

# Pedagogy, Heidegger and Words

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## Abstract

Aiming at improving the pedagogic encounter, I look into some aspects of the philosophy of language mainly in Martin Heidegger. I try to go beyond some of the more trivial views in the pedagogic theory, like stating that we should draw on students previous experiences and concepts, when introducing new ones. Specially underlined two Heideggerian insights: though the word is not the thing, nevertheless that same word is the house of being.

**Key-Words:** Pedagogy; Philosophy of Education; Language.

## 1 Language and complexity

'This and that ... for Dummies', or 'The Complete Idiot's Guide... to this and that', are examples of highly successful titles by important publishing houses, that most of us came to be acquainted with. As said in marketing, it seems they found a market niche. Judging for their success, perhaps we can correct this by saying they found a wide or huge market gap. At first, it looks like the readers in general, are the 'dummies' or 'idiots'. However, some of these editors write very plainly, addressing their clients - 'You're no idiot, of course'. If not the readers, then who are the dummies? Who are the dummies, in this all story, and why?

Why are those questions, important ones, for us teachers? It seems that those publishing houses found out that it would be worthwhile to make a serious effort, to improve the pedagogic quality of these books. As with speech, books content is conveyed, mainly, through words. From a broad perspective, one can even say that a language encompasses not only words but also many other symbols and gestures, to communicate ideas. What I am proposing to you here, is an attempt of a partial answer to those questions by focusing on the importance and complexities of language, by drawing in some insights of the philosophy of language, namely in Martin Heidegger. My argument is that, engineering instruction or any other sort of pedagogic encounter and the philosophy of education involved in it may greatly benefit from such insights.

Language, our prominent pedagogic tool, is said to be the most complex thing that was ever invented. It is convenient to look immediately at some examples of this. Being myself a non-natural English speaker, I am convinced that I will never dominate properly this language. It is said that Heidegger himself, was suspicious of translations, no matter

how rigorous they could be. I feel that English poetry and, sadly, English stand up comedy, are extensively beyond my reach. These are in most part, complex and subtle languages games. It is like when sometimes to say 'yes', we say 'no', and vice versa. Literally, any word can assume any meaning. As we know, computers and their software are front-runners in dealing with intricate mathematics and number crushing. However, if you want to take a good laugh, just use some sort of software to automatically translate poetry.

It is also convenient to say something about the contour of the concept of complexity that I am using in here. Usually, as a start, it is interesting to look at the origin of the word and its meaning. It was said to be complex, something that was knitted in such an intricate way that we can describe it only in part. That is to say, it is not possible to describe the whole thing. Now, contrast the ideas of easy versus difficult, with the ones of simple versus complex. One may say that climbing a hill may be difficult, requiring walking all day and good physical fitness. However, providing proper footwear, a map to plan the route, some water and sandwiches, we may regard the task as simple. We tend to avoid the word complex in this sort of situation, because it seems that we can reasonably describe such hill climbing, for our purpose. It may be difficult but it is not complex. Similarly, mathematics for engineers, already fully described in books, may be considered difficult like mountain climbing, because it makes you sweat a lot. However, similarly, such mathematics must fall outside of the concept of complexity, as we are defining it here, and should be regarded as simple - difficult, but simple.

By contrast, consider the political problems between the state of Israel and the Palestinians. This dispute has been going on for decades resisting countless attempts of the most committed and highly skilled mediators. It involves the populations of a few neighborhoods of London. Easily we can see that reached an agreement, foreign aid would immediately give way to greater levels of prosperity of the all region and populations. Nevertheless, the problem is sitting in there beating a diamond's hardness. It is a difficult problem. Nevertheless, can we use the word simple this time, or we tend to use the word complex, when we refer ourselves to the situation? Can anyone claim to fully describe what is going in there? If so, that would imply a greater possibility of finding a solution, is it not? Perhaps you can agree that no one can do such a thing, and the situation is one where we are justified in calling it a complex one. It is a situation that seems to be beyond full description and maybe, beyond the reasonable.

It is in such context of complexity that I look first what seems to be something obvious, the idea that the word is not the thing. However, this is counteracted by the fact that the word is the house of being. That is to say, without words we have nothing, which makes this all thing rather interesting. Being deeply unaware of these two relevant facts, I claim, is one of the important factors that may render teachers less effective, from the pedagogic point of view. This may bring a lot of distress too countless students. Next, I look briefly into those two aspects of language, illustrating with a few examples.

## **2 The word and the thing**

Words and language are very powerful in moulding my thoughts and my vision of the world. Heidegger (1982: 60-1) remarks that the word being different from the thing nevertheless establishes the relation with it and states: 'Language is the house of being'. Such a relationship is so overwhelmingly inescapable that he adds to this: 'Nothing is where the word is lacking'. This does not mean that we deny the possibility of existence of things about which we are unaware. Nevertheless, within this more deep ignorance we cannot even ask questions. It is to point to this

fact that someone says: 'If you do not know why do you ask?' (João dos Santos: 1989): We cannot ask questions about what we totally and completely ignore. If we ask questions, we do it about something and thus we are aware, in some way, about that something. However, true ignorance is beyond this.

Words are indispensable for me to tell any story. In many different and complex ways they interfere with that perception of the world as if they are some sort of blinder blown with the wind. This is the wind of discourse. For Bertrand Russell and Wittgenstein, '... the relationship between language and reality, or words and the world became a crucial issue' (Harris, 1998: 2). Philosophers in the analytic tradition made such a relation the focus of their attention. On the other hand Popper enhanced the importance of social context and that: 'Linguistic precision is a phantom because there are few if any, universal, essential meanings' (Guilroy, 1982: 69). Perhaps is in these lines that the physicist Enrico Fermi (1997: x) warns us that explanations in classical thermodynamics must be expanded 'at least to a rough kinetic interpretation', requiring statistical thermodynamics, if we want 'to see in detail how things really work'. We can here think about concepts expressed by 'distant' words like entropy.

Interesting is to note important points of agreement: 'A word is, logically considered, a conventional sign; psychological considered, it is a sign whose meaning is established by usage or custom or association' (Popper, 1988: 18). Consequently Popper assigns the meaning of the word to its use in a certain social context. Wittgenstein opens his Philosophical Investigations with the criticism of straightforwardness in Augustin conception of language for which the meaning of a word is simply the object for which it stands. And he establishes that the 'meaning of a word is its use in the language' through complex 'language games' (Wittgenstein, 2000 1,7, 43).

Paul Hirst explaining the nature of such 'language games' remarks: 'Meaning is not a matter of words being pragmatically useful to achieve ends we could obtain in other ways, as in, say, the exercise of physical force. It is rather doing things like commanding, praying, making statements, singing catches, asking questions, i.e. doing things, by the rule governed use of noises or marks which, used in particular contexts, enables us to achieve what otherwise could not occur (Hirst, 1974: 157). We have therefore the establishment of meaning of a language in the way that it is used in a certain social context. 'But how many kinds of sentences are there?' asks Wittgenstein. And he answers: 'There are countless kinds: countless different kinds of use or what we call "symbols", "words", "sentences". And this multiplicity is not something fixed, given once for all; but new types of language, new language-games, as we may say, come into existence, and others become obsolete and get forgotten' (Wittgenstein, 2000: 23). Also some language-games take place using precise rules, but others are more 'loose structures' (Sluga, 1996: 19). And the same author notes also the Wittgensteinian view that: '... words of our language have meaning only in so far as there exists public criteria for their correct use. As a consequence, he argued, there cannot be 'a completely private language...' (Ibid.21).

McIntyre (1999: 43-4), producing a critique of some of Heidegger's views about animals – in particular the example of a lizard - remarks the following: in contrast with a rock that is altogether 'without world', 'the lizard lying on the rock may have some awareness of the rock, but not as a rock'. (Ibid.43-4). However, what it seems to me relevant here is the following: without the word 'rock' and a language, the lizard - however impoverished in its view of the world and the kind of perception that it has of the rock - will be not deceived by them. The lizard cannot be mistaken by metaphors and symbols or other language games around which it seems humans may frequently create important and collective illusions. To us the infinite complexities of language games can be of enormous help. However, perhaps a short tour around our experience as school attendants may provide

clear examples of how such complexities can separate us from the things in the world that we attempt to describe.

### **3 Language and the pedagogic encounter**

I think there are good reasons to believe that the way mathematics and music are often taught in schools can easily show paradigmatic examples of the dangers of language and its use. We could choose other subjects, but these seem to do the job easily.

Let's consider first a possible (frequent) sentence in a theory of music beginner's class. The teacher may explain: 'the major scale in C (or Do) - as any other scale - is part of the complete alphabet of notes, which is the chromatic scale'. We can start to analyze the sentence by the word 'scale' that originates from the Latin 'scala' and means stair. Certainly among sounds there is no stair at all. The metaphor is used to attempt to show in a more concrete (or 'visible') way the fact that there is a regular difference, according to a certain pattern, between the pitches of the set of sounds from which we can compose and play music familiar and agreeable to our ears, in the western tradition. And the pitches of sounds, relate to the frequency of vibrations characteristic of sound waves.

As for the word 'major', it stands in opposition to 'minor' (scale) meaning that the pattern of pitches between certain notes is different from the pattern characteristic of a so-called minor scale. In physical and acoustic terms, we can say that the difference in the number of vibrations (frequency) of some of the more characteristic sounds of the scale is higher than the other one. When looking at, for example, two buildings that I perceive with my eyes, I can say that one is bigger than the other one. However, can I say that about sounds that I can only hear? It seems that one cannot do so, because there are no bigger (major) or minor sounds that we can see. As for the Do or C (depending on the continental or Anglo-Saxon tradition), I certainly never came across one in the corridor or under the table, as it may happen with a cat. Again, it is just the conventional designation of a sound with a particular number of vibrations per unit of time. Such an entity as a Do or C simply does not exist, in the world of things. Such a world of things, we may oppose here with a world of concepts.

In order to make these matters more interestingly unclear, illogic and unrealistic, musical theory and music teachers can add to this that there is also a Do or C, but this time an octave above. Very seriously, they demonstrate that by playing it in their instrument. We perceive a sound that in fact has nothing to do with the previous one of which they say: 'It is again a Do (C), but an octave above the previous one'. The second sound has a relation with the first one only in the fact that it has approximately the double of vibrations. I do not know if any one has ever seen the number of vibrations of the sounds when attending a music concert. I certainly have not and in any case if it were with a big symphony orchestra it would be an indescribable visible chaos.

Finally, on the chromatic scale, there is an obvious analogy with colours, again in a dramatic attempt to make, metaphorically, visible the not seen. If I want to paint my room, I can go to the hardware shop and look at the colours catalogue, usually presented in many tones around the fundamental ones (and identified by numbers). By the way, the word tone is also used metaphorically in music, usually, without any warning or careful explanation given to the student. Like other words, it might simply sneak into the discourse and then ... everyone will get used to it. Theory of music in despair by dealing with the abstraction of sounds intends only to show the available catalogue of such sounds. Of course, no one can see colours in there. Nevertheless, all these words can be

introduced without a careful harnessing of metaphorical and literal meanings, to their use in a certain context.

Mathematics, also a 'highly respected' subject in school and society, has an endless vocation and tradition in being used as an instrument of proof that apart from the 'brilliant' ones, students are either somehow stupid or they simply do not study enough. Let me first introduce a simple example involving this time a graphic symbol instead of words<sup>1</sup>. Please note that a graphic symbol may be a much less powerful symbol than a word. Everyone uses proficiently the very common symbol of percentage (%). What I found out is that, in spite of having sat in many mathematics classes, most people cannot easily answer the question: 'Why does the symbol look the way it does?' People in general operate correctly with the symbol and easily do their calculations of five or ten percent or whatever, of something. This is not the point. The point is, they use the symbol (%) in a mechanical way. That is, they do not know to explain why the symbol looks the way it does, do you? Try it. I am sure you have sat in those classes for thousands of hours, you operate with percentages and you certainly even made it through many tests and exams on the subject.

A colleague of mine pointed out to me that of course, we use a lot of words and symbols in an unconscious mechanical way, and I agree. The issue here is not this fact. The issue is that without a very careful introduction of important words (concepts) and symbols, we risk ending up with a very impoverished pedagogy. I am not advocating that the teacher arriving to class and saying 'good morning', it has to embark on the adventure of explaining what are 'good' and what is 'morning'. He could end up with a long and impossible task. However, you might say that talking about a careful introduction of new concepts is nothing but a triviality. Everyone knows about it, but do they? Are you one of those that easily can explain why the percentage symbol looks the way it looks (%)? What is then a careful introduction of a word or a symbol, for pedagogic purposes?

Several times I have introduced new words and symbols, using the following strategy: I start by not mentioning the new words. What I introduce first is the explanation of the things for which those words (names) stand for, using words that are known already by the students. That is, in order to refer myself to what would usually take just a word, I might have to go several times through several sentences. Immediately next I ask the students to do some calculations using the knowledge they have just acquired. Usually I can obtain good results. Next, I introduce the words (names) for the concepts that they have just acquired. After this, I take about a quarter of an hour or so talking on the subject and using only the new names. This makes it a much more easy and comfortable discourse, for me. Immediately next I ask the students to solve the same problem with similar calculations but I word it using only the new names. I change the data and the details of the context by telling a slightly different story.

The interesting result is that the success rate can drop immediately. That is to say, the words interposed themselves between the thing and the correct perception of that thing by students, acting as a curtain. This is the way to make everything more difficult. Maybe sometimes not very consciously, teachers know how easily they can fail students when they want to. This is where 'inflated egos' step in and these teachers become specialists in these tricks and silly games. Infatuated talk as we know can be just a strategy for pseudo-erudite show off, but it can be highly effective in achieving its purposes.

If you search around the great internet about the shape of the percentage symbol (%), you may find something close to the following story. Probably with increase of trade and

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<sup>1</sup> For many interesting views on this, from a philosophy of education perspective see: bramall, S. N. & White, J. (2000) Why learn maths?, London, Institute of Education University of London.

things like trade discounts, the use of the fraction one over one hundred became more frequent in accounting offices. In those days, accountancy and commercial transactions recording, was manual and time consuming. For reasons of convenience in writing, the horizontal line of the fraction started to be written with an inclination, the zeros of the number one hundred assumed opposite positions close to the line and the number one was simply dropped. Finally, the whole symbol started to be presented in more reduced and therefore suitable dimensions. That is, instead of writing for example  $2 \times 1/100$ , we just have to write comfortably, 2%. You might perhaps agree that now our knowledge and understanding of the percentage symbol is enriched. Being so, maybe our degree of enjoyment in using it is enhanced. Maybe all those millions of connections in our brain are now facilitated when we engage with percentages. What do you think?<sup>2</sup>

#### 4 “Transforming us”

With the purpose of removing preconceptions and favourably preparing the reader, in a way warning him that he is not a dummy, McMahon (2006: xii) states that ‘relativity looks much harder than it is’. With a similar mood, Holzner (2006:14) points to the crucial point of looking at the ‘thing’ and not only at some sort of its representation, by mentioning physics Nobel Prize winner Richard Feynman concern to attach ‘the problem at hand to a real scenario, creating a mental image, while others got caught in the math’. However, as philosophers underline, we must go beyond the trivial pedagogic discourse and didactic tools. There is a lot more in here.

As put so well by Martin Heidegger (1982: 58-89) in his ‘On the Way to Language’, the main thing is for us to undergo ‘an experience with language’. However, this is not a mere intellectual endeavour. Such experience should lead to an insight that ‘will touch the innermost nexus of our existence’ and ‘transform us’. In such experience, we should see not only intellectually that: the word is not a thing, but the word is nevertheless a powerful thing in itself. The word is the house of being and no thing is where the word is lacking. It is crucial to point to the relation of word and thing, which holds the thing. These and some other developments found in the same source is what I think would constitute a valuable experience for us all. Pedagogically, undergoing such a careful experience within teacher training courses would be surely most valuable.

Finally, in confidence, let me attempt a short direct answer to the question ‘who are the dummies?’ which was formulated around some of the complexities involving the pedagogic encounter. I do not know about you, but speaking for myself when looking backwards to my long career as a teacher, trying to maintain a conversation with engineering students, I must confess that I can find myself several times as being a dummy. Between the error, which due to its unavoidability can be noble by grounding us to our humble human condition, and the infatuated discourse to expand the little precious ego, I have experienced them all. Thus, I learned not to aim for perfection, but only to a more deep feeling of some of the complexities of language. Then, quietly concluding, I just hope for a sincere and therefore non-volitional effort, in reaching out to students.

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<sup>2</sup> For a short but insightful view on the reasons why mathematics may be in fact a difficult subject to teach and learn see, p. 131, Gowers, T. (2002) *Mathematics - A Very Short Introduction*, Oxford, Oxford University Press.

## 5 References

- Bramall, s. N. & White, j. (2000) Why learn maths?, London, Institute of Education University of London.
- Fermi, E. (1997) Thermodynamics, New York, Dover.
- Gowers, T. (2002) Mathematics - A Very Short Introduction, Oxford, Oxford University Press.
- Guilroy, P. (1982) The Revolution in English Philosophy and Philosophy of Education. In Hirst , P. H. & Patricia, W. (Eds.) Philosophy of Education - Major Themes in the Analytic Tradition. London, Routledge.
- Harris (1998) Peters on Schooling. In Hirst, P. & White, P. (Eds.) Philosophy of Education - Major Themes in the Analitic Tradition. London, Routledge.
- Heidegger, M. (1982) On the Way to Language, New York, Harper Collins Publishers.
- Hirst, P. H. (1974) Knowledge and the Curriculum, London, Routledge & Kegan Paul.
- Holzner, S. (2006) Physics for Dummies, Indianapolis, Willey Publishing Inc.
- Mcintyre, A. (1999) Dependent Rational Animals: Why Human Beings Need the Virtues, London, Duckworth.
- Mcmahon, D. (2006) Relativity DeMystiFied, New York, McGrawHill.
- Popper, K. R. (1988) Conjectures and Refutations, The Growth of Scientific Knowledge, London, Routledge.
- Santos, J. d. (1989). Se Nao Sabe Porque E que Pergunta? Lisboa: Assirio & Alvim
- Sluga, H. (1996) Ludwig Wittgenstein: Life and work. An introduction. In Sluga, H. & Stern, D. G. (Eds.) The Cambridge Companion to Wittgenstein. Cambridge, Cambridge University Press.
- Wittgenstein, L. (2000) Philosophical Investigations, Oxford, Blackwell.