance the meaning of life. Moreover, the challenge to construct an imagined life story from the retrospective perspective *I as an old person*, implying a change of time perspective, stimulates exploration of one’s own identity in young people. Both results indicate that self-narratives, in life story construction, have personal development promotion power, and it can be used in counseling and/or psychotherapy for young people who exhibit difficulties in defining their meaning of life and identity. We will return to this topic further on.

Both results also suggest the meaningful influence of future time perspective activation on the present condition of the person. The future allows for relieving oneself from limitations of the past and pressures of the present, and to project one’s own trajectory of life into the imagined and challenging future (Lens, 2006; Zaleski, Cycon, & Kurc, 2001). Similarly, as with goals (Bandura, 2006), a future life story opens the person up to possibilities and chances. It challenges intentionality and confronts the person with a broad horizon of personal choices perceived as free, or at least partly free.

Therefore, taking a future I-position stimulates the person in changing their point of view and in considering life issues in a broader and developmental perspective.

This well-being promoting aspect of the future was shown in studies 1 – 4, which were focused on the immediate and direct influence of changing temporal perspectives, and the confrontation of time-related I-positions (voices) on affective states and the meaning of life, also as a state. In all these studies, we checked the potential influence of temporal dialogue on affective states and the meaning of life. A general conclusion is as follows. The temporal dialogues tend to increase the meaning of life as a state, and the extent of the influence is affected by personal ability to integrate the voices (points of view), representing different temporal positions of the self. Moreover, temporal dialogues tend to influence affective states, that is, they tend to increase curiosity and reduce negative affects like depression or anxiety (besides the cases when the initial level of the meaning of life is lowered). However, personal ability to integrate different temporal voices does not have an influence on affective states. In general, we found that the confrontation of inner voices representing the future and present has positive influence on well-being and the meaning of life (with a few exceptions). Confrontation of inner voices representing the past and present does not have such a salient effect, but tends to the same direction.

In summary, we basically confronted different I-positions situated in three time dimensions: future, past and present. The present self is often under pressure of immediate needs, everyday concerns, and urgent tasks, the future self is closer to possible self, according to Markus and Nurius (1986), so it is more flexible, more colored by hopes or fears, and more prone to creative power of imagination, while the past self implies memory of important life events and reevaluation of their influence on the present and future. Confronting the past or future causes the present to be viewed from a broader perspective (e.g., teenage values or the sum of life events). Thus present actions, which seem important and urgent (e.g. completing studies, academic-related tasks at the expense of one's social life), when perceived from a broader temporal perspective, may not only lose its importance, but also gain an entirely different value (e.g., it may seem undesirable, as opposed to urgent and important).

As a life story organizes one's tasks and desires, or determines personal goals and defines associated affects, it evokes and influences motivational processes, while the temporal dialogues, initiated among time-related positions, have probably even greater influence on the functioning of the self. The narratives people create reveal their motives and goals, show their hopes and fears, help understand the undertaking of activities, as well as withdrawal from them (Bruner, 1990). By activating the past, future and present self, people clarify goals, values and desires, and in this way influence their meaning of life. Confrontation of the present situation from distant temporal points of view may initiate processes of change (Hermans, 1996). Moreover, such temporal confrontation can stimulate identity formation processes.

The dialogical abilities and functions of the self are used in dialogical therapy. The aim of dialogical therapy is twofold. On the one hand, it aims at expression of diverse internal voices (that is, I-positions), which do not know about or ignore each other; on the other hand, at the promotion of mutual exchange and communication between different parts. As a result, the voices representing different I-positions can communicate and cooperate, seeking agreement on common meanings (Hermans, 2004; Hermans & Hermans-Jansen, 1995).

Psychotherapeutic functions of internal dialogues have been emphasized by researchers taking different perspectives and assumptions (e.g. Dimaggio & Lysaker, in print; Hermans, 2004; Pollard, 2008; Sokolova & Burlakova, 2009; Whelton & Greenberg, 2004). Internal dialogues are used as a usual therapeutic technique in gestalt as well as cognitive therapy (Alford & Beck, 1997). They are also considered important in the existential approach. One of the personal attitudes towards terminal disease is described by an internal dialogue.

An individual who is afflicted with a disease is faced with the task of finding a way to live with it. (...) Disease is a *phenomenon*; the individual has to enter into a dialogue with it. Dialogue entails listening. In this context, dialogue is understood as *internal dialogue*; that is, a conversation the individual is having with themselves. One part of the individual speaks to another part, while the other part does listening; like when you take a stroll in the woods and talk to yourself about how life is going these days (Jacobsen, 2007, pp. 31-32).

Arguing that temporal dialogues have a therapeutic and wisdom-promoting function, we would like to refer to the study by Staudinger and Baltes (1996). In the research on wisdom-related performance, they used an experiment involving inner dialogue as one of the experimental conditions. A difficult life problem was introduced to the participants, and before they responded, they had an opportunity to discuss it with a person in the laboratory, or with a person they usually discuss difficult life problems, or to conduct an inner dialogue about the problem with someone of their choice; or to think about the problem without interaction with any other person. The results showed a significantly higher level of performance (about one standard deviation) in the participants who had the opportunity to discuss the problem with another person, both in real social interaction, as well as in inner dialogue. The authors concluded that adults have a latent potential to use or develop their wisdom. However, from the point of view of the dialogical self, this result proves the power of inner dialogue and shows that inspirations given by this form of dialogicality are similar to dialogue in real social interactions. If a person is able to increase his or her wisdom while conducting inner dialogue with another person, is it the same when he or she establishes inner dialogical exchange between inner self in the future and the actual self? Does it work in a similar way as inner dialogical interaction with another person? According to the theory, temporal dialogues give the opportunity to extend a personal meaning system, and to

explore a zone of nearest development (Oleś & Sobol-Kwapinska, in print). Further studies should also penetrate how dialogicality underlies not only life story and identity construction, but also specific ways of managing life challenges and tasks, coping with stress, or contacting other people.

The studies, as described in this article, introduce a picture of the self as a space of dynamic multiplicity of relatively autonomous I-positions, also temporal, where each of them can be a center of self-narrative (Hermans, 2004; Pollard, 2008). The issue of polyphonic and dialogical self, and the issue of temporality seem to complement each other and show holistic human functioning. The conception of dialogical self reveals a vertical complexity of person, whereas temporality depicts a horizontal one. Particular I-positions can move within the self-system, depending on changes in situation and time. Each of the I-positions has their own story to tell, creating in this way a narrative self, or – as McAdams (1993) proposes – narrative identity. When many I-positions exchange views on the self and the world around, we can tell not only about narrative, but, what more, the dialogical self (Hermans, 2001, 2003).

As far as the problem of self-narrative is connected with narrative identity, it is worth referring to the dialogical account of identity. Mick Cooper (1999), talking about the subjective relation between the individual's unique I-positions, emphasizes that interaction between these I-positions may be associated with identity dialogue. It happens when internal voices express significant I-positions, and in this way the negotiation of identity occurs. In this respect, Hermans' theory of the self is coincident with the quoted view, because it allows for non-continuity, changeability, and reevaluation within the self, involving internal negotiations. This account stands in some contradiction to McAdams' theory of narrative identity, where continuity is one of the basic features of identity as such, and evolutionary changes of points of view are restricted by the scope of self-narrative. However, if we assume that different I-positions, though each of them tells their own life story, the inner voices may enter integration, then retaining of self-continuity is not only possible but even placed on the higher level. Probably the meta-I-position plays a crucial role in these processes.

Anthony Giddens (1991), claims that identity is not a gift that we are given, but something that we incessantly construct by self-reflection. Seeing identity in such light, it seems that the idea of creating identity is common to a narrative and dialogical approach, although the manner of identity-creating appears different. According to Hermans (1996, 2002), identity is negotiated in inner dialogue between I-positions, whereas in McAdams' (1993) view, identity is created by the accumulation of experiences integrated into a coherent self-narrative. Perhaps application of dialogical techniques in the process of generating a coherent and rich identity will turn out to be a bridge between these two notions of personal identity.

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