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Explorations in metalearning from a narrative stance

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Abstract

This paper offers:

- a. an outline of a narrative stance on human learning, its axioms and insights
- b. an account of the derivation of practices which promote an enriched story of learning,
i.e. enhanced metalearning
- c. some evidence of experiences of how this leads to more engaged, active and self-directing learners.

A variety of examples are offered where schoolteachers in the London region have operationalised these ideas, and given accounts of the impact on learners and learning.

The paper also suggests that a narrative stance on learning offers a further development of conceptual trends in understanding learning which have characterised the 20th century, and that we may see metacognition as a key product of relations between a person's internalised narratives and various "external" discourses of their context. This provides a rich culturally-sensitive idea with many implications for constructive action.

What is a narrative stance?

A narrative stance on human action and understanding is one stance in the constructivist perspective, which takes the view that human beings are sense-making animals who engage in interpretive acts to give meaning to their experience of the world. At its core, a narrative stance holds that the frame with which they do this is narrative, taking the experience into a story line of actors, events, sequence and plot. As we 'story' our experience, we impose a narrative interpretation on information and experience. At a very basic level, 'Stories consist . . . of events, characters, and settings arranged in a temporal sequence implying both causality and significance' (Carter 1993: 6). Thus, a story carries information about how things work, what meanings events have, presumed purposes, as well as a sense of audience. Stories are always open to question and one story invites another (Bruner, 1991).

Bruner (1985) proposes that narrative modes of thought contrast with paradigmatic modes of thought and that the two are irreducible to one another.

A narrative frame also highlights the social processes in human sense-making, emphasising communication with others, since it has been argued that narrative is the only frame which humans have for relating experiences to each other (Ricoeur, 1989).

In recent decades a narrative stance has been developing in a number of fields associated with learning. Engel (1999) explores the ways in which memory is constructed and reconstructed in storied forms, reflecting the reasons and contexts for creating remembrances. Schank (1995) after a decade of work in artificial intelligence concluded that more had been learnt about the nature of human intelligence than how to model it with machines, and that human knowledge and intelligence should be understood in storied forms (see also Schank and Abelson, 1995). In anthropology the stance that culture is "The ensemble of stories we tell ourselves about ourselves" Geertz (1973: 448) offers a way of examining cultures of societies, of organisations, and so on.

Narratives are not mere cognitive constructions. The stories people offer for their experience are influential – they constitute life rather than merely describe it. "A life as led is inseparable from a life as told" (Bruner, 1987: 31). Within a narrative stance, a range of sub-concepts have been used for study: some with more of a cognitive emphasis such as metaphor, others such as "scripts" making the connection between action, meaning and context. The connection between ranges of meaning and possibilities for action is illuminated by the concept of script, which may be applied at a variety of levels, for example family scripts, organisational scripts and cultural scripts (Welikala 2006).

Narratives are not static: they are in a constant state of production. They are developed through dialogues and experiences in many contexts, and the influence of immediate contexts, family contexts and cultural contexts are often heard within them.

A narrative stance on human learning

A broad way of describing a constructivist stance on human learning might be: "... the process whereby knowledge is created through the transformation of experience" (Kolb, 1984). What we know about effective human learning highlights the process of metacognition, in that effective learning includes the extra dimensions "which actively involves the student in meta-cognitive processes of planning, monitoring and reflecting" (Biggs and Moore, 1993). The development of sophisticated metacognition in the domain of learning has been referred to as "meta-learning" (Biggs, 1985; Jackson, 2004). So in parallel we could say that metalearning is the process whereby knowledge is created about learning through the transformation of experience of learning.

To parallel these definitions within a narrative stance we could say: "learning = adding variation to one's narrative repertoire". So learning is the process of becoming able to say and understand more things or wider things. Whether they be brief stories ("three twos are six") or extended ones ("under normal conditions of intransitive and commutative

operations and numbers, in base 10, we would denote 3×2 as 6"), the production of meaning in a storied form is highlighted, and the processes of describing and explaining to oneself and to other audiences are implied.

In a further parallel we might say "metalearning = adding variation to one's narrative repertoire about learning". Here it may be necessary to add that the learning referred to is the lived experience of learning, not some body of knowledge called "learning" to be found in books or elsewhere.

Everyone has experiences of learning, even though they may not yet narrate those experiences (to themselves or to others) in a productive and empowering fashion. The question therefore arises whether (and in what way) other people might help learners to narrate their experiences, see more in them, enrich their view of learning in the process, and move towards becoming a more versatile learner as a result.

From a narrative stance, learning is one aspect of human experience, and as such is open to being storied – but this occurs in different extent, and in qualitatively different ways. We do not story all of our experience to the same degree, and people's experience of learning is not usually richly storied. It probably reflects the dominant discourses in a culture. In classrooms across the world, the dominant discourses evidence the story "Learning = Being Taught". In many life contexts, and in many schools, the dominant stories about learning which are offered to young people are limited and problem-saturated. The majority of narratives which people have available to make sense of their learning are underdeveloped and prone to categorical forms ("it's a case of X", rather than "it's a story of Y"). These stories about learning are "thin" descriptions. They stop early in dead-end categories. At worst they end with learners disqualifying and pathologising themselves: "I can't" "I'm stupid". The dominant thin story "Learning = Being Taught" causes people to neglect their own role in the experience and process of learning. Many people are understandably but probably unwittingly recruited into that story line (and the normative judgements that are associated with it).

So the human ability to story one's experience, including one's experience of storying, is related to our knowledge of metacognition and metalearning.

Children's stories of learning

We know from large naturalistic corpus of children's spoken language (Bartsch and Wellman, 1995) that between the ages of 1½ years and 6 years there is evidence of the first steps in development of a theory of mind, in that children increasingly use terms like "think", "know", "believe", "wonder" to an extent which is up to 2% of total utterances by the age of 4 years. So young children at home demonstrate metacognition (see also Brown and Kane, 1988, for evidence of 3 to 5 year-olds transferring learning on the basis of principle, not surface features).

We also know that young children soon start to use the narrative form for communication, demonstrate an attachment to stories (Alexander et al., 2001) and sometimes include in their stories comments on the story itself: "I saw Daddy. We talked with Granny. It was great". These metacommentaries (Bruner and Lucariello, 1989) are a key element in the way that the narrative form facilitates the ordering and understanding of experience. It can be applied to core human notions such as someone's conception of persons (Richner and Nicolopoulou, 2001).

But there are few studies which focus on young children's stories of learning, especially before the school years. Our own evidence from many classrooms and projects is that before any intervention, the stories pupils tell about learning are often focused on judgements of learners, and allocate little active role to the learner themselves – "I'm a good learner" "I'm not a good learner – I'm slow" "I'm not that brainy" "I learn quickly and it stays in my head" "I learn best by listening to the teacher" and so on.

Promoting metalearning

To help learners develop richer narratives about their learning it would seem necessary to provide scaffolding conversations and other activities about their learning experiences, through which their initiatives which would otherwise be lost are rendered significant, thereby reclaiming space from the dominant story.

Pramling (1988) showed that the development in young children's conceptions of learning could be accelerated by engaging them in "metacognitive dialogues", when children were asked to reflect and ponder about what they were doing and why they were doing certain things which would otherwise be taken for granted. It was shown that "children who have been involved in this form of educational activity [including meta-learning] are better prepared for learning (understanding new content)" (Pramling, 1990:18). Six year olds showed greater understanding in three real-life learning experiments compared to their peers in parallel groups. This study did not adopt a fully developed narrative stance but indicates broad approaches.

A narrative stance contends that our stock of lived experience is usually richer than the dominant story told. We can therefore imagine general ways of re-storying our experience more richly, that are likely to lead to a wider range of actions, and this becomes self-maintaining. In the case of learning people may be helped to narrate experiences of learning through processes of:

1. describing learning experiences
2. engaging in dialogue with other learners about learning experiences
3. listening to others' re-telling of their narratives about learning

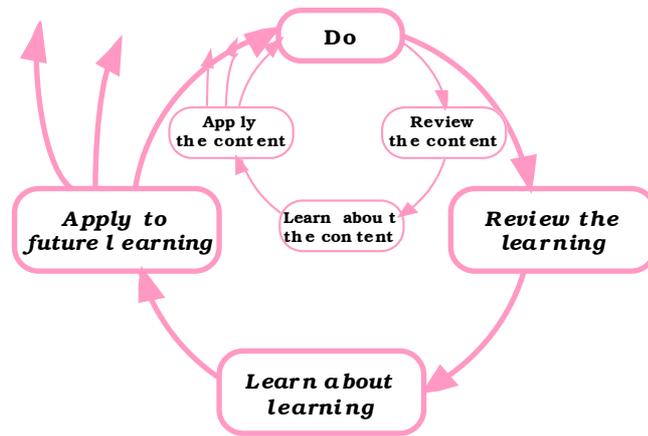
These processes are supported through particular prompts and social arrangements.

Type of prompts

Some prompts elicit thin narratives, for example "What did you learn today?" classically elicits a thin response, ranging from "Nothing" to brief accounts of a product. They often inadvertently prompt a performance orientation rather than a learning orientation (Watkins et al., 2002). In order to focus on the process and to remain experience-near, prompts of a narrative sort are needed:

- What did you do? Did it change as you went along?
- What did you notice?
- What was the most important thing?
- What purpose did you have in mind?
- How did it feel?
- What helped/hindered in the learning?
- Did you meet any blocks or confusions? How did you handle them?
- What risks did you take?
- What surprises did you have?
- Did you work with others?
- Did anyone else help you with your learning? How did they do that?
- Do you see any patterns in your learning, or connections with other experiences?
- How do you make sense of that?
- Is there anything you would do differently next time?
- Can you imagine yourself taking that learning a different way on a future occasion?

If we describe the process of learning simply as a cycle of action, reflection, sense-making and application, then these prompts are designed to stimulate an additional cycle of metalearning (Watkins 2001):



Research on prompts shows that even in the most limited situation of one-shot interventions and learning from lectures, cognitive and metacognitive prompts are effective (Hübner et al., 2006). But they may not be popular with learners at first when they are discordant with the dominant narratives.

Finding a prompt which elicits a learner's appreciative narrative is sometimes difficult, especially with learners who may be disaffected from school. An educational psychologist (Fletcher, 2004) struggles with this and writes:

"I have finally found a question that I am happy to use and which has produced a very positive response from two young people, both of whom, for one reason or another, were "right on the edge" from a school point of view. The question is a very simple one: "Tell me about some learning in [English] that you are proud of." (I would choose the subject area following any hunch or ideas about the child's favourite or preferred subject area) I follow this up by asking them to tell me about some other learning that they are proud of either running through all the subject areas or sticking in one area until it seems exhausted. I have so far have been quite excited, not just by the answers that young people have given, but by their very definite pride in the learning that they are talking about."

Although this example uses experience of learning in school, this need not be the case

Prompting multiple contexts for learning

Learning, just like other human behaviour, varies according to context, although this point is missed by many of the individualistic accounts of learning which circulate. In one study (Williams 2002) the teacher spent time with secondary school students helping them notice, discuss and write about their experiences of learning. It proved important that these experiences were not just in school, because students' experience of learning out of school often gave evidence of a richer narrative. For example:

"When I was learning to skateboard I kept doing small things again and again, until I really got them, and just looking at other people doing stuff and seeing what worked for them made me choose the next trick that I wanted to learn. There wasn't anyone telling me I should do this or that next, I just did what I thought was cool, and talk about my difficulties to friends, asking them what they thought about moves and things. I think that is really important to my learning - choosing the time to do something and choosing the way to do it. And being interested in the whole thing, I guess."

This example highlights a view of the learning process which is active, collaborative and learner-driven, and contrasts are voiced or implied which suggest that school is not. The potential for transferring scripts and strategies from a more richly storied context to a less richly storied one is significant.

Peer contexts for building richer narrative

Winsler et al (2000) found that “private speech” of three-year old and four-year old preschool children varied according to context: they were most likely to talk to themselves when alone, next likely in the presence of peers, and least likely when in the presence of a teacher. Thus peers are highlighted as the potential bridge between private talk and the public talk in what may be evaluative contexts. This point is incorporated into the important practice of using peers as key people with whom to hold conversations about learning. The way that a joint narrative emerges in such contexts is clear to young learners. In a review of the practice of “Talk Partners” (Kurz, 2003) one 6 year old boy said:

'I didn't have a clue how to do it at first, but then my partner helped me. After he had told me about his work, I knew what sorts of things to say about mine.'

On this theme, others said:

'In Talk Partners your partner can help you because they tell you different ways to work things out.'

'When my partner tells me how to do something in a better way, I know they are not being mean, they are just trying to help me.'

which emphasises the way that strategies can be examined together by peers, and trust can build. Further comments from 6 year olds come from a classroom which has been operating along some of the lines of a learning community (Watkins, 2005), with public messages about learning, learning conversations and reviews (Bonnell, 2005).

"I've learnt that you can learn from other people. I've learnt that you have different ideas than other people...." (Ruth aged 6)

Such use of peer discussions about learning is a key (although rare) element in building up a metacognitively-oriented learning environment (Thomas, 2003). The effects of such an environment on learners' narratives are beginning to be identified below.

Elements of a richer narrative

A rich narrative differs from a thin narrative in a number of ways, which give evidence of increasing complexity, that is more differentiated and more integrated at the same time. In the particular case of learning narratives, the following items arise.

1. Multiplicity of learning resources

"I have learnt from books and the TV and even toys. I have learnt from fresh air. I have learnt from other people at class time. I have learnt from Mrs Bonell. I have learnt from pictures and computers. I have learnt from writing". (Isabel aged 6)

"We learn from each other. We learn by listening. We learn from the teacher. We learn from books. We learn from looking at DVDs. Looking at the board. We learn from sitting on the carpet. We learn from looking at other people's work. (Annabel aged 6)

2. Greater independence from teacher

"I have learnt more things because you [teacher] don't have to come round to all of the groups to tell us". (Lucy aged 6)

'Talk Partners are good because then I can remember the work better. When we have to do it again I will remember it better and I won't have to ask the teacher.' (boy of 6)

"Ms X usually helps us learn a lot, but with this project it was different. A lot of the time I didn't even notice she was there. This has helped me learn that I don't need someone telling me what to do to learn well." (pupil of 13 yrs, Timbrell, 2004)

3. Conceptions of learning extend from “learning = being taught” to “Learning = active sense-making”.

Maharasingham (2004) held conversations on learning with her class of 10-year-olds for about a term. At the same time the class has been writing in learning journals, and the entries here seem to indicate a significant change over the period of the school term:

Conceptions of learning in October

"You know that you have learned when something new is installed in your head."

"Learning is when you are educated by teachers"

"I think learning is when you don't know something and then you know it"

"I think learning is when you're learning something new"

"I see learning as acquiring facts. Sometimes it is mainly getting facts and making sense of them."

"Learning is when you listen to the teacher and store what she is trying to tell you."

Conceptions of learning in December

"Some people think learning is just stuffing information in your heads but it is not because the understanding is much more important. To be an effective learner you have to ask questions so you can challenge yourself instead of just sitting there and thinking you're perfect."

"I think responsible learners accept their mistakes and do their learning over and over again until they understand"

"When you ask questions you can learn more, but if you don't ask questions you stay in the same place that you were in."

"I think that you don't learn as well if the teachers just tell you because you can't just open your brain and pour in the information, you need to have had a full conversation about it."

4. Conceptions of what it means to be an effective learner or what constitutes an effective learning environment become more complex, learner-driven and collaborative.

"An effective learner asks questions. Even when they are really confused if they don't understand they say to themselves that they would try. They would believe it is how much effort they put in not how clever they are. They have a voice in their heads and believe in themselves." (Maharasingham, 2004)

Bodger (2002) had spent some time discussing with her class of 10 year-olds their experience of learning, when it was best, what helped and so on. The class then developed the emerging stance for their classroom into a set of principles for an effective learning environment. These included:

We need to cooperate, sharing our thoughts, ideas, understandings, concerns, difficulties and opinions

We need to have the confidence to make mistakes

We need to question what we are told or what seems obvious or correct

We need to feel that we have an equal chance to contribute/speak

5. Learning more seen as a process and a journey which focuses on meaning and understanding, rather than on techniques.

MacIntosh (2005) operated her English class of 15 year-old boys as a learning community, with a strong focus on dialogue for learning, and the class creating knowledge with and for each other. During an end of year discussion pupils compared their experience with other "learning to learn" interventions:

P1: I think the two concepts are different. With Mr X it's more learning *techniques* to learn, but what we do in English is learn about HOW we learn, so it's a kind of different concept.

P2: I think they're different in another way Mr X was telling me in a different conversation that the whole point of his workshop was to help us learn to improve our grades for our exams, but when you're going through it, I didn't think we were actually learning, it's more like how to cram revision into your head for an exam that's going to happen a few months or a few weeks or even days after the workshop. It wasn't learning it was more how to remember stuff ... Why is someone doing it now when we could have been doing it for the last three years?

P3: I think that with us it's learning how *we* learn, and in the workshop it's telling us a "good" way to learn.

What is also noticeable here is the regular use of the collective "we", and in this example there were also reflective comments on the group process.

6. Learning more seen as a function of groups and communities.

Pupils' comments indicate the role of peers in their learning from an early age, but with particular experiences which utilise group processes for learning and also reflect on them, their comments start to attribute their learning to the group processes:

P6: I think that in English we work we *learn* as a group. We, y'know talk about it, our opinions, and write them down or whatever you like, and think about what other people are thinking, and learn from that. Learn from other people.

I don't necessarily think that in every English lesson every minute is spent as other teachers would call 'productively', but enabling them doing what I'm doing now, just babbling out loud, Having that opportunity, to do as a whole group and as smaller groups, means that I can clarify ideas in my head which in other subjects we're just not allowed to do.

P1: I think that as a class we were quite not bothered with the learning to learn when it started: I agree with that, and when we were debating issues most people had their heads down, fiddling with pencils and stuff, but as we learned that talking about the issue and debating our own ideas, we actually learned a lot more, and it also affected what we felt about these issues and it quite helped for when we actually did our essays.

These comments seem to be a more reflective style than the more immediate meta-statements which have been identified in other work on collective metacognition (Hogan, 2001).

Some of the above comments indicate their view on the *purposes* for learning, and in other examples this was made very clear:

"Learning is what I do as a human, to become a better human. How can exams test really important learning, like learning to love someone, or learning to cope when that person dies?"
(12 year-old, Williams 2002)

Further examples may be found in Watkins 2006/7

When narrating is too hard

The practices outlined above are workable for a very wide range of learners, and if used often can have significant impact on learners and the learning culture. However, some learners present themselves with strongly problem-saturated narratives. Thin descriptions surface at this point in the process, which have been explored in much of the literature on performance orientation. Certain voices of disempowerment arise, such as "it's too hard", "why bother!", "I can't", "I don't know anything". Here some more particular practices of narrative therapy (White and Epston, 1990; Morgan, 1999) prove relevant:

- externalize the difficulty "the person is not the problem: the problem is the problem" (White, 1988)
- map the negative effects the voice has on what the learner wants for their life
- identify exceptional occasions when the voice was not powerful, and help the learner to story their role in that (Huntley, 1999)
- practice further ways in which the negative effects of the voices have been tamed (White, 1985), and thereby reclaim their lives from the effects of the problem.

Huntley (1999) describes work with individuals where the problem is externalised as "Mr Rushing", "Mr Guessing" and "the Too-hard voice. Teachers raising this with learners find it is something they recognise:

'I hear the Too-hard voice when the learning is difficult. Then I just give up. It makes me feel I cannot depend on myself.'

'I hear this voice in some subjects more than others .I hear it in history not maths.

Sometimes I give up because I see the word 'hard' as something impossible you can't do.'

'I usually get that voice which says 'its too hard' especially when I practise the piano and when I do literacy. When I hear that voice (which is all the time) it's very hard to ignore it and I usually find myself saying that to the teacher. (Maharasingam, 2004)

But the same teacher also reports:

"In December when I asked this question children had very few if any strategies to deal or cope with this voice, it seemed to be a real barrier to their learning. However for most of the children and even myself just thinking or becoming aware of this voice was an important step to recognising a part of learning behaviour. We then had dialogue about what we could do when we heard this voice (this dialogue came up time and time again) and over the next few months I observed a change in learning behaviour. Children were more able to persist even when the learning was tricky/challenging" (page 16) and she summarises the emergent strategies as "Wider range of responses to the It's too hard voice: self verbalisation, asking for clarification, re-reading , dialogue with a peer, struggling and having a go" (page 21).

Collins (2006) has started this externalising approach with a secondary class, who are writing stories about the negative impact of "interfering monsters" they know, and how their effects can be tamed. Examples of monsters include "Homework-too-Little", "Gossip-too-Much" and "Walk-around-too-Much, and the key process of identifying their negative effects on what the learner wants has also begun:

'I dislike the "No" monster because he gets me in more trouble'.

Summary of effects

If a learner is helped to story their experiences of learning more richly, and externalise the disempowering voices, many of the phenomena of narrative work occur:

- Acts of agency (initiatives) are recognised
- The role of relationships is highlighted
- Other knowledges are accessed
- Human values and life intentions are embraced
- Diverse ways of being in life are honoured

The effects can be summarised in the following:

1. they see more of a role for themselves in their own learning (this initially comes as a surprise to many)
2. voices of disempowerment are identified, such as "it's too hard", "why bother!", "I can't", "I don't know anything", and can be addressed.
3. A learner's view of learning starts to recognise and embrace the relational aspects of learning

From the point of view of metalearning, it seems that the effect of narrating experiences of learning more richly is to developing a more complex conception of learning which represents a significant shift in the discourse of learning (Watkins, 2003) through:

1. Learning = being taught (instruction)
2. Learning = individual sense-making (construction)
3. Learning = building knowledge as part of doing things with others (co-construction).

To adopt a narrative stance on learning offers a richer human perspective than is offered by earlier models and views of learning (ranging from learning as a change in observable behaviour, learning as adding more facts, learning as understanding, learning as creating knowledge from experience, to learning as adding variation to narrative repertoire – a range which compares well with trends in 20th century literature in learning: Mayer 2001).

Future directions

Although the examples in this paper have focussed on learning, a narrative approach seems also to have application in other fields of interest, where researchers have proposed “dialogic retrospection as a metacognitive research tool” (Nevin and Cardelle-Elawar, 2003).

Further than this I suggest that a narrative approach could make a significant contribution to some of the unresolved issues in the field of metacognition and learning. In his recent review of these, Veenman (2006) suggests:

“Research on metacognitive instruction often merely reports product measures (i.e., the effects on learning outcomes). In order to establish causal relations between metacognitive instruction and learning outcomes, however, also process measures of metacognition need to be assessed in a pre-test/post-test design” (page 9).

I suggest that the elements of a richer narrative identified in this paper could be further developed into some sort of contextually-based measure of metacognition with respect to learning, assessing the degree of complexity in learning narratives. The continued regard to context is important, also to Veenman who continues:

"We need to know a lot more about how individual differences and contextual factors interact with metacognition and its various components"(page 10).

Zimmerman (1995) has suggested that a social-cognitive perspective is needed to explain the "failures" to self-regulate when metacognition is seen from an individual differences perspective. I suggest this is only a first step and does not yet incorporate an analysis of context. I concur with Carr (2000) that the concepts 'learning narratives' and 'learning scripts' provide one way of mapping the terrain between the individual and the sociocultural environment (for example the classroom), the mediated action (through which learners edit, selected from, and alter the educational setting, while at the same time the activity changes the learners), and thereby help us to better both the individual learner and the learning environment.

Here a narrative stance offers a more productive articulation between individual narratives, discourses of the local context, wider societal discourses and even perhaps the particular contribution of those who have studied metacognition and learning.

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