

ON THE DIFFERENTIATION BETWEEN SELF AND NON-SELF

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Abstract:

In this paper we compare two approaches to the distinction between inside and outside or self and non-self. First, we consider the approach of Freud, who offers a conceptual framework in which the inside/outside distinction is a matter of stages. The initially helpless infant effects a number of operations on the basis of the value or quality of the stimuli. From the beginning on, the other fellow-human plays a decisive role in this process. From a more phenomenological point of view, i.e. the work of Merleau-Ponty, we present the view of Gallagher and Meltzoff, who offer via research on phantom limbs and invisible imitation indications for the existence of a differentiation between self and non-self from birth on. The comparison of these two lines of research enables us to evaluate their contribution and to show how they could mutually supplement and improve each other.

To talk about self and non-self or about the inside/outside distinction is possible from different points of view and, accordingly, the terms can be interpreted differently. In advance, it should be said that the pair self/non-self on the one hand, and the pair inside/outside on the other hand, will be used interchangeably here. The question whether this is problematic or not, will not be dealt with explicitly here.

In *everyday* experience, the distinction between inside and outside does not occupy most of us. The question “What is inside and what is outside of me?” is not an explicit or recurrent theme in everyday experience. Most of the time, the distinction is no straightforward problem; it is a kind of givenness that I do not even notice or observe directly. Nonetheless, it is there, and underlies each of my experiences.

The question about the origin of the distinction is certainly a *philosophical* one. It is asked whether something and, if so, what precedes the distinction, or where (and by means of which mechanisms) it has originated. The French phenomenologist Merleau-Ponty assumed that a newborn is unable to make a rudimentary differentiation between self and non-self. According to him, the newborn has a confused and undifferentiated experience of itself and the other. That would be due to a neurological immaturity by which external perception and the development of a *body schema* is prevented. We will address this issue from the point of view of recent experiments that try to examine the earliest experience of self and other(s).

Also from the perspective of a *psychology*, the distinction or the givenness in question is at issue. According to Assoun, every theory on interiority of any importance, i.e. any theory that asks how something as an inside, separated from an outside, originates, should ask the metapsychological question “how, departing from an undifferentiated ‘I-feeling’ (*Ichgefühl*), the separation happens of an ‘inside’ and *its* ‘outside’?” (Assoun, 1989: 45, my translation) Freud approaches the issue, among other things, through the pleasure ego. On the basis of the operations of the pleasure ego, he tries to throw light on the origin of the inside/outside distinction. Freud is our second reference here.

The result of following these two tracks, a philosophical-empirical one and a Freudian one, is useful in order to see how two different perspectives to the same problem can result in very different accents, and to see how divergent the status can be that is ascribed to the elements that may play a role in the distinction inside/outside, or self/non-self.

Freud’s general frame

Freud ascribes two functions to the primary nervous system. First, the nervous system tries to dispose of the quantities that it is harassed with via the stimuli (*principle of inertia*). The secondary function is that the discharge is realised in such a way that the stimulus comes to an end. This is the *flight from the stimulus*. The principle of inertia faces from the very beginning an obstacle: the nervous system does not only take on stimuli coming from the outside, but endogenous stimuli as well, coming from the own body.

Exogenous and endogenous stimuli differ in two ways. First, the primitive organism is unable to withdraw from endogenous stimuli by fleeing, as in the case of exogenous stimuli. The effect of the stimulation therefore is different

and requires other movements in order to be removed. Second, the endogenous stimulation works as a constant force, in contrast to the exogenous stimuli, which have a momentary impact. However, stimuli can differ in yet another way, namely on the basis of pleasure and unpleasure. It is precisely upon this difference, which is not disconnected from the other differences, that the pleasure principle seizes.²

For the newborn, however, there is no difference between these two kinds of sensations, those coming from the outside and those coming from the inside. Initially, the individual reacts in the same way to the unpleasure that is brought about by endogenous and exogenous stimuli: an effort to discharge or an urgency arises that is tried to be discharged by means of the motor system. Such a discharge, however, does not neutralize the unpleasure caused by the endogenous stimuli (such as hunger, breathing, sexuality), because for this, a change is needed in the outside world, such as being fed, or the presence of the sexual object. In 'Instincts and their vicissitudes' (1915), Freud explicitly relates the inside/outside distinction to movement. "Let us imagine ourselves in the situation of an almost entirely helpless living organism, as yet unorientated in the world, which is receiving stimuli in its nervous substance. This organism will very soon be in a position to make a first distinction and a first orientation. On the one hand, it will be aware of stimuli that can be avoided by muscular action (flight); these it ascribes to the world. On the other hand, it will also be aware of stimuli against which such action is of no avail and whose character of constant pressure persists in spite of it; these stimuli are the signs of an internal world, the evidence of instinctual needs. The perceptual substance of the living organism will thus have found in the efficacy of its muscular activity a basis for distinguishing between an 'outside' and an 'inside'." (Freud, 1915: 119)

The specific action, necessary for the neutralization of the unpleasure brought about by the endogenous stimuli, has to be done by someone else, who responds to the attempts to discharge by the infant (e.g. screaming). In this way, the unsuccessful attempt to discharge gets the secondary function of making oneself understandable (social function). The other helps the helpless individual to neutralize the endogenous stimulus, which brings about an experience of satisfaction. Since the urge comes to an end, a lasting discharge has been realized. Moreover, two mnemonic images arise: first a cathexis of neurons which corresponds to the perception of the object that neutralizes the unpleasure, second, a cathexis of neurons which corresponds to the information of the discharge.

But here a second biological problem arises: when the individual is again in a state of urgency or wishing, the cathexis passes over on to the memories and will activate them, which results in the hallucination of the object of satisfaction. The discharge is getting going again, but the satisfaction fails to occur because the object is not real, but an imaginary idea. Therefore, a criterion that allows a distinction between perception and idea, the indication of reality, is of vital importance. Biological experience will make sure that the individual won't get going the discharge as long as the indication of reality has not arrived.³

In case the object of perception is a fellow human-being, the perceptual complexes are on the one hand new (e.g. the features of the face), but on the other hand already known (e.g. movements of the hand). The acquaintance originates in the fact that some perceptions coincide with the memories of impressions of the own body that are associated with it. To scream reminds of the own screaming, and of the own experience of pain. In that way, the fellow human-being breaks up into two parts. On the one hand, there is a complex that can be understood by means of the memory of the own body, on the other hand there is a constant structure, which sticks together as a thing. In case the experience of the own body, the sensations and the motor images were failing, the first part remains understood. Perception breaks up into an object-nucleus and a motor image.⁴ The own motor image becomes activated, such that perception has an imitation-value.

Three stages and two matters of inside and outside

Let us go more deeply into the formation of the ego, in relation to the necessity to make a distinction between an inside and an outside. In 'Instincts and their vicissitudes' (1915), Freud talks about a primal psychical situation, in which the ego is cathected with needs and is to some extent able to satisfy its needs 'on itself'. Yet, this situation of narcissism is immediately disturbed, because the needs can never be satisfied completely in an auto-erotic way. As far as the ego is auto-erotic, it does not need the outside world. However, it cannot prevent that it perceives the inner instinctual stimuli that generate unpleasure. In that time, the ego or the subject coincides with what is pleasurable, while the outside world remains indifferent for it (but is possibly a source of stimuli that generate unpleasure). Under the influence of the pleasure principle, this original reality ego develops further. The individual takes in its ego the offered objects in, as far as it are sources of pleasure, and expels whatever within itself causes unpleasure. "In the second place, the irruption of 'various and inevitable sensations of pain and unpleasure' (Schmerz- und

Unlustempfindungen) which cause in a certain way the insurrection of the 'dominating' pleasure principle that tries to get rid of them. It is that which puts the 'tendency' of 'isolation' and 'expulsion' into action, by means of which the Ego puts itself aside from the 'external world' defined as a strange and threatening 'outside' (fremdes, drohendes Draussen).» (Assoun, 1989: 45-46, my translation). Assoun calls it a "tendency to detachment of the ego from the mass of sensations", the correlate of which would be "the recognition of an outside" (Assoun, 1989: 46). The recognition of an outside thus happens according to a principle of detachment. The interiority arises in this way from a 'self-delimitation' of the 'I-world' to an actual or proper 'I'. Initially, the ego contains everything; later on it detaches itself from the world. Therefore, we can call the ego-feeling the shrivelled or shrunked rest of a feeling that was without outside or inside.

Let us resume. The original reality ego already had made a differentiation between inside and outside, namely on the basis of the ability or inability to flee from the stimulus, at which the mass of sensations that remain constant is opposed to those that can 'run dry'. The pleasure principle is a motive for a further development towards a pleasure-ego, because the needs cannot be satisfied in an auto-erotic way and the individual so experiences unpleasure.

In the transition to a pleasure-ego the world breaks up into a pleasurable part, which is, however, incorporated, and a remainder, which is experienced as strange. Thus, from the own ego a part is split off, which is rejected into the outside world and experienced as something hostile. A reorganization has taken place, and the polarities I/subject against the outside world and pleasure against unpleasure (before indifference) coincide again. In other words, the polarities of the pleasure-ego are parallel again with those of the original reality-ego. The distinction inside/outside on the basis of movement is a transitory stage. It is actually due to the parental care that the primal situation of narcissism is artificially prolonged and that something as the establishment of a pleasure-ego becomes possible.

But how does the transition from a pleasure-ego to the definitive reality ego pass? According to Freud, in 'Negation' (1925) it is again an issue of inside and outside, and thus for the third time, the organism carries out an operation at which an inside is separated from an outside. Freud discusses this in the frame of the function of judgement, which has to take two sorts of decisions. First, it has to affirm or disaffirm certain attributes to an object. He relates this to the pleasure-ego, which wants to introject into itself the good and eject from itself

the bad. The second decision of the function of judgement concerns the assertion or the disputation that a certain presentation exists in reality. Freud relates this to the interest of the definitive reality ego and to the necessity of reality-testing. “It is now no longer a question of whether what has been perceived (a thing) shall be taken into the ego or not, but of whether something which is in the ego as a presentation can be discovered in perception (reality) as well. It is, we see, once more a question of external and internal. What is unreal, merely a presentation and subjective, is only internal; what is real is also there outside. In this stage of development regard for the pleasure principle has been set aside. Experience has shown the subject that it is not only important whether a thing (an object of satisfaction for him) possesses the ‘good’ attribute and so deserves to be taken into his ego, but also whether it is there in the external world, so that he can get hold of it whenever he needs it.” (Freud, 1925: 237)

Freud clearly speaks in terms of sensations that are not objective, or, in other words, that are intrinsically meaningful for the organism. Even before there is any talk of a psyche, the organism already is something which relates itself; as a biological being it cannot but – and this is an evolutionary element – ascribe a value to the stimulus. It precisely is the fact that the sensation has a meaning in terms of pleasure and unpleasure, which drives the organism to develop further and to reorganize the distinction between inside and outside. Moreover, the detachment happens in several stages, which implies in each stage a reorganization of inside and outside. In recent studies, the theme of sensation is not absent, but the status ascribed to it is completely different.

Merleau-Ponty and recent studies in developmental psychology

Both in classical and in more recent descriptions, the organized and meaningful perception of oneself and others is considered as dependent on a proprioceptive system. That proprioceptive system is an aspect of a developed body schema which provides an ‘intermodal’ translation between the external and the internal senses. In this part, we try to trace what the consequences of the body schema are for how we experience ourselves and others and what the so-called intermodal system is. Further, it is discussed whether the body schema is innate or not.

Merleau-Ponty, as philosopher of the body, uses the term ‘schéma corporel’. He was strongly influenced by developmental psychology, among others represented by Wallon. Merleau-Ponty claimed that several aspects of

the development are hindered due to a neurological immaturity that prevents the development of the body schema.

Recent experiments show that very young infants are a lot earlier capable of external perception and the imitation of gestures than Merleau-Ponty thought. Research into imitation in neonates shows, or rather, suggests that in the experience there is a connection between self and other from birth on. Moreover, experience is not, as Merleau-Ponty was thinking, a confused and undifferentiated experience. Therefore, the relation between self-experience and the experience of other persons is reconsidered from those data.

Gallagher and Meltzoff approach the issue in a twofold way: on the one hand the phenomenon of phantom limbs, on the other hand the phenomenon of imitation in very young infants.

Phantom limbs and the experience of oneself

The issue of phantom limbs mainly serves to elucidate the distinction between body schema and body image. We need this clarification for the issue of external perception and thus for the distinction between self and other.

In the case of absence of limbs at birth and in the case of very early amputations (i.e. before six years), phantom limbs normally do not arise. This is explained on the basis of the traditional assumption that phantom limbs exclusively are a phenomenon of the body schema. A body schema would be something that, in that frame, develops gradually, by means of felt sensations of a proprioceptive, kinaesthetic and tactile nature (e.g. Simmel, 1966). No phantom limb would develop because the absent limb was never experienced and therefore cannot be incorporated into the body schema. Also according to Merleau-Ponty, the body schema is a product of development. Nevertheless, the body schema functions as if it were an 'innate complex'. The phantom limb then is explained on the basis of a history of sensory input and the continuation of sensory input at the stump.

According to Merleau-Ponty, and here he follows Wallon, experience starts with interoception and the neonate does not have the ability of external perception. External perception is rather vague and only becomes clearer between the third and the sixth month. It is also between the third and the sixth month that a cooperation arises between the interoceptive and the exteroceptive domain. One of the reasons why an organized exteroceptive perception is not

possible earlier on would be the absence of a ‘minimal bodily equilibrium’. For external perception to be possible, one needs a global consciousness of the position of one’s own body in space. Initially, the body schema is absent, due to a defect or a biological retardation in the physiological development. Only later the body schema matures and becomes gradually integrated in interaction with the system of external perception.

From 1961 on, phantom limbs were no longer seen as the result of earlier stimulations of the missing part. As a consequence, the body schema would be innate, but open for further development. The descriptions of the occurrence of phantom limbs of that time, however, did not make a distinction between the body schema and the body image. The body schema can be defined as a system of motor capacities, which functions without having to be perceptually followed up or controlled. The body image, in contrast, exists of a system of perceptions, attitudes, and beliefs regarding the own body. Both systems interact, but the distinction is conceptually useful. The conceptual distinction between body image and body schema relates to the distinction between having a perception of something (or having a belief about something) on the one hand, and having a capacity to move (or having the ability to do something) on the other hand.⁵

Thus, the body image is a complex set of mental representations of the body, a kind of explicit and self-referential intentionality, which is perceptual, conceptual and emotional. The body image is no perception, belief or attitude, but a system of motor functions which are active below the level of self-referential intentionality. However, it can enter in the intentional activity, and in general it supports the intentional activity. The body schema is a whole of ‘tacit’ operations, pre-conscious and sub-personal processes that play a dynamical role in the regulation and control of position and movement.

Merleau-Ponty does not distinguish explicitly body image and body schema on the conceptual level, but he is more consistent than the psychological works of his time. According to him, the body schema is a foregoing condition for the possibility of perception. He calls the body schema a dynamical form, a being-in-the-world, of which we have tacit knowledge. The body schema is a kind of consciousness of the body, but no ‘positing’ consciousness, not a representation or ‘Vorstellung’. It should be considered as a set of laws rather than a set of images. In the context of developmental psychology, Merleau-Ponty tries to trace the emergence of the body schema, and the following development of a body image, a conscious sensation, in which the child notices its own body, a stage in which the body is ‘objectivated’. According to

Merleau-Ponty, the phantom limb is no phenomenon of the order of the representation. He describes for example how a subject does not seem to account for the mutilation and still thrusts his phantom limb as if it were real, since he tries to walk with his phantom limb and does not get demoralized by a fall. Gallagher and Meltzoff describe something similar: a 50 years old woman who lost her right thumb at the age of five, still tries to grasp an object as if she hadn't lost her thumb. More recent data show that phantom limbs also occur in the case of congenital absence of limbs. Alas, those studies do not make a clear difference between body image and body schema, such that there is no evidence for an innate body schema.

Therefore, Meltzoff and Gallagher searched for other elements that can show that the body schema and some primitive aspects of the body image are innate.

Body schema and invisible imitation

They have found more evidence in studies of invisible imitation, i.e. imitation of movements of others, at which those body parts are used that the infant cannot see of itself, as in the case of the imitations of facial expressions.

Such an imitation requires a body schema. More precisely, the infant needs a tactile-kinetic body schema to which it can relate the visually perceived movement of the other person. In this respect, Merleau-Ponty follows Guillaume and Piaget. Invisible imitation in early infancy is rejected for the same reasons as stated above: a developed body schema is lacking.

Yet, experiments show that invisible imitation occurs in neonates between 1 and 71 hours old. They systematically imitate the opening of the mouth and protruding the tongue. The youngest child that imitated was 42 minutes old. The same experiment was done with children between 12 and 21 days old, but during the stimulus they got a soother in their mouth to prevent co-action. In that way, the imitating responses were delayed, such that the possibility of a reflex was excluded. Moreover, the infants improved their imitation, which is also incompatible with a simple reflex. This setting of the experiment also shows that memory and representation are involved in imitation.

If we follow the line of reasoning of Merleau-Ponty and the traditional view, namely that imitation requires a developed body schema, then the research suggests that from the beginning a primitive body schema is

sufficiently developed to perform invisible imitation. Moreover, the child has to have disposal of the most primitive perceptual aspect necessary for the formation of a *body image*, namely proprioceptive sensation. The infant that is confronted with new motor activities or gestures uses its proprioceptive experience of its own unseen movements in order to copy what it sees in the face of the adult. Moreover, it uses proprioceptive sensation to control, correct and improve its operations. Thus, the infant recognizes a structural equivalence between itself and the other person. Via a 'supramodal system', i.e. a system that spans several modalities, it turns visual perception into own motor behaviour.

The conclusion must be that proprioception and perception communicate from the beginning. Imitation is based both on proprioceptive sensation (and thus on the body image) and on proprioceptive information (and thus on the body schema). What the infant sees, is translated into a proprioceptive sensation of the own relevant body parts. The proprioceptive information allows moving those body parts in such a way that the proprioceptive sensation fits with what is seen. The supramodal and intracorporeal communication thus is the basis for intercorporeal communication and is the basis for the relation of the child with others.

Merleau-Ponty was thinking that such an operation of translation between visual and proprioceptive senses is only possible around the age of six months, and therefore he postponed perception of the other until about six months. In this sense, perception of the own body would precede the recognition of the other. There would be a development from the inside out, departing from the body, such that only after the establishment of a minimal bodily equilibrium, a subject can start the perception of the world and of others. The experiments, however, show that the translation is possible from the beginning. For the same reason, i.e. because the visual and the motor system 'talk the same language', intersubjectivity is possible. There is a coupling between self and other, and this coupling is not based on a confused experience. Therefore, there never is a complete indifferenciation between self and non-self, in contrast to the claims by Merleau-Ponty and Wallon. For Gallagher and Meltzoff there is a self, a proprioceptive self, and the capacity to imitate others means that the difference between the own gestures and those of others is recognized and that there is a rudimentary differentiation between self and non-self.

Conclusions

First: at first sight, Freud seems, especially in the interpretation by Assoun, to postulate as mythical starting point a complete indifferentiation between self and non-self. Yet, in Freud the 'ego-world' is from the beginning urged to differentiate, since the narcissism is faced with feelings of unpleasure from the beginning. Freud starts from an initial disruption. For him, sensations of pleasure and unpleasure are the main constitutive element in making a distinction between self and non-self. Gallagher and Meltzoff start from an innate possibility for differentiation and actually at once from a factual differentiation. The factual differentiation makes a reality test unnecessary. Moreover, because they don't make an appeal to sensations of pleasure and unpleasure but in contrast start from a proprioceptive self that doesn't seem to be faced with that, they don't talk of disruption.

Second: Gallagher and Meltzoff start from an instance, or a system that exhibits a kind of unity: the proprioceptive self. Thus, the newborn organism has, on the basis of the proprioceptive system, already a kind of cohesion. Freud doesn't seem to recognize in the 'ego-world' such a thing as an instance that exhibits somehow a kind of cohesion, whereas there has to be a kind of instance that tries to flee from the unpleasurable stimulus. Gallagher and Meltzoff, inspired by Merleau-Ponty, could contribute here by throwing light on the instance of the proprioceptive self. It seems justifiable that Gallagher and Meltzoff put first a minimal form of organization.

Third: Moreover, in Freud, the organism appears to be minimally an instance as well, an instance which exhibits a form of unity, by which the stimuli have a certain value, a meaning which is there because the organism is a biological being. Gallagher and Meltzoff talk in much more neutral terms about sensation, because they do not start from a biological perspective. Although a proprioceptive self can logically precede an instance that can experience pleasure and unpleasure, this seems to be too neutral regarding the stimuli. The main difference between both approaches seems to lie in the value of the sensations, and not so much the issue whether both start from a non-differentiated starting point. (The question for the origin has to postulate such a thing as a logical, but not as a real starting point.)

Fourth: Gallagher and Meltzoff do start from a form of organization, but afterwards, they leave the issue of organization out of consideration. In that

regard, Freud's discourse is worthy and more complex, since he shows how organization is an issue of reorganization, and not a static datum.

A last remark concerns the role of the other. Freud, who talks about the organism as a biological being that is subject to the requirements of life, can point to the origin and the necessity of social communication. Gallagher and Meltzoff emphasize the possibility for a social relation, and discuss from that possibility the phenomenon of imitation. Freud's view is again more biological, such that he can describe the newborn as a non-indifferent being. Unpleasure is a constitutive element in the social relation and the other is an interpreting instance in the pleasure - unpleasure dynamics. The experiments described by Gallagher and Meltzoff do not present the other in that way, and they do not have that possibility because of the neutral frame from which they depart.

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Notes

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² The stimuli coming from the outside world always run against a protective shield. The 'receptive cortical layer' that receives the stimuli is provided with a protective shield against stimuli. The outermost surface of the cortical layer has become 'inorganic' and functions as a membrane resistant to stimuli, so that these pass into the next underlying layers only with a fraction of their intensity. (Cf. Freud, 1920: 27) Yet, such a protective shield is not possible from stimuli

coming from within. Nonetheless, there is a tendency to treat the inner stimuli as though they were acting from the outside, so that it may be possible to bring the shield against the stimuli into operation. (Cf. Freud, 1920: 29).

³ According to Freud, the perceptual neurons receive at each external perception a stimulation, which is discharged by those same neurons. The information of that discharge penetrates the system of neurons that receive the endogenous stimuli. It is precisely that information that receives for the system the value of an indication of reality. But the problem is not yet completely solved, since a hallucinatory experience can be that strong that it can cause the establishment of an indication of reality. Yet, according to Freud, a 'good cathexis of the ego' (an inhibition by the ego) can moderate such a wishful cathexis to the point of hallucination. Since the indication of reality occurs easily from the outside, namely at no matter which degree of intensity of the cathexis, but from within only at high degrees of intensity, the indication of reality retains its function. The distinction between hallucination and perception thus is based both on the indication of reality and on an inhibition of the ego.

⁴ Freud relates this to the origin of judgement: to judge is originally a process of association between cathexes stemming from outside and cathexes stemming from the own body, an identification between the system of neurons reached by external stimuli and internal messages of cathexes.

⁵ There can be a dissociation between the body schema and the body image. In the case of hemi-neglect, the body schema is intact, but there is no complete body image. A person with hemi-neglect, for example, fails to comb the hair on one side of the head, but does tie the shoelaces with both hands. The opposite case, an intact body image but an incomplete body schema is much more rare. Gallagher and Cole have followed a patient who had lost tactile and proprioceptive input from the neck down. He can only control his movement by cognitive intervention and visual guidance of his limbs. (cf. Gallagher and Meltzoff, 1996: 215-216)