

Self-attributions of meta-knowledge of the self in terms of Bernard Weiner's theory

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Abstract. On the basis of Bernard Weiner's theory of attribution (2012) and the theory of meta-knowledge of the self (Brycz, 2012), it was assumed that a high level of bias recognition in one's own behaviour facilitates such a course of the attribution process, which favours the recognition of uncontrolled reasons. 245 subjects filled in a short version of a questionnaire exploring the meta-knowledge of the self (MS), and then ascribed reasons (constant vs. changeable, internal vs. external, controllable vs. uncontrollable) of their own bias just recognized. The results confirm that individuals with high MS recognized uncontrolled reasons more eagerly than those with low MS.

Key words: metacognitive self, attribution, biases, controllability.

BERNARD WEINER'S THEORY OF ATTRIBUTION AND PREDICTIONS RELATED TO THE META-KNOWLEDGE OF THE SELF

Causal thinking is the basis of understanding, predicting and controlling our environment (Heider, 1958). Bernard Weiner (e.g. 1985, 2012), indicated the multi-dimensionality of causal thinking, including the process of ascribing causes to behaviours (i.e. the attribution process). He emphasized the role of

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interdependence of such assessment dimensions, as: constancy – inconsistency, internal (e.g. dispositions) – external ones (e.g. environment), controllability – uncontrollability. Covariance means that e.g. internal causes can be controlled (effort) or uncontrolled (current skills). Weiner's ingenious thesis about the commonness and kind of automation (the default option) of human search for the reasons of behaviours has been confirmed by numerous studies in the light of the aforementioned dimensions. For example, the famous experiment conducted by Weiner and Kukla (1970), repeated in many cultural backgrounds, proved that people rate effort put into pursuing an aim higher than skills (success is awarded more, and defeat is punished less).

The controllability dimension plays a crucial role in the consideration of the perceived causality. The conviction of doers that they can control their own deeds is not only the basis of the common attribution process, but also the formation of legal systems. Albert Bandura et al. (2001) wrote: "A man is a causer, subject, agent, when he undertakes actions intentionally. The ability to control nature and the quality of one's own life, is the essence of humanity" (p. 125). Control, put in the centre of our will and consciousness, found so fascinating by psychologist, is an unequivocal phenomenon. For example, ironic effects of mental control discovered by Daniel Wegner (1993, 1994), demonstrate two kinds of control: pre-conscious monitoring control and conscious control, called the operational process. Behaviour is the resultant of both systems and the impact of a situation (e.g. cognitive or emotional overload). Wegner (1994) claims that free will is an illusion and we attribute our own self-agency *post hoc*, which is why there are so many errors in the self-attributions of control. For example, we egocentrically overrate our impact on the course of events which are favourable for us, and deny the ability to control the situation when we have to face a defeat. More accurate management of the perception of one's own control is possible after meta-cognition of self-agency (Achtziger, Martiny, Oettingen, & Gollwitzer, 2012). Meta-knowledge of the self (MS) is further defined as the level of 'insight', being aware (meta-knowledge) of the occurrence in one's own behaviour (the self) of well-known and common psychological rules (e.g. the gambler's fallacy, hindsight bias, etc.) (Brycz, 2012). One could expect that the way we perceive our own biases cooperates with the attribution process in such a way that individuals with great meta-knowledge of the self will recognize more uncontrollable events in their environment and themselves, than those with poor meta-knowledge of the self.

What are the premises of this course of reasoning? Good recognition of one's own bias visualises the man's helplessness against the social environment and group impact (the influence of an authority, conformism when faced with strong group coherence, etc.), and the limitations of one's cognition (confirmation bias, overrating one's impact on the course of events, etc.). What is more, the recent studies (Brycz, Wyszomirska-Góra, Bar-Tal, & Wiśniewski, 2014) have indicated that people have actually accurate assessment of their own tendency to be biased. Being biased, and knowing about that, they draw conclusions about the uncontrollability caused by both the influence of the

environment, and also one's own dispositions. This does not apply to people who deny making mistakes. Therefore individuals with high MS can be expected to be more aware of the uncontrollability of events, than those with low MS.

META-KNOWLEDGE OF THE SELF (MS)

Insight into rules and deviations from rationality in common reasoning (e.g. knowledge that we succumb to an illusion of control) is probably acquired by simultaneous heuristic-systematic (Chen, Shachter, & Chaiken, 1996; Chaiken, Liberman, & Eagly, 1989) processing of information about the self, with parallel tendency to detailed self-reflection (piecemeal processing) and keeping a distance from the self. Briniol and DeMarree (2012) emphasize the role of the so called secondary thoughts, which enhance, diminish or change the direction of the primary thoughts. Primary thoughts are spontaneous judgments formed in the given situation, e.g. 'I am shy'. Secondary thoughts represent the meta-cognitive level and are reflections concerning the primary statements (e.g. 'Am I shy?') and cognitive results of these reflections ('In that situation I was suppressed by my interlocutor's authority, hence I could seem shy to myself').

Thus we define the meta-knowledge of the self (MS) as the ability of an individual to recognize psychological rules and biases in his own behaviour (Brycz, 2012). Rich meta-knowledge of the self means that meta-cognitive strategies are organized in such a way, so as to gain accurate self-knowledge. Therefore the attribution process itself should lead to definite (clear) judgments. An example could be external-internal factors (individuals with high MS know clearly, when their behaviour is triggered by the environment, and analogically, they know when they are the agents).

Former studies have indicated strong self-regulatory role of the rich meta-knowledge of the self. Subjects with high MS, in contrary to those with low MS, work efficiently when overloaded, follow medical advice more eagerly, solve tasks longer (Karasiewicz, 2009; Brycz, & Karasiewicz, 2011). In addition, studies conducted by neuropsychologists have proved that broad meta-knowledge of the self requires an individual ability of smooth transition from the actor's (self) perspective to the observer's perspective (how other people feel, perceive, think in an identical situation) and vice versa (Moskowitz, 2009).

RESEARCH PROBLEM AND HYPOTHESES

It seems that rich meta-knowledge of the self has an important regulatory function (such as persistent pursuit of an aim, etc.). It brings up a key question: Do individuals with high MS ascribe the level of recognition of their own bias to uncontrollable factors more often, than those with low MS? For example, they know that if you want to preserve friendship, you should follow the rule of mutuality and 'returning favours', nevertheless it is not due to the ex-

traordinary traits of their personality (e.g. generosity), but an uncontrollable element of a social landscape (we follow the rules of social influence in accordance with heuristic thinking, Doliński, 2005). We predicted the attribution process to be more incisive in case of individuals with high MS (more radical assessments), than those with low MS, for the dimension: internal-external (hypothesis 1). It results from the assumption that they spend more time analysing their own behaviours in terms of their personal reasons (traits) or acquired ones. The tendency to think about oneself and the others in terms of dispositions-environment is well-documented in psychology (Heider, 1958, Weiner, 2012). In addition we expected that MS differentiates the perception of internal reasons of one's own bias: subjects with high MS ascribe more uncontrollability both to constant and changeable internal causes, than subjects with low MS (hypothesis 2). We also assumed that MS differentiates the perception of external reasons of one's own bias: subjects with high MS ascribe more uncontrollability both to constant and changeable external reasons, than subjects with low MS (hypothesis 3).

METHODS

Subjects and procedure

The study group consisted of 245 students of the University of Gdańsk and the Kazimierz Wielki University in Bydgoszcz, aged 25 to 45 years ($SD = 2.5$), and included 70% of women. The students were assured about anonymity and purely scientific aim of the study. They were asked to fill in a set of questionnaires. The study was correlative. The following research tools were used to measure the variables:

Meta-knowledge of the self. Each participant received an abbreviated version of the meta-knowledge of the self questionnaire (Brycz, & Karasiewicz, 2011; Konarski, Jurek, & Brycz, 2013). The participants marked on the scale from 0% (does not apply) to 100% (applies strongly), to what extent certain regularity occurs in their behaviours. Although each regularity (e.g. the functioning of heuristics, the rules of social influence, etc.) is a statistical generalisation, its existence has been proved and replicated by many scientists. Therefore the stronger the respondents recognized these regularities in themselves – the greater insight they had into their self – meta-knowledge of the self. In the abbreviated version of the questionnaire the subjects assessed subsequently, to what extent 12 psychological regularities are present in their own behaviours (in this study the Cronbach's α for the shortened version of the MJ questionnaire = .71). The indicator of the meta-knowledge of the self was the mean of the 12 regularities calculated for each study participant.

Self-attributions. Then the subjects received a set of questions, separately for each of the 12 regularities. The questions asked about the causes (reasons) of each behaviour (a survey of reasons divided into the following categories: constant-changeable, internal-external, controllable-uncontrollable; Cronbach's $\alpha = .85$). The participants recalled a bias (the regularity already as-

essed in the MS questionnaire) and rated on the scale from 1 (*definitely no*) to 5 (*definitely yes*), how important each of the reasons was in demonstrating the bias. Table 1 presents a comparison of internal and external reasons included in the study.

Table 1.
Categories of reasons of psychological regularities and biases in one's own behaviour

| Internal reasons | External reasons |
|---|--|
| Constant and controllable: your self-developed traits, skills, by means of which you try to control the social environment | Constant and controllable: constant social influence in your work environment – you know that you should adjust to other people's behaviours |
| Constant and uncontrollable: traits which you developed under the influence of the environment, family, often in childhood; however, these traits are now a part of you | Constant and uncontrollable: the impact of family and friends on you |
| Changeable and controllable: need of weak intensity, e.g. hunger | Changeable and controllable: current impact of newly made friends; you know that if you want, you can end the relation quickly |
| Changeable and uncontrollable: unjustified current mood | Changeable and uncontrollable: current situation |

RESULTS

In order to verify the formulated hypotheses, linear regression analysis was conducted using SPSS.21 package, with the explanatory variable: meta-knowledge of the self, and explained variables: attributions of reasons in each group of reasons listed by Weiner (2012). Table 2 presents an overview of the descriptive statistics and bivariate correlations between the variables measured in the study.

Table 2.
Descriptive statistics and bivariate correlations between the variables measured in the study

| Variable | <i>M</i> | <i>SD</i> | 2 | 3 | 4 | 5 | 6 |
|---|----------|-----------|-------|-------|-------|-------|-------|
| 1 MS – meta-knowledge of the self | 53.24 | 13.18 | .296* | .285* | .278* | .260* | .195* |
| 2 Internal attributions | 3.07 | 0.36 | – | .567* | .527* | .639* | .544* |
| 3 External attributions | 2.92 | 0.46 | | – | .362* | .449* | .710* |
| 4 Constant, internal uncontrollable attributions | 2.92 | 0.59 | | | – | .218* | .245* |
| 5 Changeable, internal, controllable attributions | 3.00 | 0.56 | | | | – | .539* |
| 6 Changeable, external, uncontrollable attributions | 3.02 | 0.58 | | | | | – |

Note. *N* = 245, * *p* < .01.

Hypothesis 1, about the greater intensity of the attribution process in individuals with high MS, compared to those with low MS, was confirmed both for internal and external reasons. In accordance with the expectations, the higher the level of meta-knowledge, the stronger the tendency to ascribe internal reasons to behaviours ($R^2 = .09$; $\beta = .30$; $p < .01$; $t = 4.91$), as well as external ones ($R^2 = .08$; $\beta = .29$; $p < .01$; $t = 4.41$). Figure 1 illustrates the comparison of mean intensities of internal and external attributions in two groups: individuals with meta-knowledge of the self below the average level and those with meta-knowledge of the self above the average level.

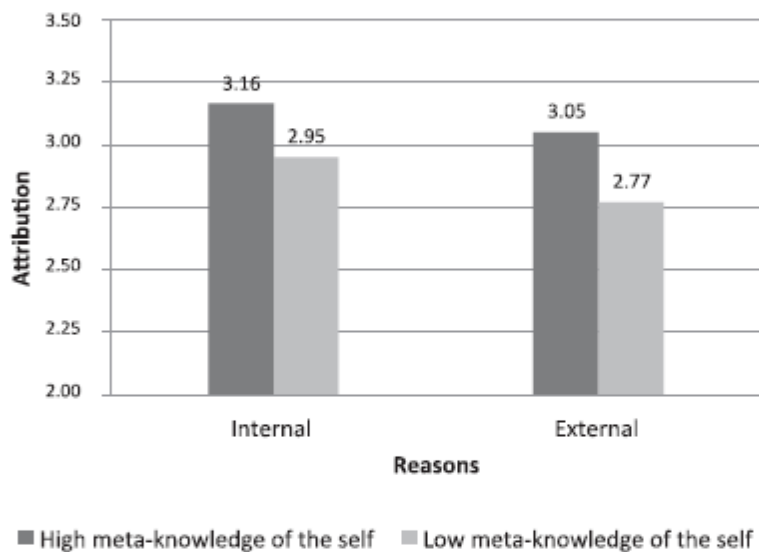


Figure 1. Average intensity of internal and external attribution of psychological regularities and biases in one's own behaviour in groups of individuals with high and low level of the meta-knowledge of the self.

The results of t test for independent measures between means: $t = 4.08$; $p < .01$ for internal causes; $t = 4.39$; $p < .01$ for external causes.

The obtained results also confirm hypotheses 2 and 3, about the more intense perception of uncontrollability as the reason of one's bias. Table 3 contains standardised regression coefficients for each category of reasons.

Table 3.
Results of regression analysis for different categories of reasons of psychological regularities and biases in one's own behaviour, with the meta-knowledge of the self as the explanatory variable

| Category of reasons | | B | p | t | R ² |
|---------------------|-------------------------------|-----|-------|------|----------------|
| Internal | constant and controllable | .10 | n.i. | 1.53 | – |
| | changeable and controllable | .11 | n.i. | 1.57 | – |
| | constant and uncontrollable | .28 | < .01 | 4.59 | .08 |
| | changeable and uncontrollable | .26 | < .01 | 4.26 | .07 |
| External | constant and controllable | .09 | n.i. | 1.00 | – |
| | changeable and controllable | .12 | n.i. | 1.30 | – |
| | constant and uncontrollable | .27 | < .01 | 4.38 | .07 |
| | changeable and uncontrollable | .18 | < .05 | 2.85 | .03 |

Note. $N = 245$.

Figure 2 presents the comparison of the intensity of different categories of attributions of psychological regularities and biases recognized in one's own behaviour in two groups with different levels of the meta-knowledge of the self.

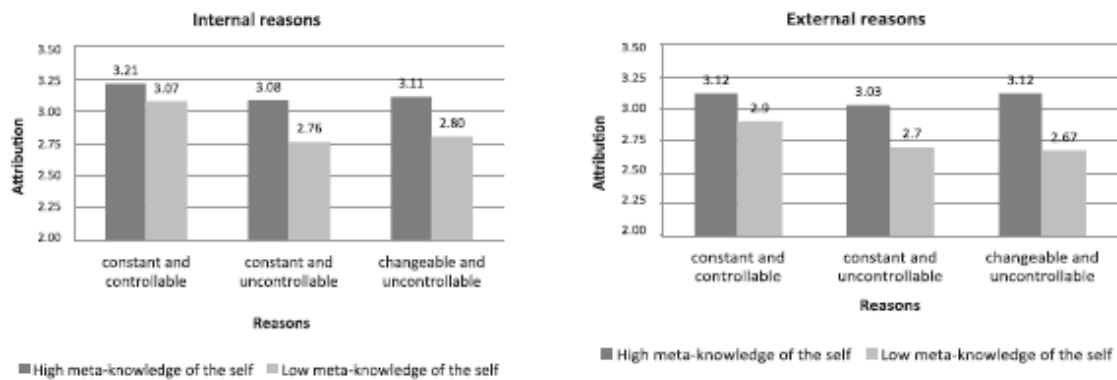


Figure 2. Means for different categories of attributions of psychological regularities and biases in one's own behaviour in groups of individuals with high and low level of MS. Figure on the left: internal reasons; figure on the right: external reasons.

The results of test t for differences between means: $t = 2.29$, $p < .05$ (internal, constant, controllable); $t = 3.72$, $p < .01$ (internal, constant, uncontrollable); $t = 3.13$, $p < .05$ (internal, changeable, uncontrollable); $t = 2.48$; $p < .05$ (external, constant, controllable); $t = 4.40$, $p < .01$ (external, constant, uncontrollable) $t = 3.55$, $p < .01$ (internal, changeable, uncontrollable).

DISCUSSION

Most people seek to control the environment and succumb to the illusion of control (Langer, 1975; Lewicka, 1999). Good insight into one's own bias enables to recognize the significant role of uncontrollability among the reasons of psychological regularities. Individuals with high MS know that the reasons of their behaviours often lie beyond their personal control. It refers both to environmental and internal reasons. Despite this quantitative and qualitative difference, individuals with low and high MS estimate similarly the intensity of constant and changeable, environmental and dispositional factors. The controllability factor changes everything: subjects with high MS accept attributions of uncontrollable causes to a much higher extent than those with low MS. It means that rich meta-knowledge of the self makes leaving an uncertainty margin more likely; enhances the comprehension of the unpredictable nature of the world, people and own self.

We have to bear in mind that the presented study is correlative and its results could be described in a different way. Certain way of explaining phenomena could trigger an in-depth self-reflection; or other factors, such as the level of openness, cognitive complexity, cognitive need or cognitive closure (Wojciszke, 2011; Lewicka, 1993), could form the basis of this relation. This issue requires further study.

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