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Negotiating interest in learning: Classroom community, peer group and personal contexts

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Abstract

When interest in learning is conceptualised from a sociocultural perspective, the focus shifts to dynamic processes of development. Particular emphasis is placed on the affordances and constraints co-created in the structuring of the social world and the actions and choices of individuals. This channeling, or canalising, process of interest development is reflective of the values of multiple communities in which individuals participate, as well as the meanings and shared purpose negotiated in specific learning contexts. This paper draws on a study that explored the social nature of the emergence, development and maintenance of interest amongst students and their teacher in a classroom learning community. Qualitative data were collected over time to investigate the ways in which teacher actions, collaborative student activities, and individual student actions interacted to create and canalise interest development. Analysis and interpretation of this data were designed to contribute to the re-conceptualisation of interest by considering and extending key notions of sociocultural theories. An important issue raised by Valsiner (1992) is that we can only recognise interest once it is externalised in particular contexts, which presents a problem in studying its emergence and development. This issue is revisited in this paper as a theoretical and methodological challenge.

Introduction

The study of interest provides one approach to considering motivation, cognition and affect during learning. The current dominant conceptualisation of interest as situational and individual (Hidi, Renninger & Krapp, 2004) incorporates a notion of context, with situational interest defined as arising from object-based interactions in a particular context. Here, context commonly has referred to the specific topic of interest, the type of task or the written and visual presentation of material, which has been the case especially in text-based interest research (for example, Harp & Mayer, 1997). The concept of individual interest also acknowledges context, in that this is a more enduring and personal form of interest in a particular object or topic that is evident across situations and time. Context in studies of individual interest has physical, social and temporal aspects and contributes to the distinction between situational interest, which is more context-specific, and individual interest, which is evident across contexts. In both types of interest, emphasis appears to be placed on context having a unidirectional impact on the interest of individuals. In this paper, however, we contend that a sociocultural notion of context differs from

the way that context is currently conceptualised in interest research and that this has implications both theoretically and methodologically for the study of interest. Firstly, we discuss notions of context from the perspective of sociocultural theories and distinguish this perspective from social influence approaches that are more evident in motivational research. We then more specifically consider how context has been articulated in a study of interest in a classroom learning community and briefly explore some of the theoretical and methodological challenges of studying interest over time in an authentic learning environment. Finally, we present an episode from this research to illustrate the ways in which the definition of context has contributed to data analysis and interpretation.

Notions of context: distinguishing sociocultural and social influence approaches

Sociocultural theories provide an 'inherently contextualist metatheoretical perspective', in that 'every aspect of the context in which understanding is developed is, at some level, part of that understanding' (Hickey & McCaslin, 2001, p. 41). This broad, encompassing notion of context also is emphasised in the sociocultural perspective of Rogoff (1990, 1995, 1997, 1998) but with the possibility of more specific focus on aspects of context addressed through the notion of planes of analysis. Three planes – personal, interpersonal and community/institutional – are proposed by Rogoff. The personal plane focuses on individual change through the process of participation in an activity, while the interpersonal plane focuses on the communication and coordination between individuals to afford or constrain participation. The community plane focuses on institutional practices and values that have developed over time. Rogoff argues that individual effort and sociocultural activity are mutually embedded, so that it is not possible to separate personal or individual activity from interpersonal or community processes. The notion of planes of analysis, however, makes it possible to foreground or focus on one of the planes for closer consideration, without losing sight of the other planes and therefore allows for differing levels of specificity. Rogoff (1990) uses the analogy of the forest and the trees to illustrate this notion of mutual constitution and planes of analysis. To further articulate her analogy, it is possible to more closely study a particular tree within the forest, or to consider a cluster of trees within the forest, or the entire forest made up of many individual trees and clusters. At no point, however, can we study a tree without considering its place in or relationship to the wider forest, or the forest without considering the interaction of the trees and other living and non-living things within it. A similar notion is captured by Valsiner (1998) through the concept of 'inclusive separation of the participants and the field of participation' (p. 353), which indicates that we can distinguish the parts but cannot understand these in the absence of the whole. The individuals and other aspects of the context thus are mutually constituted (Matusov & Rogoff, 1995), rather than independent influences on each other.

Sociocultural theories also emphasise learning as participation in the activities of particular communities of practice and such communities are in themselves contexts for learning and development. It is within the activities of communities of practice and the interactions of participants that 'zones' that afford and constrain development (Valsiner, 1997a; Pressick-Kilborn & Walker, 2002) are co-created. It is also within these activities that the dynamic, bidirectional process of internalisation/externalisation (Valsiner, 1997b) takes place, by which the social and personal domains interact through active, constructive personal meaning systems

(Pressick-Kilborn, Sainsbury and Walker, in press). As such, we claim that motivation originates in social interaction in communities of practice (Pressick-Kilborn & Walker, 2002), as individual or intrapsychological functioning derives its existence and form from social or interpsychological processes (Wertsch & Penuel, 1996). This understanding of motivation as fundamentally social (Walker, Pressick-Kilborn, Arnold & Sainsbury, in press) is a point of difference between 'contextual' theories, which include sociocultural approaches, and 'contextualizing' theories (Valsiner & Winegar, 1992), which emphasise the *influence* of the social context and maintain a commitment to motivation as essentially an individual phenomenon (Walker et al, in press).

Contextualizing theories are evident in recent motivational research in which a broader understanding of context has been incorporated when compared with previous studies. For example, the recent research of Turner and her colleagues (Turner, 1995, 2001; Turner, Meyer, Cox, Logan, DiCintio & Thomas, 1998) incorporates an emphasis on the social, cultural and physical dimensions of motivation. Turner (2001) recognises educational contexts as including 'social elements such as teachers and peers, cultural elements such as norms and expectations, and instructional and materials elements such as content area, curricula and tasks' (p. 85). Methodologically, this is reflected in the situating of her research in authentic classroom settings and the use of qualitative methods to develop in-depth understandings of the context. Significantly, rather than regarding context as background to a focus on the self, Turner (2001) argues that motivational research needs to meet the challenge of a more situative perspective, in which notions of self and context are integrated. This aligns with Rogoff's and Valsiner's views of the inseparability or 'inclusive separation' of the individual and context. It is evident, however, that while Turner's research draws on sociocultural theories, her studies do not take the conceptual step of theorising motivation as fundamentally social.

Many recent 'person-in-context' (Volet, 2001; Meyer & Turner, 2002) motivational studies are similarly characterised by a contextualizing or 'social influence' perspective (Rogoff, 1998), which differs from a sociocultural perspective (Sainsbury & Walker, 2004; Pressick-Kilborn et al, in press; Walker et al, in press). The former perspective views individuals, their social partners and the sociocultural context as more independent 'influences' or factors on an individual's development, while the latter emphasises an integrated, complex process which can be approached from differing angles or focus points in analysis (Rogoff, 1990). We argue that a sociocultural perspective views motivation as being co-created and developing in multiple and overlapping contexts. This perspective differs from the view that individual and contextual factors *influence* each other and can be considered independently. From a sociocultural perspective, the interdependent relationship and bi-directional transactions between the individual and context *create* the experience and development of motivation and motivating events.

Articulating context in a study of interest development from a sociocultural perspective: Theoretical and methodological considerations

The qualitative study of interest development on which this paper is based has drawn from both Rogoff's and Valsiner's understandings of context and the interdependence of individual, interpersonal and community development over time. Context has been conceptualised firstly within the activities of grade 5 students and their teacher as they engage in science and technology lessons in an inner Sydney school. In this regard, the context is understood to be the on-going, 'real-life' interactions amongst the students, their teacher and the processes and content of learning about electricity and energy conservation (term 1, comprising 10 weeks) and eggs, egg-laying animals and the role of zoos (term 2, comprising 10 weeks). The processes of learning include the approaches planned and taken by the teacher and appropriated by the students, the nature of the tasks and the extent to which there are opportunities for negotiation and choice, the physical materials (books, electrical circuit components, internet etc) and environment (classroom, playground, excursion site) and the other people involved (peers, teacher, researcher, guest speaker, e-mail expert). Participant observation during weekly science and technology lessons enabled relevant data to be gathered.

Secondly, in this study of interest development context has been defined through peer group interaction and the emergence of norms, values and relationships within small groups engaging in activities. The groups varied in size and purpose; for example, students selected a friend for a 10 minute reflective discussion within a lesson, groups of four were selected by the teacher to complete a number of hands-on tasks for the duration of a lesson or groups of varying sizes formed to design and make an electrical product over several lessons. It was evident that the context for the emergence, maintenance and development of interest was co-created within peer groups through what they individually chose to share or externalise (Walker et al, in press). Participant observation, audio and video recordings of small group interaction and interviews with students enabled relevant data to be gathered.

Thirdly, context has been defined in terms of the personal experience and the transformative, dynamic internalisation process (Valsiner, 1997b) by which the individual's relationship with the world is reorganised. The focus in this context has been on the active, constructive personal meaning systems as individual students participate in the learning activities of the classroom. This focus on personal meanings and the intrapersonal world allows consideration of individual trajectories of interest development, which both contribute to and are contributed to by the trajectories of small group and classroom community development. Various strategies for student reflection and interviews with students during and following the main phase of the research enabled relevant data to be gathered.

On all three planes of focus highlighted above, context has been conceptualised as canalising, or channelling, interest development. Canalisation by the social world and the intrapersonal process of self-canalisation are notions used by Valsiner (1992) to capture the ways in which individual development is promoted and constrained through participation in activity. These notions help to explain how the context is created by the structuring of the social world and the actions and choices of the individuals involved. A theoretical and methodological challenge faced by

researchers studying the development of interest identified by Valsiner (1992) is that we can only recognise interest once it is externalised in particular contexts. This creates the need to collect data over time then 'back track' in analysis, in terms of researcher field notes, interviews and previous recordings of interaction, so that the emergence of interest can be considered and evidence of its development and maintenance can be identified. Attempts to capture the contextual externalisation of interest in the present study were also made by asking students to retrospectively rate their level of interest in the key activities in each unit. This allowed students to contextualise their experience of interest in relation to the ongoing activities in the learning units, and comparisons with ratings made at the time of the lesson on two occasions showed similarities with retrospective ratings for individual students.

How a sociocultural view of context created a lens for the collection, analysis and interpretation of data in the present study

Studying the classroom community, peer group and personal contexts in the present research enabled interest to be investigated at these different levels of focus, while at the same time maintaining a view of interest as fundamentally social and the individual and social worlds as interdependent and co-constitutive. To briefly illustrate the insights made possible through this approach, affordances and constraints on interest development in the eggs, egg-laying animals and the role of zoos unit will be considered in relation to the class activities (community plane), a small group activity (interpersonal plane) and Cathy's participation (personal plane).

Class activities in the eggs unit

This 10 week science and technology unit was designed by the class teacher to have four main stages.

(1) Exploratory activities: These tasks helped to establish what the students already knew about eggs and then engaged them in devising and conducting fair tests (experiments) and investigations to provide some shared class experiences. Students worked individually and in groups in this stage of the unit, with whole class discussions as well.

(2) Students' questions about egg-laying animals and personal research: The students chose an egg-laying animal, which would be their focus for research. Using a 'snowballing' technique, groups of 2 then 4 then 8 students negotiated three 'common' research questions that would be addressed by all class members, which were then put to the class and discussion to decide the final 3 questions took place. The students then identified two additional personal interest questions to guide their research. The students were given small 'data booklets' in which to individually record their research questions and information gathered. Books, websites and the zoo were resources commonly used by students in their research.

(3) Excursion to Taronga Zoo: This one-day excursion was embedded in the students' on-going research, the students firstly visited the education centre. The staff at the education centre had been sent the students'

common questions in advance and the presentation made to the grade 5 class by the staff member was responsive to the focus of the students. The presentations featured case studies of live egg-laying animals. The students then spent the remainder of the day in groups of approximately 10 and followed a route that they had planned in advance. Each group was accompanied by a teacher or the researcher. The students knew that they would be designing and making model zoo enclosures for their chosen egg-laying animal on return to school.

(4) Designing and making a zoo enclosure: The students drew on their research and the zoo visit to design and make a model of a zoo enclosure that would meet the habitat and breeding needs of their chosen animal. The students created their models individually, but worked in groups with peers who had chosen similar animals; for example, all of the students who had chosen birds sat and talked together when planning and making their enclosures. In the final lesson, a grade 5 zoo was created in the classroom, with students working together to create an enclosure 'locale' and then visiting one another's enclosures to record questions/comments. The whole class then had a discussion, facilitated by the teacher, in which questions could be posed to enclosure designers.

An 'interactive noticeboard' at the front of the classroom was continually developed by the students throughout the unit. In the initial lesson, the students wrote statements of 'fact' about eggs and questions about eggs. They discussed these in pairs, then each selected a 'fact' and a question to record on an egg-shaped piece of cardboard which were then displayed on the noticeboard. Throughout the unit, students could challenge facts or respond to questions by adding new egg cards to the noticeboard, on the proviso that they included evidence for their claim. The evidence frequently came from their research and class activities, such as the video watched in lesson 3.

The overall structure of the unit, the learning experiences devised and the availability of certain materials afforded and constrained the possibilities for students' interaction and engagement in the context of the tasks and the content focus. For example, in each stage of the unit, there were opportunities for student choice; choice in peer group composition, choice in the more specific focus of investigation and research, choice of the route and activities at Taronga Zoo, and choice in the materials used in making model enclosures. These choices made by groups and individuals contributed to the learning context. Importantly, the teacher's decision to build in choice and possibilities for negotiation created opportunities for the emergence and development of interest in both the content and process of learning about eggs and egg-laying animals. Furthermore, opportunities for interaction with peers, the teacher and experts at the Zoo, engagement in hands-on activities and with 'the real thing', and an explicit, purposeful relationship between different stages in the unit provided students with a learning framework that afforded the development of interest. There were possibilities for making personal connections with the content and process of learning and for developing value.

Small group interaction in the eggs unit: What's inside an egg?

In this particular task within lesson 3, the students were each given a raw hen's egg to dissect. To prepare the students for this hands-on investigatory activity, an informative video about eggs had been shown and the class teacher had subsequently led a class discussion about 'parts of an egg to look out for'. The parts were recorded by the teacher on the chalkboard for all students to refer to during the dissection task. There was general anticipation and excitement in the classroom as students each gathered their egg on a plastic plate and moved to a clustered group of students with whom they were expected by the teacher to share their discoveries during the dissection task. Most students enthusiastically began the task, cracking their egg and using their fingers to separate and identify the different parts. Other students, such as Eleni, were initially reluctant to use their fingers and when Philippa suggested to Eleni that she find a paper clip to use as a 'prodder', Eleni followed up her suggestion. By the end of the activity, however, Eleni was holding the yolk in her hand and carefully wrapping half of her egg shell in a tissue to give to her brother at home. Within these groups, various discoveries were made at different times and loudly and excitedly shared with others in the group. Terms recorded on the blackboard, such as 'chalaza' and 'membrane', were being used by students. There was much laughter and squealing as well! The teacher and researcher were frequently called over to groups, often with urgency evident in the students' desire to share what was of interest at that moment. Sufficient time for the dissection task was allowed in the lesson so that the students could 'play' and when it came time to pack away, some students developed a side investigation at the garbage bin. They each held the yolk by its membrane over the bin and then waited to see how long it would take to break. As Anna walked back to her desk, she exclaimed, 'That was the best thing ever!' The lesson ended with a teacher-led class discussion about the function of each part of an egg that had been located.

The interpersonal context established in this task created opportunities for interest to develop, through the responsiveness of peers and teachers to certain lines and focus of activity initiated in small group interaction. The tactile experience of dissecting a real egg, the enjoyment of the activity, the use of specific terms and the time to develop and pursue side investigations promoted a sense of shared experience based on interest in the content and process of the task. There was an explicit purpose in terms of the teacher-devised task, but also scope for negotiation of purpose within the clusters of students, evident in the yolk membrane strength testing at the conclusion of the lesson.

Cathy's participation in the eggs unit

For Cathy, science was consistently nominated in main phase and follow-up interviews as one of her favourite subjects, mainly because of 'experiments', a term she used broadly to describe any hands-on activity. Cathy's interest in science was associated with novelty - 'Science is interesting when I'm learning something new, like something I've never heard of about my animal' (reflection, 15/6/01) – and active hands-on engagement - 'I always think 'When are we going to do our enclosure?' because I get really excited because a really want to make it' (reflection, 15/6/01). Cathy's focus and purpose during the designing and making of enclosures was evident in class, as she worked on her model at her desk with her design plan laid out

on her chair for ease of reference. Cathy's interest in learning about eggs and egg laying animals also was evident beyond the classroom, as she later recalled the Zoo excursion as an opportunity to have '*fun* while you were learning as well' (interview, 13/9/02). She also showed that she was interested through her initiative in engaging in related activities in her own time. After watching the video about eggs in lesson 3, Cathy was one of two students in the class who conducted an egg experiment shown on the video at home with her sister. Following lesson 4, she went to the school library at lunchtime with two friends to look for information to help decide which egg laying animal to research. When asked what she meant when she talks about students being interested, Cathy replied, 'They're really wanting to know what's going on, and they're happy, smiles on their faces and stuff' (interview, 23/11/01). Cathy's self-reported interest ratings on a 7 point Likert scale show that throughout this unit, her interest level was overwhelmingly positive and ranged from feeling neutral (two tasks in which she was relatively passive – listening to a picture book being read aloud and receiving her research data booklet) to feeling interested (22 tasks experienced as either 'a little interested', 'interested' or 'very interested'). At no point in the unit did she rate herself as feeling uninterested.

Aspects of the interpersonal and community planes were contributing to Cathy's experience of interest in learning about eggs and egg-laying animals, canalising her development in the context of the unit and activities. Tasks within the teacher-designed unit developed personal meaning for Cathy and she purposefully engaged in the research and design and make activities. Furthermore, self-canalisation processes also are evident, through Cathy's personal choices to engage in activities related to the unit focus in her own time. Affective aspects of interest are particularly evident in Cathy's experiences, with fun, enjoyment and a desire to engage in learning activities expressed. Cathy's individual choices and actions also were contributing to interpersonal and community planes. For example, on seeing Cathy's active use of her enclosure design plan during the model construction phase, her teacher alerted other students to the need to refer to their own plans and record modifications as necessary. Cathy also was encouraged by the teacher to speak with her peers about the egg experiment that she tried at home.

Implications for research and conclusion

A sociocultural approach to conceptualising interest has implications for research, in that the nature of research questions change to focus on development and dynamic transactions between individuals and the social world over time. There is increased emphasis on processes of development, rather than outcomes, and as such, qualitative or mixed method approaches may be more suited to investigating interest from a sociocultural perspective. Data collection strategies that are able to capture the fundamentally social nature of interest and the way that this is transformatively internalised/externalised by individuals need to be incorporated. Authentic contexts, in which activities are on-going and hold wider meaning in the 'real lives' of research participants, are also more likely to be studied in sociocultural research, in the place of experimental settings established specifically for a short time period for the purpose of data collection.

In this paper we have discussed a sociocultural approach to conceptualising motivation and interest that is distinct from social influence perspectives that include

contextual factors as variables that impact on the individual. We have argued that sociocultural theories conceptualise motivation as fundamentally social, with individuals as constituents of the context that can be distinguished from other aspects when considered in relation to the notion of planes of focus, by which individuals are inclusively separated from the field of participation. We contend that conceptualising motivation, and interest in particular, from a sociocultural perspective presents particular methodological challenges and we have shown how one qualitative classroom-based study conducted over time has addressed some of these challenges.

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