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The Role of Attention in the Perceptual Model of Self-Knowledge

This article is addressed to the problem of the psychological constitution of self-knowledge, considered in light of its perceptual model. The starting point for these considerations is the hypothesis that attention, understood here as a psychological element of the mental ability that is self-knowledge, plays an important role in the process of gaining self-knowledge. According to this assumption, we need to build a model of self-knowledge that can adequately explain the path that leads from attention to self-knowledge. Thus the second claim made here is that the perceptual model of self-knowledge can help us with this task. While this model has been criticized in philosophy, the metaphor of the mind's eye has been successfully used in psychology to define a special kind of attention. The perceptual model should explain how it happens that inner mental states to which attention is paid appear in the field of consciousness due to the special kind of self-reflection that stems from the intentional character of consciousness.

Paying attention to one's own mental states is understood here as a type of introspection, whereas paying attention to higher-level mental states involves creating compositions from mental and phenomenal components to develop a self-representation of the subject of these states. Observations of one's own mental states constitute the subject of these states, i.e. the self. Introspection is, therefore, a psychological method for exploring self-consciousness that leads to self-knowledge, which is, however, described in philosophical terms. The former is an object of psychological — hence empirical — research; the latter is an object of philosophical consideration. But the question of introspection — and consciousness itself as a basis for gaining self-knowledge — determines the psychological account of self-knowledge. Thus the aim of this paper is to argue that, first, attention is the most important component of

inner perception, and second, that attention plays a crucial role in gaining self-knowledge.

1. PROBLEMS WITH THE RELATION BETWEEN ATTENTION AND CONSCIOUSNESS

Attention can be understood as:

taking possession by the mind, in clear and vivid form, of one out of what seem several simultaneously possible objects or trains of thought. Focalization, concentration of consciousness are of its essence. It implies withdrawal from some things in order to deal effectively with others (James 1890: 403-404).

We can also define attention in greater detail: external attention can be divided into exogenous and endogenous attention. The first is automatic and depends on external stimuli. It takes precedence over endogenous attention due to its evolutionary role. It is activated by stronger stimuli, e.g. when a dog suddenly barks, or a baby cries. Its role is to warn and to sustain readiness for action. It also functions when one object stands out from its background by virtue of some particular feature. By contrast, endogenous attention is voluntary and dependent on internal stimuli. It is activated for the purpose of spatial orientation and goal selection. A well-known example of this kind of attention is provided by the image representing either an old woman or a young girl (or by the picture of the rabbit-duck): we see a different object depending on the perspective from which we look at the image and the attention we pay to it. Voluntary attention also accompanies selective activation of goals or components of an action plan.

But how to understand internal attention — the attention paid to one's own mental states? What kind of attention is involved in identifying the particular state available in self-consciousness and eventually constituting the content of self-knowledge? In arguing that there is a connection between consciousness and internal attention, and hence a need to consider this relation before we arrive at the issue of self-knowledge, we can invoke many perspectives which vary with respect to the ontology of mind but agree on the question of the access to one's own mental states. For example, we can appeal to the strong non-reductionist conception of the first-person authority, advocated by Roderick Chisholm, who states that the essence of self-conscious subjectivity is the ability to directly assign each mental property to oneself. According to Chisholm, self-consciousness is a kind of attention directed at experienced psychological states, thus mental properties must appear in the field of consciousness, because only then can a subject reach the next level of consciousness, namely, self-knowledge (Chisholm 1981: 80).

Another ontological perspective comes from Thomas Metzinger. His position can be described as naturalized and reductive so far as the conception of embodied cognition is defined as such. According to Metzinger:

all states that are available and particularly those that are actually being introspected are phenomenal states. This means that they can become objects of the voluntarily initiated and goal-directed processes of internal attention (Metzinger 2004: 32).

Both perspectives emphasize the role of attention paid to the states appearing in the field of consciousness, yet there is also an important difference: according to Chisholm, a subject directly grasping the content of mental phenomena automatically (so to speak) reaches the next level of consciousness, namely, self-knowledge. The act of grasping a mental content is thus an act of self-knowledge. Hence the boundary between self-consciousness and self-knowledge is very fluid. Both acts are clearly distinguished from each other in Metzinger's account: introspected phenomenal states belong to the sphere of consciousness, not self-knowledge, which is propositional — a conceptualized form of introspected states.

If we take a philosophical stance, we can explain the connection between consciousness and attention either systematically or historically. The latter way seems to be more suitable for an elementary presentation of the issue in philosophical terms, but it is difficult to build models based on ideas presented chronologically unless we refer to a particular philosophical system. Accordingly, a systematic approach which combines ideas according to their specifications will be more suitable here. There are three related ways of presenting the issue systematically:

Methodological — concerning methods of empirical research and models that are hypotheses of how consciousness and attention work together. In this field, theoretical models of explanation are built and conceptual analyses are made. But since philosophy is detached from empirical findings, the methodology of research on consciousness and attention lies in the hands of scientists. Philosophers prepare material for analysis and conceptual processes.

Ontological — concerning relations (connections and distinctions) between attention and consciousness, as well as the neural correlates of consciousness and attention. For instance, we know that voluntary attention has its neural correlate in the prefrontal cortex. This leads to the supposition that attention has much to do with selective consciousness. Here, what we already know thanks to empirical research results in a description of a subject's activities, such as intentional actions, perception, and attitudes. However, this account is very loosely constructed and raises many philosophical questions. For example, is attention intentional in the same way as consciousness?

Epistemological — concerning the role that consciousness and attention play in terms of cognition, self-knowledge, and interaction with the environment. It is self-evident for a subject that the objects of attention are her mental states, the ones on which she focuses. In this case our attention

is voluntarily drawn to our current experience. This kind of attention provides a link between self-consciousness and self-knowledge¹.

Among these three approaches to the problem of the relation between attention and consciousness one is relevant to the account presented in this paper — namely, the epistemological aspect, which in accordance with its description can also be called the “cognitive aspect” of the relation between consciousness and attention.

In the framework of the epistemological-cognitive approach we can ask why a subject focuses on this rather than on some other mental state. For the most part, we experience multisensory perceptions, which means that we could concentrate on an alternative state, and even if we quickly switched from one state to another, we would be able to select only one state at a time. Could a subject be conscious of a different mental state or is the target of the inner attention unambiguously determined? The second option, the strong determinacy of the inner attention, is very unlikely, because we perceive with five senses (or six if one includes proprioception), and this already produces multiple contents that provide attitudes of a special kind. More probable is the hypothesis that if we are “attacked” by multiple stimuli, we could adopt a different attitude with a different content. In other words, if the content determines the attitude, and we receive more than one stimulus from the outside because of the diverse information delivered by the various senses, then we could focus on another state, and in consequence have a different attitude.

Both possibilities reflect the problem whether our inner (endogenous) attention is determined in the same way as the external (exogenous) attention is. In other words, can the inner attention be attracted by a stronger stimulus? If we assume that the inner attention is drawn voluntarily, then there is no room for this kind of determinacy. As such, the content of our consciousness depends on the attention paid to internal states, reflected in self-consciousness. It should be emphasized that in self-consciousness the subject pays attention to a mental state and not to the phenomenal state, and so the cause directing attention does not depend (at least directly) on a stronger stimulus but on the attitude itself. But it is also possible to assume strong determinacy of inner attention, if we accept the so called bottom-up way of determinacy:

One approach to the question of voluntary control is to argue that it is an illusion that arises out of the competitive activation of a large number of brain systems. What appears to be volition is the result of a complex network relaxing to a particular state. Although without denying the top-down component, this view stresses the bottom-up processes (Posner, Fernandez-Duque 1999: 44).

The third option in answering the question of whether we could have a different attitude than the actual one, arises when we assume that inner attention is not a separate conscious mental act, but rather a bodily action. In this case making a judgement about own mental states is a bodily action as well. As Christopher Peacocke claims:

¹ Self-consciousness is understood here as introspective self-awareness.

In ordinary action-awareness of bodily action, such as your awareness of raising your arm, your action-awareness need not involve your attending to your arm, or to its rising, even though your conscious action can certainly occupy your attention. If conscious thought is action-awareness, we would expect the same. The action of which you are aware in a distinctive way — making a judgement, forming an intention — does not involve the making of the judgement, or the formation of the intention, being the object of your attention. Rather, as in the case of bodily action, making the judgement, or forming the intention, occupies your attention (Peacocke 2006: 15).

Given that there is a genuine difference between being the object of attention and occupying attention, and that the acts of making a judgement or forming an intention are not objects of attention but rather occupy the attention, the question of whether we could have a different attitude with a different content in the same situation misses the point. Namely, it is not a question about the object of our attention. Our inner attention does not concentrate on a special object — such and such an attitude — but rather is occupied by the process of forming the attitude. So we could have a different attitude, but it does not matter. What matters is the fact that our attention would still be occupied by the forming of some attitudes.

All three possibilities are in a way speculative not only because the question about the relation between consciousness and attention is considered here in the field of philosophy, but because even cognitive psychologists have different opinions on the issue. In solving the problem of the dependence of the content of conscious states on attentional processes, we should find support in the models which describe this relation.

2. MODELS OF THE RELATIONS BETWEEN CONSCIOUSNESS AND ATTENTION

Operating on the assumption that conscious experience is fundamental to self-knowledge, I wish to propose a few models of the possible connections between consciousness and attention²:

Model I. Consciousness as attention. Here “to be conscious” means the same as “to pay attention”. This is what Brentano called intentionality of consciousness:

Every mental phenomenon is characterized by what the scholastics of the Middle Ages referred to as the intentional (and also mental) inexistence of the object, and what we, although with not quite unambiguous expressions, would call relation to a content, direction upon an object (which is not here to be understood as a reality) or immanent objectivity (Brentano 1995: 88-89).

The transformation of an unconscious content into conscious data should be constant — not as a result of focusing attention on it, because then the attention would be a separate act, but due to the features of such a content. In other words, the experienced content must determine and attract attention.

² An initial short presentation of these models has been given in (Pacholik-Żuromska 2011: 133-142).

One objection to Model I, which reveals that it does not fit current conceptions in analytical philosophy of mind, points to the incompatibility between mentalism and anti-psychologism³. A clash arises on the ontological plane, and this fact has consequences for epistemology. That is, mentalism is thought by some to be a view according to which psychological phenomena really exist, or that they are dependent on mental acts. It is thus an ontological hypothesis that cognitive items, such as desires, beliefs, doubts, etc. have the status of mental — hence private — entities. If this is so, then how can they be expressed in an objective or intersubjective way?

According to the first model, consciousness in Brentano's sense is always a consciousness of something and cannot exist without an intentional act of reference to itself. So, for example, if I hear a sound, I also grasp the phenomenon of hearing. Attention is of course a part of the intentional act — when I concentrate on the sound, I pay attention to this sound. Consequently, when an intentionally-directed attention towards the outside causes the appearance of a particular mental state or content, the intentionality of this state should simply be inherited from the attention. It means that consciousness is intentional in the same way as attention is. The object of intentional directedness of attention is also, in the same act, the object of intentional directedness of consciousness — that is why in Model I we speak of *consciousness as attention*.

Model II. Attention as a function of consciousness. In this model consciousness is a set of contents on which one concentrates, whereas attention is a tool used by a conscious subject to bring out the information which is important at the moment. It seems, however, that this model could lead to an infinite regress: paying attention to higher-level mental states also supposes a higher level of consciousness: being conscious of being conscious, if we assume that self-knowledge is a higher-level mental state containing beliefs about having beliefs. But Model II can be saved by assuming that attention is just one of the activities of consciousness. In another version of this model, “attention” is thought of as the name of the relation between a subject and a conscious content. On this picture, a subject pays attention to her current state of mind, which means that the subject refers to the state of mind.

But there is also an objection, namely that such a relation is just a form of some other propositional attitude. If attention is a relation between a subject and the con-

³ The perceptual model of self-knowledge does not necessarily lead to psychologism and thus to the methodological problems associated with it. The debate between psychologism and anti-psychologism is clearly visible in discussions of intentionality (Rojszczak 2001):

Psychologism: Intentionality is a monadic relation of mental acts; it is a relation of being directed towards the contents of these acts.

Anti-psychologism: Intentionality is a binary relation between mental acts and the world.

Psychologism: The contents of mental acts are the immanent objects of thoughts.

Anti-psychologism: The contents of mental acts refer to objects which exist outside of these acts.

Psychologism: Intentionality can be grasped only by introspection.

Anti-psychologism: The relation of intentionality is represented in sentences.

tent of her states, then what is the difference between this kind of relation and other relational attitudes? And how can paying attention to an attitude be explained in terms of another attitude? Is this not a vicious circle?

This account seems to overlap with the requirements of the perceptual model of self-knowledge, which is also relational and in which inner perception means paying attention to the inner object of the mind, thus being directed at a mental state. The metaphor of the mind's eye is also very useful in this model — especially if we take as an example the conception of a psychologist, Ronald A. Rensink (2008). According to him, mechanisms of visual concentration on an object operate at different levels of the visual system, also in the inner perception of objects represented in the mind, like images recalled from memory. The function of concentration of the mind's eye on the selected element in a visual field is the same as the function of the external eye — to circumvent restrictions governing visual system (Jonides 1983).

Model III. Attention as a separate mental act. Here, paying attention is a conscious mental act that delivers new content in the field of consciousness but is considered independent of consciousness. This means that consciousness and attention are treated separately, in the sense that consciousness is a set of contents. In other words, consciousness and subconsciousness make up the content of the mind, and attention is a special mental act in which this content is brought out. It seems that psychoanalysis works in this way, when a patient goes deep into her subconscious by focusing on her memories or dreams.

Despite its psychoanalytic implications, this model seems to be the closest to cognitive models of attention, where important investigations look for solutions to the problem of how attention works. This model in the framework of cognitive psychology is represented by Bernard Baars' Global Workspace Theory:

The contents of consciousness can be guided, both voluntarily and spontaneously, like a bright spot on the stage of working memory. As we showed before, WM [working memory] is not entirely conscious. We can add this feature to our theatre metaphor. Let's say that the theatre has a powerful spotlight of attention, and only events in the bright spot on stage are strictly conscious (Baars 2004: 303).

Such an account leads to an epistemological problem when we consider voluntary but not automatic attention. Is it the role of a subject to voluntarily train her attention? It seems that in Baars' conception there is no room for voluntarily drawn attention, given that we connect will with consciousness. The adjective "voluntary" is tantamount to "conscious" here, and as long as attention — "the spotlight" — is primary with respect to consciousness — "bright spot" — the question arises: who directs the spotlight? A stronger exafferent signal⁴?

Model III also bears on the perceptual model of self-knowledge. Inferences can be made in the same way as in Model II, where paying attention amounts to perceiving one's own mental states. But in Model III these implications lead to the hom-

⁴ Exafferent — coming from the surroundings of the subject.

unculus metaphor, namely: if attention is not a function of consciousness but rather a separate mental act in which the subject voluntarily pays attention to some content, then the mind must be structured in levels: on the highest level there exists a commander who decides what is important and what should be present in consciousness. One way of thinking about this is to consider attention a separate mental act, not of the subject, but of a homunculus in her head — but this approach, of course, leads to an infinite regress.

Model IV. Analyser and synthesiser. This model has been offered by Jacob Hohwy (2012), who claims that attention is a kind of “analyser, dissecting and selecting among many possible and often competing percepts one has at any given time” (2012: 1). He distinguishes between attention and perception — but insists that the two are related as aspects of prediction, in an error-minimisation mechanism.

Hohwy claims that if attention is an analyser, then consciousness is a synthesizer, ordering and combining inputs coming from different senses at the same time (2012: 1). Together with the article by Van Boxtel, Tsuchiya, and Koch (2010), this could clarify the character of relations between consciousness and attention, also giving us an answer to the problem of why, among other states, one particular state appears in the field of consciousness and becomes the content of an attitude. However, Hohwy sees a serious methodological problem in explicitly defining, distinguishing, and operationalising attention and consciousness, because of their deep connections:

It is sometimes said that a good way to conceive of conscious perception and attention is in terms of the former as a synthesizer that allows us to make sense of our otherwise chaotic sensory input, and the latter as an analyzer that allows us to descend from the overall synthesized picture and focus on a few more salient things (Van Boxtel et al. 2010). The predictive coding account allows this sentiment: prediction error minimization is indeed a way of solving the inverse problem of figuring out what in the world caused the sensory input, and attention does allow us to weight the least uncertain parts of this signal. The key insight from this perspective is however that though these are distinct neural processes they are both needed to allow the brain to solve its inverse problem. But when there are competing models, they can work against each other, and conscious perception can shift between models as precisions and bounds are optimized and the world selectively sampled (Hohwy 2012: 12).

Thus, according to Hohwy, there is a deep connection between consciousness and attention. Although they are distinct, they rely on a similar mechanism. Clearly, models could help somewhat in giving an adequate description of the relation between them, but it is also obvious that even if they refer to empirical findings, they remain highly speculative.

3. THE ROLE OF ATTENTION IN GAINING SELF-KNOWLEDGE

The important ontological question about the relationship between the conscious content of the mind and attention is: how do we pay attention to our inner state of mind? In other words, how do we perceive our mental states?

Historically, the perceptual model of self-knowledge has its roots in ancient and medieval philosophy, but we will not go back so far. Still, we do need to refer to modern philosophers like Locke and Hume. Their conceptions — the perceptual model of self-knowledge based on introspection and the perceptual approach to the self — provide a framework for describing the constitution of self-knowledge. In this light it is clear that what eventually connects consciousness with attention is intentionality.

Locke represents an epistemological approach to self-knowledge, which is gained on the basis of observation of one's own internal states leading to an immediate formulation of judgements about one's own mental states. He believed that knowledge comes from two sources — senses and reflection. Thanks to the senses, and thus through perception, we acquire knowledge of external objects. Reflection, on the other hand, gives us knowledge about the inner objects of mind. Although Locke distinguished perception from reflection, he concluded that the two are quite similar. Reflection is the inner sense:

The perception of the operations of our own mind within us [...] do[es] furnish the understanding with another set of ideas, which could not be had from things without. And such are perception, thinking, doubting, believing, reasoning, knowing, willing, and all the different acting of our own minds — which we are conscious of, and observing in ourselves, do from these receive into our understandings as distinct ideas as we do from bodies affecting our senses. This source of ideas every man has wholly in himself; and though it be not sense, as having nothing to do with external objects, yet it is very similar, and might properly enough be called *internal sense* (Locke 1952: 123).

Locke, regardless of his contribution to psychology, has been criticized for this metaphorical account of self-knowledge. One objection states that the perceptual model of self-knowledge leads to a vicious circle, because it cannot explain that the identified object of perception is the self. However, this model demonstrates that the self is transparent to the subject, because the perceiver cannot identify the perceived object as the self precisely by virtue of its transparency. Hume, in turn, had a specific approach to the self, regarding it not as a substance but rather as a construct — an effect of inner perception of external perceptions. This is what Hume meant by perception of the bundle of perceptions which belong to one subject: we observe our own mental states, and on this basis we create a current model of ourselves.

A contemporary interpretation of the theories of Locke and Hume can refer to the assumption that intentionality, defined as the direction of a subject to the content of her mental states, is a kind of attention. In the light of this assumption, attention connects phenomenal awareness with introspection. From this connection arises the core of the self-model, that is, the sense of the self, and with it self-consciousness and consequently self-knowledge, understood here as a subject's knowledge about her own mental states. In short, we gain self-knowledge by paying or drawing attention to our mental states, such as desires, wishes, beliefs, and pains or tickles. In introspective consciousness the objects of attention are also objects of intention (intentionality).

What we focus on in introspection is the intentional object of our thinking. This focalization is a part of the intentional act, which of course is much broader than only an experience of a contentful state and refers to the subjective structure of experience. The whole operation of looking at our mental states is performed in a permanent shifting between phenomenal self-awareness and propositional self-knowledge, i.e. between the phenomenal and propositional levels, which constitute the self. This is what we can call „the phantom of the inner eye”. A human agent perceives her mental states in the same way in which she perceives objects from the outer world. Of course one can say that the relation is different, because there are intermediaries (*sensibilia*, representations) between subject and the observed outer object (cf. Millikan 1991). However, while the difference is important for epistemology, it is less so for psychology. On the level of reflexive consciousness, the agent perceives equally the content of perception and *that* she perceives it. The perception of inner states in this way causes the belief that an agent is a subject of these states.

Thus understood, attention can be divided into two forms of cognition, i.e. movements of the (inner) eye, attention from inside to outside, and attention from inside to inside. Attention from inside to outside is a relation between a subject and an object in the world. For example, if I see a cat, I am (as the subject of a mental state) in a relation of seeing the object in the world — in this case the cat. Attention from inside to inside is a relation between a subject and an object in her mind. The psychological aspect of self-knowledge, referring to the question of consciousness, often overlaps with its epistemological aspect, which is also associated with the question of a subject’s access to the content of her mental states. On such an account, a subject is not only able to collect and remember thoughts, which she can then apply to reality in the form of true judgements, but is also able to move from her first-order beliefs to second-order beliefs. This activity consists in ascribing to oneself a propositional attitude with a certain content, or a phenomenal state. For example, if I believe that at night every cat is black, I stand in the relation of believing in the proposition “At night every cat is black”. This means that I have a propositional attitude, in this case a belief about cats. On the secondary level of belief, when I am aware of having this belief about cats, I have knowledge about my own attitude, which means that I have this attitude and I know its content.

In this way inner attention becomes an important component of the process of gaining self-knowledge. The perceptual model of self-knowledge adequately illustrates the role played by attention. If we want to call a human being a “self-controlling system”, then the phantom of the inner eye refers to a watcher who is in fact absent. This case can be aptly described using the metaphor of the *Panopticon*⁵: an uncon-

⁵ A prison whose circular structure caused inmates to experience the feeling of being observed all the time. Prisoners are not able to tell whether the watchmen is watching them or not. The idea of the panopticon, put forward by Jeremy Bentham in the 18th century, was described as “a new mode of obtaining power of mind over mind” (Bentham 1995: 31).

scious system creates one's own *panopticon* for the purpose of self-observation and the creation of a self-model, which depends on the mental content of memory and the actual states constituting it. On this basis a subject regards herself as an autonomous mental (even substantial) self. As a subject, she observes her mental life and formulates a narration about herself in her higher-order thoughts. Being a subject here means being someone actually observed.

Gareth Evans and Ruth G. Millikan are less enthusiastic about the perceptual model of self-knowledge. Millikan, like Frege, warns against confusing the intentional content of a representation with the attributes of a vehicle of representation. She asks an important question: "How will the inner eye perceive the inner picture? In the same way that the outer eye does?" (1991: 440), and consequently — how must it move the thinking system in order to represent itself? (1991: 440). These questions are significant because there should be no intermediary between a subject and her mental states. The relation of self-reference should be direct; otherwise, there is no first-person authority. The subject should have a direct, privileged access to her own mental states. According to Millikan, the perceptual model of self-knowledge fails to ensure this directness.

Evans brings up the same problem. He calls it *the sense-datum fallacy* or *the homunculus fallacy*, which occurs

when one attempts to explain what is involved in a subject's being related to objects in the external world by appealing to the existence of an inner situation which recapitulates the essential features of the original situation to be explained [...] by introducing a relation between the subject and inner objects of essentially the same kind of relation existing between the subject and outer objects (Evans 1985: 397).

From this perspective the perceptual model of self-knowledge has no chance for success.

However, in responding to these doubts, we must repeat that while these problems may occur in the framework of ontological considerations, they are less relevant to psychology. Psychologists would reply: Yes, the inner eye perceives the inner objects in the same way as the outer eye does (Jonides 1983). If we consider the inner attention as being an inner perception, then we consider the psychological, but not ontological component of self-knowledge. If we assume that the central role in intentional direction is played by attention, then introspection has to be a type of paying attention to one's own mental states, whereas paying attention to higher-level mental states is a composition of mental and phenomenal components that together create a self-representation of the subject of these states. This means that the inner perception is relational in form. The relational approach to intentionality affects the way we think of mental functions and products called propositional attitudes such as judging, believing, and doubting, which themselves are relational. In the perceptual model a subject performs both actions: she perceives the content of perception and at

the same time perceives that she perceives it. The perception of inner states in this way causes the belief that the agent is the subject of these states.

The position advanced here becomes clearer when we consider a specific situation. The self-observation of a subject interacting with her environment is most evident in making and implementing decisions. These situations reveal a subject's autonomy. The moment presents a choice of action, which is preceded by a decision-making process. In folk psychology it seems obvious that such a rational decision-making is a conscious process. There is no doubt that the recognition of free decisions in human agents is an important factor constituting the autonomy of the subject. In other words, decision-making causes the belief that one is an autonomous subject, and hence a self. However, the attitude of "willing to do x " is secondary in relation to other mental acts, for example to paying attention, because to identify a decision an agent has to concentrate on her particular mental state. In other words, it is not the will itself but the attitude of willing to do x that has to be conscious first. We can illustrate this by invoking the metaphor of the inner eye which is watching. What is perceived is a particular mental state, such as desire. A subject recognizes the mode of this state via its content, which appears in the field of consciousness thanks to the attention paid to it. As such, paying attention to one's own mental states causes the belief that one is an autonomous subject, and hence a self.

Voluntary attention is a conscious focus on an inner state or on an outer object; hence, there is a need to explain the connection between this kind of attention and the conscious content of the mind. However, in this article we are concerned not so much with the ontological foundations of free will as with the psychological mechanisms for the formation of a self and on the epistemological character of the mechanisms for accessing that self. In the perceptual model of self-knowledge, ascribing to ourselves the capacity for voluntary action — as well as being able to observe this process by movement of the inner eye — makes us believe that we are autonomous, independent, and individual selves.

It was mentioned above that the ontological relation is not the same, because there are intermediaries between the subject and the observed outer object; however, while the difference is important for the theory of knowledge, it is less so for psychology. On the level of reflexive consciousness, the agent both perceives the content of perception and at the same time perceives that she perceives. The perception of inner states in this way causes the belief that the agent is the subject of these states. In the same way, the perception of decision-making (as a special kind of attitude) causes the belief that she is the subject of the decision. On these grounds the agent infers that the decision was her own, and hence was independent and autonomous.

When we consider decision-making we have to confront the relation between the inner and outer perception. While the question posed by Millikan of "How does the inner eye perceive mental objects?" is relevant for ontology and epistemology, in view of our concern with self-knowledge that question is no longer valid in the field of individual psychology. When it comes to self-formation as the inner sense of being a

subject, what is important is the feeling of a connection to oneself. A loss of this connection means that the sense of being an integrated subject is disturbed. As long as I see my body doing “what I want” I feel autonomous and stable⁶.

Awareness of a decision as being my own and independent of external factors is important for long-term planning. Being convinced that decisions have their source in the subject’s conscious mental actions is a condition for a reasonable deliberation about her past and future and gives a reason for further planning, because all the decisions become a part of the subject and the consequences of these decisions together create the subject’s story. So the inner eye watches not only the inner states but also the internalized outer states of the subject, i.e. the relations between the subject and the world which are determined by the subject according to her will.

CONCLUSION

At the beginning of this paper it was supposed that the creation of the self as a core part of being a subject depends on the attention paid to one’s own mental states. An attempt was made to show the relationship between attention and consciousness. The role of intentionality of perception, in terms of inner and outer objects, has been explained, and it was argued that it is connected to attention in the sense that voluntary attention accompanies intentional direction. An assumption was made that inner mental states, to which attention is paid, appear in the field of consciousness because of a special kind of self-reflection. In this act one state is picked out from among many others that are possible but not realized. The observation of one’s own mental states constitutes the subject of these states, i.e. the self.

This was taken from Locke’s conception of “the inner eye of mind”. The subject is the “watcher” of her mental states. This supposition to some extent follows the perceptual model of self-knowledge: from the psychological point of view it is important to acknowledge some kind of integrated control, which is embodied and phenomenally experienced — that is, a subject is the physical cause of her actions and she experiences them “when her body is listening to her”. First, the sense of having control is conscious, and thus mental. This very consciousness of one’s own mental

⁶ Experiments like Rubber Hand Illusion (RHI), Body Swap Illusion (BSI), and Full Body Illusion (FBI) show that false self-identification, and hence the fall of first person-authority, are possible even without psychosomatic disorders and concern errors in ownership or the misidentification of the whole body or limbs. A person can experience a fake hand (RHI) as belonging to her or having a first-person perspective from the position of another person (BSI), or she can even feel as if she were embodied in the body of a mannequin or a robot (FBI). In brief, these experiments lead to the conclusion that a person localizes herself where she sees her body. The perceptual model of self-knowledge also offers an alternative explanation of self-delusion as well as the cases in which first-person authority is impaired, such as bodily illusions, split-brain perceptual disorders, somatoparaphrenia, or asomatognosia. The fall of first-person authority amounts, in this model, to the fall of the internal watcher — an error in our mode of inner perception.

states I call “the phantom” of the inner eye of the mind. The phantom appears here not because consciousness is unreal or virtual but because the inner eye is. This sense of control manifests itself particularly in the conscious mental process of decision-making at the moment of the appearance of a specific attitude in the field of consciousness (despite the fact that it is preceded by unconscious physical processes in the brain). The decision, and the reflection that the decision belongs to its subject, makes the sense of self stronger and clearer than in the other situations, because at the moment of decision-making the subject feels especially autonomous. And the feeling of this autonomy gives the subject a reason to perceive herself as an independent, individual, and unique self.

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