

Old Patterns, New Bewitchments

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Recent inventions in communications technology have given rise to several changes in the framework of everyday activities. These changes herald an imminent transformation in the institutional framework, too. In the present paper, I'd like to focus on the conceptual background of some obstacles which slow this transformation down. Learning in the context of mobile communication (m-learning), a recent and growing research field, provides a good example of the decisive influence of old patterns while at the same time it emphasizes the possibilities opened up by new communications technology. This perspective offers a good opportunity to connect philosophical considerations, especially Wittgenstein's, to practical issues, and it also facilitates seeing Wittgenstein's efforts as a criticism of these hindering patterns. Some of Wittgenstein's more opaque objections can today be better understood in the light of recent cognitive science.

1. New conditions, old institutions

Education forms an important segment of social life and at the same time mirrors the dominant views on knowledge and the general order of things. John Dewey called attention to exactly those traditional dualisms which create the background of education and emphasized the importance of an awareness of these mostly non-reflected presuppositions. Even though Dewey outlined his view at the start of the 20th century, the situation has not really changed.

There is a deep interrelatedness between Dewey's criticism and changes in communications technology. As Kristóf Nyíri puts the matter: "it was the rise of *literacy* that made formal schooling inevitable" (Nyíri 2002, 122); at the time when Dewey's criticism was formulated, the outlines of the shift to the age of *secondary orality* were emerging. According to Walter J. Ong, the institutional and also the cognitive framework changed as a consequence of the invention of alphabetical writing. Alphabetical writing is a very effective means of storage; however, there is no supporting environment or unity of references that facilitate understanding. As a new kind of storage system with built-in barriers, alphabetical writing, as compared to orality, created new habits in the thought process. General subjects, abstract concepts detached from the human life-world, and linearly-structured arguments emerged.¹ The cohesive power of live intercourse and its multimodal contexts remain an important factor in everyday life, but the conceptual and institutional frameworks have gradually been altered by the requirements of silent texts. In the age of secondary orality, there are other mediators of experience and ideas beside texts. The emergence of different recording technologies and systems for communicating over distance gradually allowed, once more, more direct access to others' experiences. Accordingly, the pressure of verbal formulation decreased, and mediated communication gradually became closer to live intercourse.

Recently, we can see that the traditional differentiations of work and spare-time, the public and private sphere, learning and post-learning, workplace and home, theory and practice, etc. seem to have disappeared from

our everyday routine. Teleworking, lifelong learning, and the continuous rescheduling of tasks are now part of everyday activities. These changes indicate an overall transformation in the social, institutional, and even cognitive framework. However, if we cast a glance at researchers in the field of education, we find that they mostly move within the traditional framework both in a conceptual and an institutional sense. That is, they mostly try to tame new technology to fit into the institutional setting, divesting it of its original use. Of course, there are efforts to incorporate everyday practice, such as introducing more fieldwork and teamwork, and utilizing multimodal means to help the learner, but the gap between school and everyday life (in contrast to the above-mentioned tendencies) seems to have been maintained.

Subsequently, I will focus on the roots of this state of affairs. I rely on Dewey's considerations and relate them to Wittgenstein's famous phrase: "Philosophy is a battle against the bewitchment of our intelligence by means of language". (Wittgenstein 1963, 109)

2. Old patterns and looking for new ways

I suggest examining the above phrase as one which errs to some extent, and at the same time is deeply correct. At first sight the objection arises that it is not language, but our view of language, that is responsible for the bewitchment. However, considering recent studies in the realm of cognitive psychology, it becomes clear that some characteristics of language, especially the circumstances of literacy, indeed make it capable of leading us astray as regards our views on the nature of language.

These characteristics of language become especially visible if we compare the cognitive processing of verbal and pictorial representations. According to Allan Paivio's dual coding approach, imagery and verbal expression are parallel processes, but some important differences between them are discernable. As Paivio puts it,

"verbal descriptions of concrete situations and events from memory and verbal expressions of the manipulation of spatial concepts are likely to be mediated efficiently by non-verbal imagery, whereas abstract discourse and verbal expressions of abstract reasoning are more likely to be mediated entirely by the verbal system. A second (less obvious) implication is that the verbal behavior mediated by imagery is likely to be more flexible and creative than that mediated by the verbal symbolic system. This follows from the theoretical assumption that the spatially and operationally parallel image system is not characterized by logical sequential constraints to the same degree as the verbal symbolic system". (Paivio, 434/5)

In Jacob and Jeannerod's representational theory of visual mind, neither of the two kinds of visual representations (visual percepts and visuomotor representations) have conceptual content, yet both of them can serve as the basis for or be subject to conceptual processing. The visual system provides many kinds of information all at once. These data are important either for acting on an object or for defining objects' relations to each other, and it is possible to recall them. During the conceptual transformation,

¹ See Ong 1982, especially pp. 31-57ff. and 103-112ff

we lose some details, resulting in an increase in the unambiguity of verbal expression and in accordance with our priorities.

“Now once the visual percept has been turned into a thought by a process involving a selective elimination of information, further conceptual processing can yield a still more complex thought involving, not a two-place relation between pairs of objects, but a three-place relation between a pair of objects and an egocentric perspective.” (Jacob and Jeannerod 2004, 31)

Visuomotor representations are egocentric, but in a strictly functional sense: the spatial reference is the actor’s body. In the case of verbal or conceptual transformation, an egocentric perspective means a reflexive relation in accordance with some general goals. According to Michael Tomasello:

“As perspectively based cognitive representations, then, linguistic symbols are based not on the recording of direct sensory or motor experiences, as are the cognitive representations of other animal species and human infants, but rather on the ways individuals choose to construe things out of a number of other ways they might have construed them, as embodied in the other available linguistic symbols that they might have chosen, but did not.” (Tomasello, 9)

This entails a certain distance from the surrounding world. To express something verbally means, at the same time, to reorder its elements in accordance with certain priorities. This unique feature of linguistic symbols exists because the socially embedded user has the intention of influencing his/her communicational partners according to his/her priorities.² This distanced attitude does not characterise other kinds of mental representations.

Summing up these characteristics, we can claim that verbal expression (compared to other kinds of representation) strengthens the impression that thinking is a process bound to the individual related to any kind of bodily activity only as far as certain goals which are anchored in practice serve as the basis of it. Literacy and its institutions (like silent reading, libraries, school discipline, etc.) intensify this impression and lead to the conviction that intellectual engagements are solely activities separated from practice. Dewey recognized that the customary role of education is based on traditional dualisms (such as matter vs. method, intellect vs. emotion, activity vs. passivity, particular vs. universal, empirical vs. higher rational knowing, etc.), with the focus only on one of these pairs at a time. “All of these separations culminate in one between knowing and doing, theory and practice, between mind as the end and spirit of action and the body as its organ and means.” (Dewey, 346) This comprehension of human activity is one of the most influential ideas of the literate mind. Criticism of this dualistic attitude became very active in 20th century philosophy. Dewey himself offers a different view relying on the findings of physiology and psychology; he suggests replacing the old dualism of body and soul with that of brain and the rest of the body, and to further regard it as a whole where “brain is the machinery for a constant reorganizing of activity”. (Dewey, 346)

“There are the sounds of the words, and all sorts of bodily sensations connected with gesture and intonation. Where we are liable to go wrong is in supposing that sensations connected with words are somehow ‘in the mind’.” (Wittgenstein 1979, 114)

Wittgenstein claims that this kind of error is, to some extent, related to language. However, some of his remarks suggest that the language that we use is optimal because we gain the most appropriate descriptions through it. His remarks on understanding, ideas, the use of symbols and rules lead to the statement: “What we are apt to confuse is the idea as a state of mind occurring at a particular time and the use we make of that idea.” (Wittgenstein 1979, 87)³ It is as if Wittgenstein believed that we are inclined to emphasize the thing-like/substantive and static character of a given phenomena, whereas the active component of the state of affairs is concealed. He claims that “[o]ne of the chief troubles is that we take a substantive to correspond to a thing. Ordinary grammar does not forbid our using a substantive as though it stood for a physical body.” (Wittgenstein 1979, 31/2) And accordingly, it is easy to mix up the rules we use, i.e. we are inclined to forget that not all substantives are things. However, as he suggests, we “desire to point to something”. This touches upon the metaphoric nature of language, or more precisely, that of our thought. As Lakoff formulates it, “the locus of metaphor is not in language at all, but in the way we conceptualize one mental domain in terms of another. ... [M]etaphor (that is, cross-domain mapping) is absolutely central to ordinary natural language semantics”. (Lakoff, 2003) The cognitive approach to metaphors clearly points out that even abstract concepts (such as time, states, change, causation, etc.) have their roots in everyday activity.

Wittgenstein’s tentative suggestions regarding prejudices in relation to the nature of language have been corroborated, since there is empirical and theoretical evidence by which we can argue for them, at least from a cognitive point of view. Paivio notes that Berlyne “accepts the usefulness of words as situational (that is labeling) responses, rather surprisingly argues that verbal processes are deficient in their capacity to represent transformations”. (Paivio 31) This is a disputable question for Paivio because he finds it difficult to prove that the motor component is more intrinsic to images. I believe that the representational theory of visual mind yields a clarifying distinction: the distinction between visual percept which “serves as input to higher human cognitive processes, including memory, categorization, conceptual thought and reasoning” and visuomotor representation which “is at the service of human action”. (Jacob and Jeannerod 2004, 45) Both can be at the service of action, but acting upon the world without visuomotor representation is at the very least impaired and cumbersome, whereas conceptual processing of visually-gained information doesn’t necessarily need a visuomotor supplement. That is, *visuality/imagery* is closer to action than conceptual processing. At a primary level, the relationship between them is without mediation. This, of course, does not mean that verbally processed and stored information has no role in acting, it just draws attention to the notion that there is a difference in grade.

3. Conclusion

As we can see, some of the difficulties Wittgenstein touched upon have continued to surface in a considerable body of recent research (in cognitive and developmental psychology, as well as in the contemporary theory of metaphors). Although these difficulties were encountered somewhat prior to Wittgenstein (Bergson, James, and Dewey come to mind), the earlier findings didn’t have the impact on philosophical thinking that they deserved. The exceptional contributions of Bergson and Dewey originate

² For the importance of social embeddedness, see Robin Dunbar’s theory of “social intelligence” and Merlin Donald’s reconstruction of cognitive evolution.

³ See also: “The phrase ‘in the mind’ has caused more confusion than almost any other in philosophy.” (Wittgenstein 1979, 114)

from their specific interests: Bergson studied the scientific results of his time, while education, a practical issue, was one of Dewey's chief concerns. This deeper embeddedness in practical and scientific problems could help distance us from the dominant paradigm of verbal expression. As Wittgenstein indicates, the dominance of verbal expression can indeed distort experience to some extent. Recently, means have become available to mediate experience and thought not only verbally, but multi-modally; that which is mediated is close to, or even identical with, experience. We are no longer as much at the mercy of verbal expression as we were. Accordingly, past theoretical considerations can be examined in a new light. The feeling of mental discomfort can be interpreted as the awareness of certain dissonances which originate from the chasm between experience on the one hand, and theories that describe reality on the other. Even though "Wittgenstein's later work can be usefully interpreted as a philosophy of post-literacy", (Nyíri 2005, 352)⁴ Wittgenstein lacked the proper tools, within the framework of the traditionally elaborated conceptual network of literacy, to grasp the relevant new experiences.

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⁴ For more details see Nyíri 1997.