

THE SOCIETAL SUBJECT

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THE ELEMENTS OF PSYCHOLOGY

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Activity as a unit of analysis in psychology

A recurrent theme in scientific human psychology is the problem of defining the basic "units of analysis". In this short paper I shall offer a blueprint of such a unit, or "element" in Fechner's terms.

My point of departure will be the theory of activity conceived primarily by A. N. Leontiev, and I shall make no attempt here to give an outline of this theory, but rather refer the reader to Leontiev's works (1978, 1981, 1982), to Engelsted (1989a, 1989b), Poulsen (1991), and to my own elaborations on the theory (Mammen, 1983, 1986, 1989).

In a fundamental sense "activity"¹ is the basic unit of analysis in human psychology as well as in animal psychology. It is the aim of this paper, however, to point out some minimal complexity of structure in human activity that is necessary for the analysis of specific human psychic phenomena, such as "consciousness", "sense" and "meaning".

Before picturing this complexity we must focus on the concept of activity itself. If activity is understood as mechanical interaction between pre-established subjects and objects we are missing the point, that we are talking about the activity of a subject. One way of understanding this very general and abstract statement is to conceive of activity as an act of "abstraction", as a subject abstracting or extracting an object from the infinite pre-existing matter, making part of the material world an-object-for-the-subject (Leontiev, 1982; Mammen, 1989). In the case of humans, this abstraction can be practical and be an act of selective attention, not necessarily perceptual but also an intention of thought.

Objects of activity

In this interpretation activity is basically characterized and distinguished by its object. To ask what can be objects of human activity is to ask about

¹ Russian: "deyatel'nost". German: "Tätigkeit". Danish: "Virksomhed".

what is in the world, and is as such an ontological question. But to say that anything existing in the world can be made objects of human activity, is on the other hand a postulate of the materialistic theory of knowledge which could be categorised as "practical realism" (Mammen, 1986).

Just to give examples, objects could as the one extreme be the after-image I see after staring in my lamp. In this case the object belongs to my body, but only exists for me as a subject. If others wanted to make it an object for them, they would have to go "through" me. Such objects only existing in one activity or relation ought rather be called "phenomena". Objects like "my favourite dish" or "my home" are also necessarily related to me in an activity, but could also, after being identified, be reached by others, who for instance could disagree with me on, respectively, its nutritive value or its distance from the central station. On the other extreme, objects like "Mozart's symphony no. 40" or "The planet Mars" are in no way dependent on being objects of my activity.²

Now, looking at objects that are not just phenomena, it is a characteristic of human consciousness,³ that we know that what is an object for me is not just that. It is also an (in any case potential) object for other people, and has an infinity of features or properties, that are not objects for me in this particular activity, but of which any one could be an object for another activity, for instance one mediated by the object's interaction with other objects, etc.⁴ This knowledge is not necessarily itself in the focus of consciousness, but rather in the "fringes" of consciousness. But it can be focussed on, when an object surprises us, is problematic in other ways, or just excites our curiosity.

It is characteristic for human consciousness to be open and humble towards the object's infinity and to be confident that it is possible, given the means, to know more about it, although not everything. This is true of animate as well as inanimate objects, and especially of our fellow human

² In the above examples objects are "entities". But they could as well be present or past situations or episodes, as studied by Larsen (1983), processes, states, etc.

³ When speaking of human consciousness, I am referring to the specific human cognition as the highest level in the human psyche, co-existing with other levels of psychic life, also found in the animal psyche. This is in accordance with A. N. Leontiev's definition of consciousness as specific human psychic "being". I am not exclusively referring to what is conscious in a more narrow, phenomenological sense, what we are "conscious of", i.e. what is subjectively given with a certain clarity, being accessible to verbal formulation, implying self-awareness, being "reflexive" etc. I have discussed the very intricate concept of reflexivity in earlier publications (Mammen, 1969, 1982).

In fact, as I use the concept of human consciousness here, it includes both "focal" and "fringe" consciousness, or tacit knowledge. It might also include parts of what psychoanalysis would name the unconscious.

⁴ Properties of objects may themselves be objects of human activity. So, the term "object" may appear in different senses in the paper. However, the meaning should be clear from the context.

beings as objects of our activity. This is also the basis for our capacity for reclassifying objects, as was demanded for instance in Duncker's well-known experiments on "functional fixation" (Duncker, 1935). And it is the basis for our capacity for a certain amount of simultaneous multiplicity of classifications.

It is possible for me at the same time to see the coffee-cup on my balcony-table as a coffee-cup, as an "ad hoc" paper-weight preventing my manuscript from flying over the roofs of Aarhus city, and as a physical body describable in terms of form, colour, and chemical composition. And still I know in the fringes of my consciousness, that this is just a selection of an infinity of possible properties of the cup, that it could manifest in an infinity of possible relations with other objects and with active subjects.

The natural and historical properties of objects

To make things simple, initially, let us look at that kind of objects, which are "things" with "substance" like the coffee-cup. And let us look at the properties, that are "objective" in the sense, that they are not dependent on any particular subject and his or her activity.

These properties could be the cup's weight, which is a manifestation of its mass in relation to terrestrial gravitation. It could be the cup's suitability for containing liquids, for containing soil and serving as a flowerpot, i.e. its "functionalities" in relation to other objects or substances. It could be its being "liftable" or "throwable" by normal grown-ups, i.e. what J. J. Gibson (1979) named its "affordances". And it could be its being a coffee-cup, i.e. that it among all its possible functionalities, by virtue of this particular object's history, has been constructed to serve as a coffee-cup, and in this case also has been used as such.

As is seen, these properties fall in two distinct classes. We could call them "natural" properties and "historical" properties.⁵ The weight, the functionalities and affordances are so to say natural properties of the cup. They are relational, or "contextual" in the sense, that the properties are manifested in relation to gravitation, other objects etc., but still they are independent of the history of the cup. They are products of natural or cultural history, as is everything, but the properties are what they are now, and just now. Like the Moor, history has done its job, and may go.

But the cup's being a coffee-cup is another kind of property. It is not a natural property, but a historical one. This statement would indeed be

⁵ In a discussion of this distinction, Hem (1980) used the terms "universal" versus "local" properties, applying the concepts of universal versus local perspective characteristic of natural sciences and historical sciences, respectively. This distinction is parallel to the present one, and to the distinction between what was called "sense-categories" and "selection-categories" (or "categories of choice") in Mammen (1983, 1986).

H this problematic, or even nonsense, for the reader only recognising natural properties as real properties. But what is the reason for not recognising historical properties as real? It could refer to the historical properties being "contextual". However, ~~the reference to memory, to habit~~ is not a good reason, because natural properties are also "contextual" or relational, as demonstrated above. The more fundamental reason is that the context is the cup's history, and that history, i.e. the past, is considered non-existent as an objective reality.

If history is considered as non-existent, the non-natural properties are also non-existent in the objective sense, and are just subjective "descriptions" rooted in the memory or habits of the individual subjects. And memory and habits are not history, but present products of history. Or the "descriptions" are rooted in language, in a system of "meanings" or the like.

H v However, ~~both~~ the reference to memory, to habit and to language still leaves the question unanswered, what properties manifested by the cup distinguish it as something that should be remembered or treated or named as a coffee-cup. We are left with the alternatives, that being a coffee-cup must either be a natural property after all, or it is just an idea kept in the realm of language or subjective, habitual "schemes" or the like, without objective reference. This is the traditional point of view, whether the "schemes" are called "scripts" (Abelson, 1981), "theories" (Neisser, 1976) or "Idealized Cognitive Models" (Lakoff, 1987).

In opposition to this "nominalistic" view, I claim that being a coffee-cup is an objective property belonging to the history of the cup. This has the ontological implication, that history is considered part of objective reality, and not just "passed" or "gone".⁶ That is, that events in the past can

6 When analysing mechanical phenomena in physics, all causes or conditions remote in time are seen as acting through a "chain" in time of infinitesimal, "immediate" causes. The behaviour of objects is explained from integrating differential equations describing the infinitesimal time "surroundings" of the objects. The equations have no "memory", so to say. They are "time-local". You could even say that this analytic principle of "immediacy" is defining not only the subject matter of mechanical physics but of all natural science. When, for instance, biological objects are said to have "memory", what is meant, is only that certain relatively stable inner states are strongly correlated with remote causes, not that the principle of immediacy has been violated.

The properties of objects taking part in the above mentioned natural, immediate interactions are referred to as "natural" properties. *Natural properties are associated with the object in an infinitesimal interval of time.* This does not mean that they could not be lasting or invariable properties, that they have no history, or that natural scientists are not interested in for instance the history of the universe, or the history of the species. Only that the principle of explanation of natural science is the integration of a chain of immediate causes acting between natural properties.

What is referred to as "*historical*" properties are accumulated properties associated with the "*life*" of the particular object till now. Only if the universe is considered one big clockwork following laws that in principle would let it run exactly back to its beginning if

be objects of our attentive or intentional activity and not just the remote causes of the activities, as is the case in "natural" interactions.

As human conscious beings we can make the world's historical "deep structure" an object of our activity. Not to say that we can interfere with the past, or reverse the arrow of time, but to say that we can know about, ask about, be interested in and investigate our past. When I say that my great-grandfather was a master builder, I am referring directly to this late forefather of mine, not to some present effects of his being a master builder, as for instance somebody remembering him, or the content of some left documents. The truth of my statement is not dependent of any of these effects, although they may be what I take as evidence. But it makes sense to ask if the evidence is false or misleading, even if I am not able to answer the question.

If I had a fiancée and asked her where she spent last night, I was not just interested in the possible traces left by her adventures but in what really happened. And this still holds good, even if I cannot help making my own interpretation of whatever she tells.

So "things" in the world have these two types of objective properties, the "natural" ones, and the "historical" ones, and as conscious human beings we can make both kinds of properties objects of our activities.

There is, however, a substantial difference in the way we relate to these two types of properties in our activity. When relating to the natural properties, the basic act of discriminating the object and its properties from other objects and properties, is sensory. Not necessarily just sensing and perceiving with our native sense-organs, but as modern human beings also sensing through instruments of measurement, through optical or electronic devices, through tools as extensions of our body, etc. Of course we are doing a lot more than discriminating sensory properties to understand natural properties. To see "what they are", we are using the whole bulk of knowledge of the world. But still, the basis for discriminating "what is what" is sensory. What else?

When relating to an object's historical properties, the situation is more complicated. First, we must be able to discriminate and recognize the object's natural properties. We cannot recognize the cup as a coffee-cup without being able to see or feel its form rather accurately. However this necessary condition is apparently not sufficient as a basis for discriminating

the arrow of time was reversed, should it be possible in principle to map historical properties onto natural ones. Today no competent physicist believes this (see Prigogine & Stengers, 1984). And even if it was possible, some sort of "universal" knowledge would be needed, possessed by no living subject or entity (Mammen, 1969; Sørensen, 1985).

This ontological understanding of the "historical" properties as distinct from the "natural" ones is metaphorically expressed by Leontiev (1982) as the historical properties defining an objective "fifth quasi-dimension" in the world, besides the four dimensions of space and time.

historical properties. Of course we also need a lot of "theory" to recognize historical properties. But this is not what I am referring to. What I mean is, that the objective basis for being a coffee-cup is not just natural properties. Therefore the discrimination of natural properties is not sufficient as the primary objective basis for what the theories are to discriminate in the world. The theory of coffee-cups could be very elaborate and detailed, but it cannot itself decide when it is to be applied at a concrete object, if there is no objective discriminating difference to link with the theory. So, we have a problem. What more is to be discriminated than the natural properties?

Our 'pocketing' of individual objects

My answer is, that what is to be discriminated is what philosophers call the object's "numerical identity", its "individuality", "particularity", "singularity", "uniqueness", apart from its properties. It is not the properties of an object that have a history, it is the object itself. Two objects can have the same natural properties except for insignificant differences, the one being a coffee-cup, and the other one a tea-cup, if we can believe the labels in the museum. The director would turn rather emotional, I am sure, if we interchanged the labels with the argument, that there are no significant differences between the cups.

Two pieces of flint-stone found in the field might be practically identical, the one being shaped by nature, the other one being a scraper made by a stone-age hunter. There is no sign left in the stones' natural properties of which one is the scraper. But one of them is by a continuous thread in space and time connected with the hunter, the other one is not.⁷ Perhaps this thread cannot be identified, and we shall never know which stone was the scraper. But perhaps the one was found in the hunter's grave, giving us good reasons for recognising it as a scraper.⁸ We can give a detailed description of this stone. But we cannot give a description that would exclude all other stones, of which some would not be scrapers. What makes this stone a scraper is not the description, but the continuous thread to its

7 In natural interactions, described by physics, these "threads" play no role. The physical interactions are so to say "blind" for the numerical identity of objects. What counts is the natural properties.

8 The significance of location and material context for the identification of archeological material's meaning is convincingly elaborated by Larsen (1987) in a discussion of archeology and human memory.

Archeology is not only a good example of our active investigation of the cultural world, but also serves, according to Larsen, as a useful metaphor for the "uncovering" of memory in psychoanalysis and other psychological inquiry. This interesting point of view lies beyond the scope of the present paper.

maker, which we can secure by keeping the stone under lock, not by describing it. What we "keep" in this way is not the stone's properties, but its "numerical identity" with itself. And this numerical identity is so to say our "handle" to its historical properties.

As P. F. Strawson (1964) has argued convincingly, no finite description of natural (or "universal") properties can single out an individual object from the world's infinity of objects. And as our practical sensory discriminations have the same finite "channel capacity" as our verbal descriptions, the conclusion is the same in respect of our inability to single out individual objects exclusively from sensory discriminations. If we still tried, we would be like paranoid schizophrenics who according to Mogensen (in press) engage all their energy in a futile project of ordering the world from natural properties, perhaps based on a fundamental "distrust" of the historical properties.

But why are we not all like these schizophrenics? And why are we not like lower animals who are also unable to discriminate the objects' history, but unlike the schizophrenics don't care? What is this human ability to go "beyond the senses", i.e. beyond sensory discriminations?

To understand this we must realise, that our active, practical contact with the world is not just a series of sensory discriminations. If I have two new coins, one in each hand, perhaps I am not able to discriminate them from differences in their natural properties. If, however, I put the coin in my right hand in my right pocket, and the coin in my left hand in my left pocket, I can still tell which one was in which hand without discriminating the coins, if I am only able to discriminate my pockets. The sensory discriminations are not to be viewed as isolated. They are embedded in a practice, just as they are known to be embedded in motor activity, as it has been studied under the heading of "re-afference" (von Holst & Mittelstaedt, 1950; Held, 1965; Gregory, 1966). Impairment in motor activity, for instance, dramatically disturbs sensory discrimination of movement. Correspondingly Goldstein demonstrated severe consequences in orientation following disturbances of body-image (see Merleau-Ponty, 1962).

In our practical contact with the world we so to say make and fill "pockets". If we just have unbroken lines to the "pockets", their contents can be discriminated unless somebody or something is replacing things. Usually we have some chance of telling this, or basically trusting it if we have not been cheated too much in our early career.

You could say that this "pocketing" practice with its embedded sensory discriminations is an expansion or generalisation of what J. J. Gibson (1966) would call a higher-order variable in perceptual discrimination. And as such it is itself a generalised perceptual system in Gibson's terms

and a manifestation of a human "sense", which in fact was what I called it in an earlier paper (Mammen, 1983).⁹

The "lines" to the pockets can be "chained", i.e. the pocketing-relations can be combined or "nested",¹⁰ thus defining a complicated ramified system of orientation in the world. Examples would be my possessions, my relatives, and their possessions, etc. It could be my ancestors, and their possessions, of which some may now be mine.

The orientation in this interwoven system of relations of "belonging", of lines to present objects, and "roots" to past objects, is just as automatized as is our orientation towards the world's natural properties. If, however, it becomes articulate in our experience, it is as a rule with a certain feeling, an "affection" or "sentimental" value. Perhaps this is just what we have these feelings for. There are clinical indications, that in some cases a severe disturbance in this sort of feelings is accompanied with a break-down of orientation in the world's historical "deep structure" (Mogensen, in press).

The structure of human activity. A model

To understand this system of double relations to the world, i.e. to the "natural" and the "historical", we must look a little more detailed on its structure. In figure 1 the minimal complexity in the structure of human conscious activity is outlined:

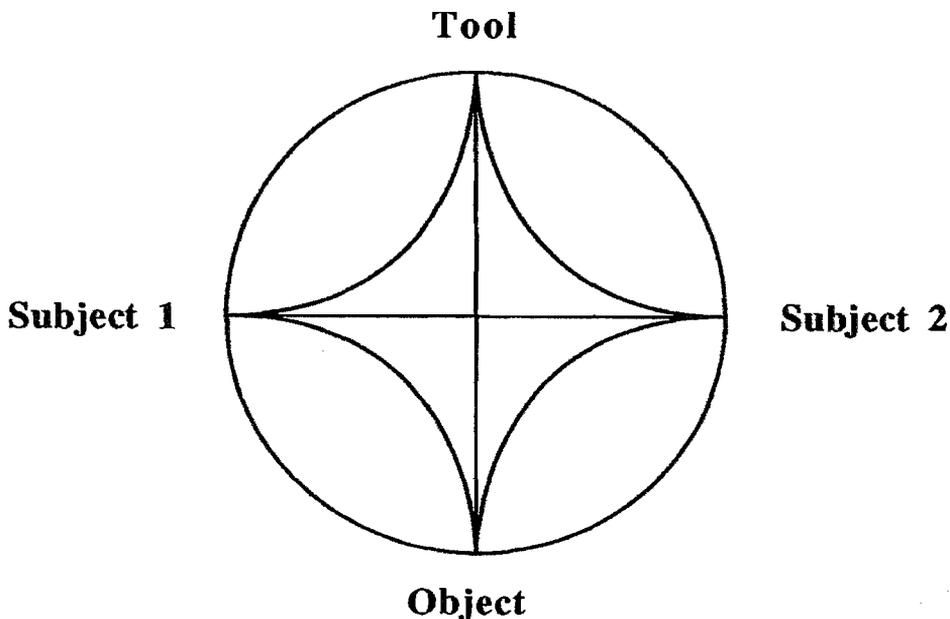


Figure 1

⁹ It can be debated if "perceptual" covers these acts of discrimination, as the memory or recollection of past episodes of activity is involved (see Larsen, 1983).

¹⁰ The relation of "pocketing" thus being a "transitive" relation: If A pockets B, and B pockets C, then A pockets C.

Figure 1 is a model of the specific human conscious activity of "Subject 1". In Leontiev's analysis of conscious activity, with human work as the paradigm example, this involves a subject engaged in an activity towards an object mediated by tools and in co-operation with other subjects. What makes this activity "conceptual" in the specific human sense is that Subject 1 in his or her activity is not just interacting but is abstracting and classifying in a specific way.

The Object (e.g. a tree) is not just recognised in its immediate appearance for the Subject, but also, at the same time, recognised in its relation to the Tool (e.g. an axe). For instance the tree is seen as too hard for the axe. The Object is also seen in relation to other Subjects. For instance the tree is seen as suitable for the carpenter but not for the boat-builder.

The Tool is at the same time seen not just in its relation to the Subject. For instance it could be rather heavy to handle. It is also seen in relation to the Object. It may be too dull for this tree. And the Tool is seen in relation to other Subjects. As it is a "standard axe", I see "in it" that it could also be used by other normal grown-up men in my community, but that it could not be handled by my little daughter.

And Subject 2, the other subjects in my community, are not just immediately appearing subjects. They are actual or potential consumers of Objects, and they are actual or potential users of Tools. The Objects and Tools mediate my relations with my fellow human beings.

You can say that the different "instances" in figure 1 are not just interacting but are also each others' yardsticks, thus producing new generalisations or "abstractions". Axes being sharp or dull wood-axes, trees being hard or soft timber, people being good or bad artisans, are examples of this.

It ought to be said, also, that the same object could in some relations be Object, in others Tool, and that even subjects can be Objects or Tools. The instances are "logical positions" for concrete objects. Also, the instances could be a plurality of objects, tools or subjects, again connected with each other, etc.

Now, let us focus on the "lines" connecting the "instances" in figure 1. The circular, peripheral line connecting the four instances should symbolise their "natural" interactions. These interactions are between the instances' natural properties and are independent of what were the historical remote causes of the instances and their properties. For instance the Object's natural properties is interacting with the Subject's sense organs.

The crucial point concerns the other six, "radial" lines, i.e. orthogonal to the peripheral line, connecting the instances. They symbolise the relations between the historical properties of the instances. What made my coffee-cup a coffee-cup was not just its natural properties and their actual or potential interactions with the table, the coffee, my hand and my lips. In addition to that, my coffee-cup should have a specific history, being produced by other Subjects (of whom I might be a special case, if I was in the

pottery-branch) who perceived this object in relation to other Subjects potentially using the cup for drinking coffee. And what made it my coffee-cup, and not anyone else's, is also a property of this singular cup's history, in this case that I received it from my daughter as a birthday present.

My relation to the coffee-cup is thus not just interactions, but a "thread" connecting me with the cup and its past, which again is connected with "threads" to the producers, the sellers, buyers, givers and receivers of the cup. And to complete the picture, for the producer, the cup also has a relation to other coffee-cups in the past, to a tradition of producing coffee-cups in our society. All this makes it a "cultural" object.

My relation to a Tool like my axe is also not just interaction. The tool is also an Object like the coffee-cup, being produced in a tradition. But it is even more than that. To be an efficient tool not just for felling one tree, but for my general knowledge of which trees are hard and which ones soft, it has to be kept or "pocketed" in a lasting relation with my body. That could be a relation of ownership. If I used a new axe every time I felled a tree I could not know if the differences in efficiency were due to variations in dullness of the axes or hardness of the trees. And I could not interpret the gradual decrease in efficiency with the same trees as a result of wear and tear, thus giving me an insight in the laws of nature, which I could not reach without this lasting connection with the axe. The axe is as a tool an extension of my body.

My relations with other Subjects are, above all, not just interactions between natural properties. What makes my children my children is not at all their natural properties, but our common history, including the fact, that they were born by my wife having specific relations with me. My feelings towards my children are not just towards their natural properties, but towards those historical properties that are just an expression of their being mine. That they in some respects are like me, is not what I love them for (see also Poulsen, in press).

In figure 1 the Tool and the Object is also connected by a "radial" line, although none of them are Subjects. Without human subjects, Objects are so to say "blind" for their own and other objects' history. The remote causes do not participate in the present interactions. But embedded in human activity the relations between objects are historical in the sense, that they play a role in and mediate historical relations to subjects. Objects and Tools can "pocket" each other and in a chain of pocketing be pocketed by us.

What is interesting about a certain tunic button in a museum show-case is neither its natural properties, nor its relation to the insignificant Subject who used it as a bullet, but the fact that it was this button which hit Charles XII of Sweden (as an Object) and killed him.¹¹

¹¹ For a short account of the dramatic history of this button and its importance for revealing, in 1940, the assassination 1718 of Charles XII by one of his own men, see Carlsen (1948).

Less exotic examples of the "pocketing" relations between Tools and Objects, or between Objects, could serve as demonstration of the coupling between natural and historical properties, and to generalise the latter beyond cultural history.

When Gregor Mendel did his far-reaching experiments on plant breeding, what was new, was not just a detailed study of the plants' natural properties, but that this study was embedded in a practice which followed the "threads" of descent of every single plant, not by recognizing its natural properties (this would be "circular", and bring nothing new), but by pocketing the plants, using their positions in the beds as a Tool. It is thought-provoking when Bronowski (1973) tells us, that what was Mendel's exceptional quality, was not his scientific training but his affection towards his plants.

The above example illustrates the implications of man's "double-relations" not only with the natural and historical properties of cultural objects, but also with other objects of labour and experimental investigation. When working with a particular stone, making it a stone-axe, the producer is both recognising the stone's numerical identity, its being identical with it-self, defining a historical "thread" by its continued pocketing relation with his body, and at the same time, with his senses, recognising the differences in its natural properties. This joint observation of identity and difference, makes it an act of recognising change or process, thus yielding insight in the laws of nature, not being accessible to passive sensory observation.

Not until the renaissance is this aspect of labour united with scientific thinking, in the scientific experiment (Lewin, 1931).

The model as a unit of analysis

After giving this short explanation of the relations in figure 1, let me go on looking at the figure as a psychological "unit of analysis". As mentioned above, the "instances" in the figure are "logical positions" to be filled in by concrete subjects and objects. Until now the examples have been concrete, substantial "things", like myself and my coffee-cup. And in a certain sense these examples are fundamental as they define the interwoven tissue of historical "threads" or "pocketing" relations functioning as the practical basis or "context" for all other less "substantial" examples. But the figure could easily be applied to the latter kind of examples too.

Let us illustrate the above point with the example of my axe as a Tool. As mentioned, my axe, besides being my special axe, was a "standard axe" in the sense, that it fitted in a standardised practice for its use by other

(continued). For a related but more peaceful example used by the German sculptor Joseph Beuys, see Hermann & Gregersen (1978, pp. 155-158)

Subjects on a range of Objects, and that it was produced by Subjects in a tradition. This is just what Leontiev means by saying that the axe has the "meaning"¹² of an axe, i.e. that it is comprised by the concept "axe". The concept is a unit connecting the meaning with the word "axe". This word is neither creating the concept nor the meaning, but it is a necessary condition for maintenance of the meaning. Or a necessary Tool for the meaning as an Object.

So the figure is applied as a unit of analysis on two levels here. First in analysing the meaning of the axe as a Tool. Then in analysing the concept "axe" with the word as a Tool for the meaning. But the analysis can go further, seeing the concepts as Tools for communication (Fog, 1986), and as Tools for each other, in the development and transmission of theory, of metaphorical reference, of ideology etc. (Bertelsen, 1988).

The figure could also be used as a unit of analysis of what Leontiev calls personal "sense".¹³ The personal sense of the axe is what it means to me besides its standard meaning as an axe. This could for instance be a feeling of affection, motivated in my relation to this particular axe's history. It could have been passed over from my father, and it could have saved my life helping me out of a burning house. So what I am relating to in this case is also the axe's "historical" properties, its past relations to other Subjects and Objects, and to myself as a Subject.

Leontiev is referring to the personal sense as "subjective", and the meaning as "objective". This is only justified in the respect, that the sense is personal, and the meaning is standard. Both sense and meaning is both subjective and objective, as it is a subject's activity abstracting certain objective relations, as depicted in figure 1.

The difference between sense and meaning is not the difference between the subjective and the objective, but is the difference between the Subject's personal life-history and its Objects, and the history of the society or the culture and its Objects. It is a difference of the small and proximal context of the Subject's individual life-history, and the large and distal context of society and history.¹⁴

Seen as such, it is apparent, that sense and meaning is not just a duality. It is rather a polarity with the smallest and the largest context for activity, and the historical properties of its objects, in each pole.

Between the poles is for instance the context of the family, of the generation, and of all kinds of sub-cultures. These contexts are embedded in each other, and are in certain respects also in conflict with each other.

12 Russian: "znachenie". German: "Bedeutung". Danish: "betydning".

13 Russian: "smysl". German: "Sinn". Danish: "mening".

14 This analysis has been further elaborated in Torben Østergaard Christensen's investigation (unpublished) of the life-world of young people attempting suicide.

This generalisation broadens the psychological implications of the analysis far beyond Leontiev's conception of conflict or non-coincidence between sense and meaning, and correspondingly between the individual and subjective on the one hand and the "societal", cultural and objective on the other hand.

To take the family as an example, the reality of a two-year-old boy in a family with parents and an older sister is not just his personal sense or the cultural meaning of objects. The objects' history in the family may be more important. The puppet on the shelf is not just nice-looking (sense) and some puppet (meaning). It is above all the older sister's property and her object of affection. This is a reality to be respected if the boy is to have good relations with his sister, and his parents. And what is to be respected is not the puppet's natural properties, it is a reality beyond these. The little boy has to learn that whether he finds the puppet attractive or not, new and shiny or worn and ragged, doesn't matter. He must learn to be open and humble towards objects, realizing that they may be much more than is immediately seen. On the other hand, to learn this, requires that he can trust the sister and, above all, the parents when they mediate this reality to the boy. So, humbleness, openness and faithfulness are not only ethical or "motivational" concepts, but epistemic ones as well.¹⁵

When appropriating the meaning of Tools and Objects in his world, aided by grown-ups and peers, the child not only learns what they are and how they are used in the relevant context, but also what they demand and how they should be used. The meaning is both descriptive and normative.¹⁶ And after having appropriated the meanings, his acts towards Tools and Objects in many cases need no explanation for himself or his relatives. To ask what was your motive answering the phone, or calling the fire-alarm when your neighbour's house was burning, usually makes no sense, while it might require some motivational explanation if you did not.¹⁷ No individual "motives" are needed for every conscious act except in psychology books.

To conclude: One advantage of using the same basic "unit of analysis" in all these different cases, is that some of the traditional distinctions between cognitive and "motivational" psychology, or psychology of personality, vanish.

The development of early object-relations, as studied by psychoanalysis, the development of interests in adolescence, and scientific activity as an

¹⁵ For another, more elaborate example, see Bertelsen & Hem (1987, pp. 402f).

¹⁶ This has been stressed by Chris Sinha (1988) in his discussion of the concept of 'canonicity'.

¹⁷ Poulsen (1991, p. 101) makes this point clear. The perception of the demand character of meanings in the different large-scale and small-scale contexts of life also appears to unite what Katzenelson (1985) calls the in-side and out-side of morality.

attempt to reveal "deep" structures in the world, are variations of the same theme, and all incorporate the basic structure of human conscious activity.

To understand these different phenomena and their diversity within the same general dimensions will be a step in the direction of making psychology a "Galilean" science in the terms of Lewin (1931).

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