Problems with Some Concepts of Language in Research of Learning

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Abstract
This paper critically examines some versions of a concept of language often used in theories about learning. We will call notions of this type “the systemic idea of language”, and argue that they are more relevant for linguistics than for theories of learning. We believe, furthermore, that these theories tend to confuse the vocabulary of a language with its meaning or conceptual content. This will lead to discussions that are restricted to investigations about expressions in language, rather than an analysis of how we understand the content of language. The systemic idea of language will also miss the role of language as a tool for conceptualisations of our experience.

Key Words: Language, meaning, concepts, vocabulary, calculus, intentional-expressive approach, phenomenography, Bakhtin, Vygotsky, socio-cultural theories, explanation, conceptualisation, understanding, language use, language as a tool, discourse.

Introduction
Language plays a crucial role in understanding and learning. We use language to conceptualise our experience of the world and to communicate with other human beings. Several different theories have thus been developed about language, how it works and what function it has in learning. Although these diverse views are based on quite different approaches, there are often a number of commonly accepted, but problematic basic presuppositions involved, which make up the foundation of these theories of learning. We are therefore going to take a look at a few widespread ideas about language and the role such ideas play in a number of socio-cultural theories of learning, since these theories attribute a central and crucial role to language in explaining problems relating to
understanding in learning. This motivates a closer investigation of the concept of language that is used in socio-cultural theories, and how the relation between expressions, meanings and understanding is handled.

We are going to start the investigation with a discussion of some common concepts of language, where language is regarded as a system of expressions, and certain of the implications these views have. This approach is contrasted with an idea of language that has its base in some ideas of the late Wittgenstein and in the phenomenological tradition. A number of ideas about language put forward by Bakhtin and Vygotsky are then discussed, from the perspective of how these ideas are used in socio-cultural theories. We will argue that several ideas in socio-cultural theories are based upon a view of language as a system of expressions, and not, as is often claimed, upon its use. Finally, the socio-cultural view of language as a tool for communication is compared to a view of language as a tool for the conceptualisation of our experience, needed to make communication possible.

1.1 Some common concepts of language
The first idea about language that we propose to discuss is a general and very commonly held conception. This approach, which we will here call a “systemic” view, sees language as a system consisting of a lexicon and a grammar. Language is here a set of words, and a grammar regulates how these words can be meaningfully combined and altered. This view underlies the ordinary school grammar that most people are familiar with since their youth. It is also used in everyday descriptions of language, as when we say that two different languages, for example English and German, come from two different countries. This view of language frequently appears in the philosophy of language, and in several theories in linguistics. In formal semantics, for instance, language is based upon ideas about how rules regulate how expressions can be combined into sentences according to formal structures. And in linguistics, the view is represented by Chomsky’s generative grammar, where language is supposed to consist of words, and rules for the use of these words. Words are classified into categories, such as nouns or verbs. There are then rules for how these words may be combined into meaningful sentences. In Chomsky’s theories,
grammar has the function of being the rules that regulate the use of words and give language a structure.

The systemic view of language is not limited to generative grammar, but is common in several other linguistic theories about language. For example, in structuralism, language is described as a system of expressions, where rules regulate how words are allowed to be meaningfully put together into sentences. Language is thus seen in these theories as a system of expressions. Another way to describe this approach is to say that language is regarded as a calculus, i.e. it is regulated by rules. This view of language as a calculus is common in both the technical view on language in formal semantics and in linguistics, as well as in ordinary views about school grammar. In formal semantics, it is obvious that language is regarded as a calculus, since mathematical models are explicitly projected onto language and, according to those models, give it a structure. But, in several linguistic theories and in school grammar, we could also say that language is treated as a calculus, since language is described according to a structure that it wouldn’t have without these rules. We are later going to contrast this view with the idea of language as meaningful according to its use, where it is the function of the actual use of expressions and not rules that give words their meaning.

A second common view of language that we are going to consider is the difference between regarding language as a vocabulary, and seeing language as based upon the conceptual content. According to the “vocabulary view”, language consists primarily of the expressions it contains. Learning a language is above all a question of learning which expressions it contains and the rules for these expressions. This also means that the expressions come to be regarded as the content of the language. If someone learns the expressions of a language, that person is thereby supposed to have learned the meaning of those expressions. Concepts are in this view often seen as standing in a kind of one-to-one correspondence with expressions, as if words had only a single unique meaning that were always connected to the expression. A consequence of this way of looking upon language would be that learning the expressions themselves is thought to be the same as learning the meaning of the expressions. An investigation about concepts will thus often just be an investigation about expressions. Treating expressions as the essential subject of investigations will result in problems with how to explain the
fact that someone can learn an expression without acquiring the knowledge a person is expected to have when he or she has learned that expression. We therefore need to distinguish between the expression, its meaning, and the conceptualisation of our experience.

### 1.2 Problems with the vocabulary view

The vocabulary view leads to several problems. One problem is that in questions of learning and understanding, other issues need to be investigated than in linguistics. It is not the same kind of questions that need to be studied when relations between nouns and verbs are investigated in linguistics, as when someone wants to investigate how the meaning of an expression is understood in relation to learning and knowledge acquisition. We could also say that the vocabulary view tends to confuse *use* and *mention* in language. This argument can be illustrated by the following example. In the sentence:

(i) London is the capital of Great Britain

The word ‘London’ is *used* as a name of the capital of Great Britain. The sentence talks about an extra-linguistic phenomenon, a city. In the sentence:

(ii) ‘London’ is spelled with six letters

The word ‘London’ has been *mentioned*. The sentence does not speak about an extra-linguistic entity, but about something internal to the language, namely a word in the sentence itself. This example is about a name, but the same differentiation can be made between a predicate and a concept. To say that red is a colour is to *use* the predicate-word ‘red’, and speak about something in the external world, whereas to say that ‘red’ is a colour-word is to speak *about* a word in our language. However, we can also speak about the concept or the meaning of “red” as something different from both the colour and the expression. The concept or the meaning is then mentioned in the same way as when we mention a word. We can thus distinguish between the expressions, and the content or
meaning of expressions, and also distinguish between use and mention of both. It is not unusual for these to be confused in discussions about language. In the early days of the philosophy of language, W. v. O. Quine often complained about colleagues who failed to differentiate between use and mention (Quine 1953).

The confusion of use and mention is also common in the vocabulary view. To regard learning and understanding of language as “learning about expressions” is a frequent confusion of use and mention. If someone thinks that learning rules for expressions is the same as understanding the meaning of these words, that person has confused use and mention. To learn linguistic rules for expressions - that a name names objects, how to express tenses etc. - is to treat words in the same way as when we talk about them, i.e. as when we mention them. But when we use words, we are not mentioning them. Instead, we express their meanings according to the function the expressed meaning of the word has in that context. The view that understanding language is to know how to use expressions according to the function of the meaning of the expressions is thus quite distinct from the idea that if someone merely learns the expressions and the rules for them, that person has automatically also understood the meaning of those expressions.

We believe that the vocabulary view of language is common in several socio-cultural schools about learning, and that this type of ideas gives rise to a number of problems. Contrary to the intentions expressed by the socio-cultural schools, we also believe that the systemic view is relatively common in their theories about learning, and would therefore like to investigate their ideas on this issue more in detail.

2. Some alternative ideas about language
In the philosophy of language, it is the content of the expressions that is to be considered, rather than the expressions as such, since concepts are based upon the content. An example of this is synonymy, where the “sameness” of two different synonymous expressions resides in the content, and not in the expressions. In philosophy, it is also common to investigate the formal structures of language, since the logical content is considered to lie in such forms. In the tradition of the later Wittgenstein, the idea of formal structures is generally rejected as a base for language and logical content (Winch
1958). It is in this tradition and in the tradition of phenomenography that we would like to investigate some problems concerning the role of language in learning.

We can see that the difference between expression and meaning is important in another respect, besides the issue of use and mention. The word ‘Vienna’ is the name of the capital of Austria. As a name, it is a noun that names an object. However, the word ‘Vienna’ can also be used as a predicate, as in the following example, taken from G. Frege. In the sentence “Trieste is no Vienna”, the word ‘Vienna’ no longer functions as a noun. It is not used as the name of a city, but as a predicate to claim that Trieste is not a metropolis (Frege 1952). The linguistic role of the word ‘Vienna’ is thus to be a name of a city, but in our use of language we can disregard that convention, and use the expression in a completely different way. And it is the way that the expression is used that ultimately determines its function, and thus the meaning of the word. That means that it is not the linguistic role of words that is the primary condition for understanding their meaning. Rather, the function or role of words in language use is central to understanding. We thus commit ourselves to an idea that affirms that language is based upon the content or meaning of expressions, and not the expressions themselves.

When discussing the role of language in understanding, one of the main points of starting with the content of expressions, instead of with the vocabulary and linguistic structures, is that language expresses conceptualisations of the world. The meaning or the concept of words is expressed by expressions, and this content is the way the world is conceptualised. This provides two important notions. The first is that it answers the question of how language is related to reality. It states that language is related to the world by its conceptual content, and not by external rules. The second important thing we have here is that this connection shows that language, in questions of knowledge and understanding, cannot be explained without involving its relation to the world. This is very similar to phenomenological ideas about the mind (Husserl 1960). The phenomenological answer to the question of how we should understand the mind is that an explanation needs to involve the relation the mind has to the world. In empiricist theories, the mind is supposed to be explained in terms of, for example, simple and complex ideas and their relations to each other (Hume 1978). This kind of theories thus explain the mind as a kind of cognitive machine and need not involve questions about
reality, since the world is supposed to be explained separately, and in an external way with respect to the mind (Johnson-Laird 1983). The relation to the world is investigated in connection with explanations about how knowledge is acquired, but the mind itself is explained without considering this relation. Phenomenology starts instead from the idea that the mind is directed intentionally towards the world, and this “directedness” needs to be considered in the explanation of the mind. The relation to the world is thus not seen as something that can be added to an explanation, simply as a clarification of how mind is related to the world. On the contrary, the explanation of the mind needs to involve the relation to the world, if we are to understand what mind is.

Using the function of the content in language use, rather than expressions and linguistic structures as the starting point for an explanation of language in questions about knowledge and understanding, might be considered as analogous to including the notion of “directedness” in phenomenology. It means that language cannot be explained as a “linguistic machine”, consisting of expressions and rules for these expressions, or based on the assumption that we can separately ask the question of how this system of expressions is related to the world. By starting with the content of expressions - their meanings - we are stating that it is this content that we understand and use in language use, and it is this content we need to investigate in order to understand how we gain knowledge. If, instead, we were to start with an explanation of language as a system of expressions, the content of language would become independent from the world and how we conceptualise it.

The description of language as based upon the function of the content, in contrast to seeing language as a system of expressions, could also be compared to the difference between first and second language. In learning our mother tongue, we do not learn a language, we learn to speak. But learning a second language, we already possess a language in which we have conceptualised the world, and we can thus use this first language as a base for learning a second language. The second language could then be described as a vocabulary consisting of expressions and rules for using these expressions, since we are coming from what we could call “outside”, in trying to learn a new language. Learning our mother tongue, we do not have another language to start from. We learn our first language from inside, from the agent’s perspective, since we learn to
conceptualise the world in this language. When investigating knowledge and understanding, we must therefore study conceptualisations in language and how these conceptualisations are expressed by words, instead of considering language as independently definable in itself, distinct from thinking, and separate from conceptualisations connected to mind.

We feel that the systemic view of language is less relevant for investigations about the role of language in understanding, since it does not leave room for the agent’s own way of making expressions meaningful. In the research project *The interplay between language and thought in understanding problems from a student perspective*, we have therefore developed an alternative model for analysing the role of language in learning, which we call the intentional-expressive approach (Anderberg 2000). This approach has been presented in greater detail in the report *A phenomenographic view of the interplay between language use and learning* (Johansson T. et. al 2006). The background to our approach lies in phenomenographic research on learning. The development of this tradition of research was presented by Marton et al (1984), Marton & Booth (1997) and Marton & Tsui (2004), while Svensson (1997) has described the theoretical foundations of phenomenographic research. Among the specific aspects which are peculiar to the phenomenographic tradition is its focus on the relation between the subject and his/her world in terms of conceptions of parts of the world, or ways of experiencing them. Ways of experiencing, or conceptions of parts of the world are fundamental to the development of individual knowledge. The phenomenon focused in this project is the role and function of language in the development of individual knowledge. The theoretical discussion is a further development of phenomenographic research, in line with a series of previous investigations (Svensson 1978, 1989; Anderberg 1999, 2000, 2003). In these investigations we look at the intended meaning expressed (by the expression that is used), and the function it has in the specific context it appears in, according to the speaker’s intention.

We have also presented our research in an empirical report: *Språkanvändning och kunskapsbildning* (*Language use and knowledge formation*) (Anderberg, E. et al 2005). In this report we investigated how language is used in various ways and in different contexts in concrete situations. This includes examining shifts of meaning in language
use. Since the systemic view is based, among other things, on the idea that language is determined by rules and upon a static view of language, we believe that this view does not capture the dynamic side of language in real life. We have therefore used some ideas of Ludwig Wittgenstein’s later philosophy of language in our research, since he is concerned with the actual use of language, rather than with rules or a grammar that regulates expressions.

3. Bakhtin’s ideas of genres
One of the basic ideas frequently encountered in cognitive theories about language is that language is used by the subject to conceptualise the world (Johnson-Laird 1983). Concept formation takes place with the help of language, and is a way for the agent to understand reality. This idea has been criticised for restricting the concept of language to something “mental”, and sometimes even something solipsistic. The cognitive view has been opposed by theories that consider communication and social interaction as a base for language. Socio-cultural theories have also developed ideas about language as socially appropriated genres or discourses. According to such views, learning is seen as learning to communicate a subject matter, and the ability to communicate something is considered to be equivalent to knowing something. To learn a “discourse” is not seen as simply learning to communicate, but is rather considered in socio-cultural theories to be the actual process of learning and understanding a subject matter. The cognitive idea of understanding as consisting of mental models for computing data is rejected in favour of a socially based process of knowledge acquisition. Due to such divergent standpoints, the communicative view of language is often regarded as fundamentally different from cognitive ideas about language, since it is said to be based upon the use of language, rather than on formal rules. Upon closer investigation it appears, however, that the systemic view of language as basically being a system of expressions is something that still underlies socio-cultural views on language, in much the same way that it underlies cognitive theories. To better understand how the idea of language as something socially appropriated also could be regarded as a rule-regulated system of expression, we will start the investigation with a closer look at the idea of language as a set of discourses.
One of the foundations of the idea of language as consisting of discourses comes from M.M. Bakhtin’s ideas about language (Bakhtin 1986). Bakhtin’s ideas on this subject started out as an investigation about literature. Bakhtin thought that the structuralist school in linguistics didn’t capture aspects that were essential for literature and theatre, and that structuralism could not capture the general linguistic nature of the utterance either (Bakhtin 1986:61). Bakhtin felt it was necessary to study the type or kind of story that a narration belongs to instead. According to Bakhtin, there exist for novels and plays a number of genres that can be used as a ground for analysing, not only the story, but also the text that tells this story. A novel or play can thus be described according to which genre a text belongs to, for instance, drama, tragedy or comedy. Bakhtin also argues that language as a whole can be studied in this way (Bakhtin 1986:61). All language use is thus a use of different genres that build up language. Bakhtin often mentions language use in the military or business-world as examples of genres outside literature.

It thus appears that Bakhtin means that language consists of speech genres, and that all language use could be analysed as if it were a use of a genre in a novel. He additionally assumes that each genre, such as the language of business, is relatively stable, and does not change that much between people or over time. These ideas are built on several questionable presuppositions. For example, to analyse language use in real life, Bakhtin uses methods that seem more legitimate for examining novels, as if it were unproblematic to transfer such methods to something outside literature.

According to Bakhtin, language consists of individual concrete utterances. What is said by an utterance is determined by the genre it belongs to, and a speech genre is determined by three main conditions: the thematic content, the linguistic style (which is what Bakhtin labels the lexical, phraseological and grammatical resources of language) and the compositional structure (Bakhtin 1986:60). The thematic content is said to determine the meaning of the utterance. That means that it is the utterance as a whole that has a meaning, not the individual words in the utterance. Using Bakhtin’s theory, we can thus not say anything about the content of expressions, what meaning they have, or what concepts they represent. We can only say what the whole utterance means, but will not be able to say what meaning particular expressions have, or to what, if anything, a word
refers. Even if we could distinguish an expression from the utterance, we have no means to say what the meaning is. We can only speak about the expression in itself but not its meaning. The conceptual content thus disappears from Bakhtin’s theory, and that also means that what is left is language considered as a vocabulary. In this sense, we cannot say anything about the expressions used and how they represent or refer to reality. This view of language could be enough for a theory that only discusses communication as an exchange of words, or discusses texts in literature, but such a theory will not be able to answer questions about how we understand concepts or meanings of expressions. This will become even clearer when we look upon the conditions for utterances in a genre, since Bakhtin claims genres regulate what is said. According to him, the utterance is complete when it has reached its finalisation. The utterance is then what Bakhtin calls a “wholeness”, that is said to be determined by the semantic exhaustiveness of the theme, the speaker’s plan or “speech will”, as well as typical compositional and generic forms of finalisation. Semantic exhaustiveness is thus not the meaning of the expressions used, but something that the theme of the used genre determines. It is, according to Bakhtin’s theory, the genre and not the function of the language use that decides what is being said.

4.1 Some problems concerning genres

The meaning of utterances is thus in Bakhtin’s theory determined by speech genres, which are built up by the thematic content, the linguistic style and the compositional structure. We have here a foundation for language that is primary to the genre. And that is also what is needed here. If a genre determines the meaning of utterances, the genre needs to use expressions that already have a meaning; if not, if it is the genre that makes utterances meaningful, the genre needs to exist before language. So here Bakhtin is actually saying that ultimately the traditional ideas about language, in terms of grammar etc., explain what it is that makes utterances meaningful. We don’t agree with his ideas about grammar, since we think that use is what makes expressions meaningful, but this shows that Bakhtin primarily discusses literature, and not the question of how expressions can be meaningful in principle. In literature, texts use the resources of language, which is already meaningful, to tell stories. But that supposes that we already have ways to make expressions meaningful, so that they can be used in narration.
Furthermore, the thematic content needs to be determined by something. In a novel it is clearly the story that provides the content, and in a narration it is the plot that provides the story. The problem with this is that according to Bakhtin this is also supposed to be a condition for language use outside literature. A plot belongs to the essence of a story, but the language of physics does not have a plot. Scientific languages are set up to describe the world according to a theory. Scientific languages are a way to describe reality according to the way it is conceptualised in certain theories, which is not the same as to use language for storytelling.

A plot in a story can be set up in endless different ways. How it is set up depends on several different things. One of the elements that decide how a story could be told is the dynamics which drive the story forward. It could be a psychological conflict between two or more people, or just a person’s inner struggle with his or her own psychological problems. It could also be non-psychological coincidence, or accidental events that just happen, like in Shakespeare’s The Twelfth Night. In this play, we are not in the presence of psychological problems that make things happen, but encounter different people at the wrong place and at the wrong time, who constantly misunderstand what is happening, or misunderstand what they by chance hear someone saying. There could also be a mission that the main character is supposed to perform that drives the story forward, or it could be a great catastrophe or, for example, destiny that makes things happen. All those different ways to make up a story are essential for a narration. But this is not something that scientific language uses. It is true that such components could be used to tell a story about something scientific, but to do that one would already need a scientific language that is not based upon a story.

Bakhtin’s ideas about genres thus presuppose that there is some kind of intrigue involved. When analysing novels, this is not a strange idea, but to claim that this is also something that makes up our language use outside literature does not seem correct. Bakhtin also has the idea that dialogue is a presupposition for meaningful utterances. An utterance is thus not meaningful in itself, but only according to the response made by a second speaker in a dialogue. This also seems to be based upon the presupposition that there is a plot involved. In a novel or a play, the sentences uttered are meaningful according to the role these utterances play in the story. If someone in a novel asks “What
time is it?”, then utterance is meaningful as a result of the function these words have in the text. The words uttered could be a question about the time, or they could be an utterance showing that the character who says those words is bored, or something quite different. If someone in real life says the same thing, it could also be an expression of boredom, but there is no corresponding pre-existing directing unit that in itself constitutes a “wholeness” containing a plot that decides what the words should mean. If the sentence “What time is it?” is asked in a novel, it could be something that happens 50 pages forward that decides that the sentence was an expression of boredom. Bakhtin can therefore say “Each utterance is filled with echoes and reverberations of other utterances to which it is related by the communality of the sphere of speech communication” (Bakhtin1986:91). That is true of how sentences work in a novel, but there are no pages in real life that in the future will decide the meaning a sentence will have when uttered in a concrete situation. When someone in real life says “What time is it?” there need not be somebody else to answer in order for these words to be meaningful. The words “What time is it” could be uttered by someone who is alone, towards someone who does not answer, or to someone who does not hear the question or does not understand the words. But in any of these eventualities, the sentence must already have a meaning to be said or to be answered. If someone would like to know the time, he or she could ask the question, and the words would then express what the speaker means, regardless of what another persons says as an answer. If someone would like to know the time, the sentence “What time is it?” could not mean something else just because someone else answers something irrelevant. If the words “What time is it” could not mean “What time is it?” before an answer is given, there would not be any content in those words, and thus no question would have been stated either. There would in this case not be anything to answer. The speaker could not even mean that he or she would like to know what the time is, if the sentence would not have that meaning beforehand. The idea that it is a dialogue that gives utterances meaning is thus something that works in literature, but not in real life, since it is founded upon the presupposition that there is a plot involved. It will then be the function words have in the plot as a whole, and not the function in the concrete use that decides the meaning.
4.2 Genres and rules

According to Bakhtin, the meaning of an utterance is determined by the linguistic style and the compositional structure of the genre, as well as by the thematic content. Language is in this view regarded as a vocabulary, since the linguistic style simply refers to the rhetorical style of the text, and the compositional structure considers the structure of expressions, rather than the meaning of the expressions. Consequently, when socio-cultural theories use Bakhtin to set up their theories of language as discourses, based upon the idea of language as an instrument for communication, language will become a mere vocabulary. Language will also become a system of expressions, where it is the system and not the actual use that determines the meaning of expressions. The third component, the compositional structure, is not only a structure of expressions, it is part of a rule-regulated system that will decide the meaning of language. “We speak only in speech genres, that is, all of our utterances have a definite and relatively stable typical forms of construction of the whole (emphasis in original)” and “Speech genres organize our speech in almost the same way as grammatical (syntactical) forms do” (Bakhtin1986:78). Accordingly, in socio-cultural theories that use Bakhtin’s ideas about genres, language is considered to be based upon rules that decide how expressions are meaningful, just as in systemic theories. In this case we still have rules that decide the meaning of expressions, rather explanations based upon the agent’s intention and actual use of expressions.

If speech genres were to organise and determine our way of speaking, we must ask ourselves if all kinds may do that, or only certain genres. There are uncountable ways of telling a story. It could be narrated in a realistic manner, but also ironically or in a stereotyped way. If the story or the characters are depicted in a stereotyped way, it could be because the story is unintentionally made up of clichés. However, the author could also intentionally choose to use clichés as the best way to make the point that he or she wishes to make. But even if we restrict ourselves to realistic narration, that style contains many components that are possible only in fiction, and not in real life. In a story or in a novel, we often have a storyteller. Real life doesn’t. And this storyteller often has access to other people’s minds. A novel could, for example, include propositions such as “Miss A thought of her childhood during her dinner” or “Mr. B looked at the house and
wondered if it had an elevator”. This way of describing people, as if a narrator had direct objective access to other people’s minds, is only possible in fiction, but not in real life. Realistic novels do not simply describe real life, but are rather written in a way that appears to be neutrally describing real life. We could therefore say that these novels imitate real life. Since it is not realistic to say that someone has access to other people’s minds, it would be better to say that realistic novels are not realistic, but believable. They tell a story in a believable way, which isn’t the same as telling it in a realistic way. This also means that we cannot say that we in real life use genres as in novels, because they tell stories in a way of their own.

5.1 Problematic ideas about language in some socio-cultural theories

In socio-cultural theories in research on learning, knowledge is supposed to be learned in social interaction with other human beings (Lemke 1990; Wertsch 1998). According to this view, when we learn to use language, we develop knowledge by appropriating different discourses. The language use in those interactions will thus explain how we understand knowledge. This should be contrasted to ideas in cognitive theories about mental models. In those models language is supposed to work computationally, so that a person will understand language by learning the rules that apply for the language (Johnson-Laird 1983). Language is, in the cognitive view, a system of expressions regulated by rules. However, if we take a closer look at certain ideas about language use implied in some socio-cultural theories, we can say that they also regard language as a system of expressions. We saw already in Bakhtin’s theories that he regarded language as a system of expressions, and we can find a similar idea also in newer theories, such as those propounded by James Wertsch. In fact, Wertsch explicitly uses several of Bakhtin’s ideas about language in his own theories (Wertsch 1998).

According to Wertsch, we understand language by identifying what is being said, that is, by identifying to which speech genre it belongs. A speech genre is some kind of part of language that concerns a certain subject matter. Each genre will have a pattern that
we recognise when we open a conversation with another person. From that pattern, we can roughly calculate what is going to be said, how long the statements are going to be etc. Quoting Bakhtin, Wertsch claims that these speech genres function in the same way as grammatical forms are said to work (1998:75). They are supposed to be the foundations of language-understanding. This idea is, however, based upon a number of questionable presuppositions. If genres are what makes us understand language, then they must in principle exist before and independently of language. This leads to the odd consequence that we all would know in advance all kinds of genres, before we have understood any language at all. For instance, we would know beforehand, before we have any knowledge of films, how a discussion about films is structured, what can be said about films, what people think of them, etc, etc.

The idea of genres also presupposes that we have already acquired the concept of language. If we are going to be able to identify a genre, we must already know what language is, what words are, what speaking is, what discussion is etc, etc. Genres thus presuppose that we have a language and already master it. It follows that we can use genres to describe conversation patterns in an already existing language, but not to fundamentally explain how we understand language. If we attempt to do so, language will just be a vocabulary consisting of expressions and rules, instead of being based on the meaning expressed by expressions. The expressions in the genre will also be regulated by rules for the genre, so that language will be a system of expressions.

5.2 Wertsch’s pentad
In Wertsch, we also find a discussion about some ideas that K. Burke had originally presented (Burke, 1969). In particular, Wertsch is interested in using Burke’s ideas about a so-called “pentad”, to combine them with his own ideas of mediating tools. A pentad consists of five elements that are used for analysing the understanding of an agent’s action and motives: Act, Scene, Agent, Agency, and Purpose. Wertsch explains them as roughly being the same as the questions “What? Where? Who? How? and Why?” He also says that they are what school children are taught to answer in essays, and what journalists use in writing an article.
This raises the question if the pentad is supposed to give an explanation of the problem of how human understanding works, or if it is just a method that can be used to analyse the motive that lies behind an agent’s action. We presume that Wertsch would say that the theory is supposed to give an explanation of what understanding is. Nonetheless, if the pentad consists of the ultimate components that constitute understanding of motives, these components ought to be non-analysable in some sense, or at least constitute the primary ingredients in understanding. They ought to explain what a motive as such is, rather than simply provide an answer to the question of what the motive for a specific action was.

Bearing this in mind, if we take a closer look at the category ‘Act’, for example, which is supposed to equal the “What-question”, we must conclude that this category cannot be primary to the event that is to be explained. The act, or what-has-happened-question, is an extremely complex question. To explain what has happened is as complex as to explain the motive itself. It cannot therefore be something that is simpler, or primary in relation to the motive. We can, however, use the “act-category” as a tool in a method, if we would like to describe an event. That is also why it could be compared to the what-question used by journalists. The question already presupposes that we know how to describe and understand the world, and can be used as a tool when reporting something. But it cannot answer the question of what it is that makes up what understanding is. The what-question can therefore be used by journalists, since they are not researchers, but it would not work in an explanation of how we understand motives, since it presupposes most of what we would like to explain. This shows that the pentad can be used as a tool to structure the parts involved in a description of the motive that someone had for acting in a certain way. We can from this analysis know what the motive was, but we will not know what it is that makes it possible for us to understand the motive in the first place.

The view of language as a discourse that humans learn by participating in a social activity also contains an idea of language as something that is determined by use (Östman 2003). Östman and others often refer to Wittgenstein to claim that language is set by its use (Wickman & Östman 2002; Östman 2003). This leads to the question what is meant by “use” in this context. If language is made up of discourses, what is then a discourse? Judging by the explanations given in socio-cultural theories, it seems that a discourse is a
system of expressions. It follows that what is learned when a discourse is learned, are the 
words it consists of and the rules for these words (Bloor 1997). Different discourses are, 
according to this view, simply different systems of expressions. We will see later on that 
this notion of use differs from Wittgenstein’s ideas about use. As it stands however, it is 
an idea about language as a system of expressions. To learn a language is in this 
perspective to learn a specific discourse, consisting of a specific system of expressions. 
The use discussed in socio-cultural theories is a use of a rule-governed discourse, and not 
the actual use of language, i.e. the use we can find in ordinary language use, and which 
doesn’t fit into the predetermined schemes that discourses are made up of.

6.1 Vygotsky and language
Besides Bakhtin, Lev Vygotsky is one of the most important names referred to in socio-
cultural schools about theories of learning. We are therefore going to look at a few of his 
ideas, and especially his discussion of language and learning. Vygotsky has several 
interesting discussions and ideas about language and thinking. It seems, however, that 
although he sees language and thinking as inseparably interwoven into each other, he 
evertheless ultimately regards language as an independent system of expressions.

Vygotsky’s concept of language can be described as a variation on the vocabulary 
view. According to Vygotsky, language consists of different units. The smallest 
meaningful unit is the word, and its main purpose is communication (Vygotsky 1962). 
Language is also said to have a grammatical structure that is supposed to be mastered and 
understood by the child, before it learns to understand logical operations (Vygotsky 
1962). Vygotsky also argues that children acquire language from communication 
between humans, which Bakhtin calls “social speech”, and which then develops into what 
is called “egocentric speech” (Vygotsky 1962). When language is mastered and 
internalised by the child, it is transformed into individual inner speech. This standpoint 
could be contrasted to Piaget, who asserts that egocentric speech disappears when inner 
speech is developed (Piaget 1959). But the main point here is that Vygotsky describes 
language as if a word were something that contains a linguistic content in itself, 
independently of conceptualisations, and that content needs to be understood or
conquered in some way. Language is thus explainable independently of subjects. Language is described as a vocabulary, which receives its content from a social context. It follows that language can vary over time and between cultures etc., but still has a content and a structure that is independent of a subject’s individual conceptualisations. In language-use, the mind will accordingly meet the content that is given, and interact with it in a complex way that will result in something that is not always separable from, but nevertheless takes its starting point in expressions.

We can see in Vygotsky’s ideas about communication why, according to his view, language ultimately has to be an independent system of expressions. If language is primarily seen as a means for communication, there has to be something to be communicated. That “something” could be assumed to be thoughts. But in Vygotsky’s view, or at least in the standard socio-cultural way of reading him (as in Wertsch 1998), it is not actually the subject’s thoughts, but a lexical meaning that is communicated, and since this content is not thoughts in form of the agent’s conceptualisations, content must exist independently of subjects. But thoughts regarding our understanding of the world are conceptualisations of the world. Still, according to Vygotsky’s view, language does not consist of conceptualisations, and it cannot do so, because conceptualisations consist of the agent’s perspective (i.e. the first person’s perspective) of the world, which is based upon the person’s own experience of the world. Furthermore, the content in expressions is not only described by Vygotsky as a generalised non-personal content: it is something that is transmitted as a social content, and as such made up from a third person perspective. Vygotsky does therefore not explain how understanding works, since his ideas about communication do not explain how we conceptualise, and the role conceptualisation plays in understanding. Instead, his view presupposes that we can gain access to the knowledge that expressions contain, without making any conceptualisations ourselves.

6.2 Communication and conceptualisations

Several socio-cultural theories of language are founded upon the view that language serves as a tool for communication (for example, Lemke 1990). Such theories are also
often based upon certain of Vygotsky’s ideas about communication, and seem to be founded on an idea that we will become that which is communicated. If we would like to become physicists, we ought to learn to communicate like physicists, since to communicate like physicists should, according to this view, be the same as having acquired the knowledge of physics. The problem here is that we can learn, in a limited way, to communicate as physicists do, without really understanding what we are saying. Students learn to say things about forces, for instance, that are meaningful as long as the students formulate themselves in the same way as the textbook. But when they start to express their understanding in their own words, relating to a concrete problem, things often go wrong (Johansson, Marton & Svensson, 1985; diSessa & Sherin, 1998. For overviews see Duit, Goldberg & Niedderer, 1991; Behrendt et al, 2001) We could in this case say that the students haven’t really understood what they are talking about, since they have only learned to communicate the scientific words, but do not quite understand their meaning. They have thus not conceptualised the meaning the way they should, in order to have a disciplinary understanding of forces, even though these students will appear to be able to communicate about forces in a correct way (Anderberg et al. 2005; Johansson et al. 2006; Svensson in press). In contrast to the socio-cultural school, we believe that a more productive concept of language that can be used in investigations about understanding and conceptualisation must be based upon the meaning of words, rather than on the expressions or the vocabulary. We further believe that social activities are just part of human interaction, and that not everything that is transmitted in such interaction is socially determined. Many things transmitted in human interaction are, for instance, intersubjective, but not determined by, or a result of, a social process. An example of this would be the true and objective understanding of, for instance, an object as a dog, when it is a dog, and not a cat or a horse or a car. This fact can then be expressed by using the word ‘dog’ to express that a certain object in front of me is a dog. Language is thus not only a form of communication. It is also a way to express conceptualisations of the world. We can also see this if we compare different social groups. It is not enough to learn a foreign language to become like a person from the country that speaks that language, just as it is not enough to learn the jargon of a completely different social class to become like a person who belongs to that class. One
must also learn the *conceptualisations* that belong to those groups of individuals, before one can come to think like them.

### 7. Language as a tool

We can now proceed with a discussion of the socio-cultural idea of the role of language in learning as a tool, since it seems *prima facie* to be an explanation of how language works. This view is much developed from Vygotsky’s ideas of mediation as a way to accomplish knowledge. One of the main characters in this tradition is James Wertsch (Wertsch 1998). According to this idea, language is considered as a mediating tool that the mind uses in understanding new concepts. How should then the idea of language as a tool be understood here? If we use a hammer as a tool, we could say that it is the subject or agent who uses the tool. The hammer is then external to the agent. We do not need the hammer to explain what an agent is. There is no necessary relation between the agent and the tool. If we compare this to the idea of language as a tool, we see that it could be understood in at least two different ways. Language could be either externally or internally related to the agent. If language is seen as a tool external to the agent, it becomes a kind of device that could be substituted by anything that would work equally well as a tool. On the other hand, if language is internally related to man, it cannot be explained independently of man. The relation language then has to humans is that it is part of how we conceptualise the world. The conceptualisation is in this case the meaning expressed by expressions in language use. Language could in this view also be described as a tool, since language belongs to the way we cope with the world, but an internal tool.

If, on the other hand, language is considered to be an external tool and it were possible to explain it without involving the agent, it would also be external to the subject. One way of describing language as external to human beings is to say that it is possible to fully describe it as a discourse. Language then becomes a system of expressions that can be described as a system regulated by rules, independently of humans. When we have learned the words and rules of the system, we can be said to have learned the language. That is also an idea contained in the idea of language as a discourse. If language is a system of expressions that is external to humans, it does not consist of language regarded
as based upon concepts or on the meaning of expressions. It will instead be language seen as a vocabulary, where a vocabulary is something that is independent of the mind that can be learned and exchanged into another language, without altering the foundations of thinking. If thinking and conceptualisations accordingly exist independently of language, language will be a vocabulary, rather than something consisting of concepts, or of the meaning of expressions.

It follows that if language could exist as an independent exchangeable discourse it would not be based upon use either, but would instead become a kind of calculus, a system of expressions. In socio-cultural theories, it is often claimed that language is regarded as meaningful according to its use, but as we can see, contrary to the intentions expressed, such theories are instead based upon an idea of language as a calculus, rather than upon its use. Despite this, it is also often stated that the idea of language as a discourse accommodates Wittgenstein’s ideas about language (for example, Wickman & Östman, 2002, and Östman, 2003). In Wittgenstein, we can find both the idea of language as use and of language as a tool. If, however, we take a closer look at the idea of language as a tool, we see that Wittgenstein’s idea differs from the notions that are common in socio-cultural theories, since, in our reading, Wittgenstein sees language as internally related to man. We will therefore investigate the idea of language as a tool for a better understanding of Wittgenstein’s idea of language as meaningful according to its use.

We can take as an example of language use, the way a small child learns to handle a mug while eating. When it does, the child not only drinks milk from it, it will often bang the mug against the table, throw it on the floor, bite on it, etc. By doing all those things, the child will learn, not only that a mug is something that can contain milk, it will learn that the mug will be empty if you drink from it for a time. If it is made of plastic, it will probably not break when you throw it to the floor, which a glass will do; you can use a mug to make noise with if you bang it against the table, but not in the air, etc. Eventually the child will also learn that a mug is called a ‘mug’. What the child learns is thus to cope with mugs, to conceptualise them. It will in this sense learn a lot of things that can be described as properties of the mug, which will be described with words that express concepts that represent those properties. When the child has learned that, it has learned the meaning of the word ‘mug’ or the concept “mug”. It follows that we learn
concepts by learning to cope with the world. We do not learn concepts by simply learning a *vocabulary*. But that is what the socio-cultural idea about learning is. It is based upon an idea that if we simply learn to master a vocabulary, we are supposed to be able to handle the world as if the expressions *themselves* would give us the agent’s perspective of the conceptualisation, which is instead based upon a third person perspective. That means that language is in this view external to the subject, so we can learn a discourse primarily and independently of how we cope with the world. The discourse will in this case be the description of the world, which means that in learning it, it is the discourse and not the mastering of concepts that is gained, that will give us access to and knowledge about the world.

The interaction between people, which in socio-cultural theories is supposed to constitute the foundation for the development of knowledge and understanding, will in such ideas instead turn out to be a mere exchange of words. When Wittgenstein discusses language use, on the other hand, language is internally related to the world, since the concepts are learned by an *activity* in interaction with things in the world. By learning to cope with mugs, the child will learn the concept “mug”. *Words* are then accidental to that which is learned, but the concept is not. Language as a tool, according to Wittgenstein, accordingly means that the subject uses a conceptualisation to understand the world. This conceptualisation will result in a meaning that is expressed by words. Language is thus based upon the meaning expressed by words, and not upon the expressions.

### 8.1 Language-games and tools

The difference between language seen as a vocabulary and seen as consisting of the meaning of expressions is also important to understand Wittgenstein’s idea of language-games, since it differs from the notion of language-game that can be found in socio-cultural theories (Bloor, 1997; Säljö, 1991, 2000; Wickman & Östman, 2002; Östman, 2003). In those theories, a language-game is a kind of discourse. That means that language is built up from parts, such as the scientific language, religious language, the colour language etc. They then together form a sort of wholeness: a wholeness that is thought to be language. Although some parts contradict each other, or cannot be used in a
meaningful way together, the basic idea is that a language-game is seen with respect to language as something substantial, something with a content: they are about something. This is however not Wittgenstein’s idea of language-games.

When Wittgenstein discusses the notion of language-games, he calls them objects of comparison. They are used as an instrument to investigate conceptual problems in language. That means that they are not parts of language. They are not discourses of language. Language games are tools used to investigate something that is a conceptual or philosophical problem, and do not constitute a description of what a language consists of.

We can take the colour-words as an example of how he regards language games. It is not meaningful to say that two different colours simultaneously completely cover an object. An object cannot simultaneously be both red and blue all over. This is a conceptual remark about colours. It can be used to investigate problems about how one meaningfully can speak about colours. But this language game of colours is not something that we learn as a discourse. When we learn the colour words, we do not say about objects that they are not simultaneously both red and blue all over. We often say about an object that it is red, or that it is blue, but not anything about what they simultaneously are or are not. This is so because the language game is not something that we use in ordinary conversations. The language-game of colours is not the set of colour-words that we use to talk about colours with. It is instead a tool for investigating conceptual relations, and it is such conceptual properties and relations that we learn when we learn language. We do however not learn the language-game of colours as a discourse containing sentences like: “This object is completely both red and blue all over”.

Conceptual properties are consequently, according to Wittgenstein, something that we learn when we learn to cope with coloured things, and learn to use colour words for those things. We do thus not learn to use colour words by learning the colour language alone. What we do is that we learn practices that include the use of things, together with colour words. Language is in this sense not a set of expressions that make us look at the world in a certain way. If it were, we would first learn language as a vocabulary, and afterwards apply it to the world. But that presupposes that language can exist independently of both the world and of human activities and practices. The language of colours would then just be the vocabulary of colour words.
8.2 Language as a tool for conceptualisations

We can once more take the example of how a child could learn what a mug is. And we could say that what the child does is just that, learning what a mug is. It learns what a mug is, and it does that by learning to cope with mugs, and that includes learning the word ‘mug’. This is different from saying that the child learns what a mug is, because it has first learned the word ‘mug’. By handling a mug the child additionally learns, besides the examples we mentioned above, that a mug is not a living thing (although children often tend to express themselves in an animistic way when they are young). They also learn that a mug can’t, for example, talk or evaporate during the night. This is a thing that children learn by coping with mugs, and that is the conceptual side of the word ‘mug’. While concepts or meanings can also be associated with a word or an expression, they need not to.

Another example of the difference between language considered as a vocabulary and language seen as consisting of concepts, are cases where we do not always have words to use. We can often differentiate between two different smells, simply because we can identify them as different, and we do that by the different properties those two smells have, even though we seldom have any words for smells or their properties. But the different properties we use to distinguish them are (at least) two different concepts used to differentiate between them. So, whether we have words or not for smells is a matter of secondary importance. The important thing is if we can differentiate between the properties different smells have, we do so using the concepts. We do not discriminate between them through the words we use to identify the two smells.

When Wittgenstein discusses language use, he thus means use of words as concepts according to the properties that the words represent in the context (Wittgenstein 1958). Concepts, or the meaning of expressions, are internally related to the properties of things, whereas words are not. That means that it is not the culture a person lives in that decides which conceptual properties something has. A mug can’t speak or evaporate during the night, regardless of the culture someone belongs to. Two colours can’t simultaneously occupy the same area of an object, no matter which culture someone
belongs to, or how many colour words a person knows. There thus exist conceptual properties that are not relative to a culture or the discourse a certain culture has, and these conceptual properties ultimately decide what a thing is, and what properties it has. Horses could be worshiped in one culture and totally dismissed in another. They would then be described in different ways in different cultures according to different properties they are supposed to have. Such properties are relative to a culture, but there are other properties that do not depend on culture. For instance, horses cannot fly. This is a conceptual property that describes something objective about horses as biological entities, and that does not depend on different attitudes to horses in different cultures - although naturally, flying horses such as Pegasus may exist in a symbolical, literary or mythological sense.

When socio-cultural theories say they investigate concepts and the understanding of concepts, we could say that they are in fact instead investigating a vocabulary. When language is discussed as a “tool” in those theories, concepts become words that are supposed to be applied to the world. The world must then conform to the words, not to concepts. Contrary to the intentions of socio-cultural theories, if this reasoning were valid, a person learning a language would be learning the workings of a vocabulary and its rules, and would not be acquiring concepts or the meaning of expressions. In Wittgenstein’s discussion, language is instead seen as a tool in the sense of a way to understand how the world is, since characteristics in the world decide which properties a concept represents. To say that language could be regarded as a tool means in this sense that it is not regulated by a system of rules, but words are used conforming to the way we have learned to cope with the world in concrete practices. The discourse idea is the opposite. It says that to use language as a tool, is to learn to cope with the world in the way language describes it, independently of activities.

9. Summary
When investigating the role of language in learning, it is necessary to consider what concept of language is used in these investigations. In socio-cultural schools, language is regarded as a tool for communication. This view of language is supposed to differ from how language is regarded in cognitive theories. This is true to a certain extent, but a closer inspection reveals that socio-cultural schools often proceed form the same basic
assumptions about language as in the cognitive theories. Language is often seen as a system of expressions, where words are structured in a rule-regulated way. We do not think that this type of concept of language is productive for explaining learning and understanding. It may be useful for other purposes, such as in Bakhtin’s analysis of literature, but we think that it cannot capture the workings of real life language, where language is dynamic rather than static. We therefore prefer to focus on investigations about how conceptualisations are done and how conceptualisations give rise to an expressed meaning in language use. In the latter perspective, it is the intention of the agent in using a certain expression in a certain way in a certain context that will determine the meaning of that expression, and it is also that type of meaning that is used in understanding and learning, as well as in communication. We therefore think that regarding language as a system of expressions where rules and definitions decide the meaning of expressions cannot explain students’ problems in learning and understanding subject matter. And if understanding language is considered as the same as learning a discourse, or a genre of expressions, without regarding which function the expressions have depending on the agent’s intention, we believe that such ideas about language cannot explain understanding or communication either.

**References**


