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Doctoral student experience in Education: Activities and difficulties influencing identity development

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Abstract

This paper explores variation in the events or activities Education doctoral students describe as contributing to their feeling of being an academic or belonging to an academic community as well as difficulties they experience. The results (drawing principally on students in a Canadian research-intensive university though with some in a UK university) demonstrate a rich variation in multiple formative activities that are experienced as contributing to a developing identity as an academic, with many lying outside formal and semi-formal aspects of the doctorate. Yet, at the same time students report tensions in the very sorts of activities they often find significant and positive in the development of their identity. We see this analysis as offering much-needed insights into the formative role of cumulative day-to-day activities in the development of academic identity.

Introduction

There is much recent work that seeks to make sense of how higher education reforms are broadly changing academic work practices and identities (e.g., Barnett, 2000; Henkel, 2000). For instance, the mounting emphasis on publishing as distinct from research (Raddon, 2006) has implications for how doctoral students prepare themselves if they wish to become academics. And, while many doctoral students may desire academic careers, doctoral experience is increasingly shadowed by uncertain prospects regarding academic employment (e.g., Gluszynski & Peters, 2005). Thus, our interest is specifically focused on issues of the future academic workforce, given that in the two contexts in this paper doctoral students

overwhelmingly envision academic careers and our sample is of such individuals.

Evidence suggests doctoral students experience tensions and challenges in integrating into academia (McAlpine & Amundsen, 2007). They may hold incomplete understandings of academic life, experience mixed messages about the relative importance of teaching and research, and are often unsure if they can align their own values with those of the academy (Austin, 2002; Bieber & Worley, 2006). Despite formal training efforts to support their development, doctoral students do not perceive these efforts as comprehensive or adequate (Golde & Doré, 2001). Thus we need to understand better the experiences of and related challenges faced by doctoral students in the process of coming to understand academic practice and establishing themselves as academics.

This paper explores variation in the events or activities students describe as contributing to the feeling of being an academic or belonging to an academic community as well as difficulties they experience. How might these be characterized? Do they emerge from formal features of doctoral programmes, or are they located in more personally constructed routines and interactions? Data are drawn principally from a Canadian research-intensive university; however we consider findings from a pilot parallel study in a research-intensive university in the UK in order to assess the extent to which similar variation is evident in the two contexts, where there is some commonality but also difference in formal aspects of the doctorate. In Canada, formal aspects of doctoral programs include extensive course work, comprehensive exams, formal dissertation proposal and defense of that proposal before beginning dissertation research. In contrast, a traditional research PhD in the UK does not typically involve examinations in substantive content; taught components are generally limited to research training, often completed as part of a linked Masters' degree. There are some parallels though between the Canadian dissertation proposal and procedures such as upgrading or transfer of status in the UK,

and both degrees involve a final oral examination although these again differ in their nature.

Experiencing academic work and the development of academic identity

Underlying this inquiry is the perspective that engaging in academic work underlies one's developing identity as an academic (Paré et al., 2006). Doctoral students engage in multiple diverse activities or events that can be identified as academic and it is important to capture the cumulative formative influences of this range of events (McAlpine & Weston, 2000); 'event' and 'activity' are seen as equivalent in meaning with doctoral experience an accumulation of events and activities.

In undertaking this study, we conceived doctoral experiences as varying in formality: formal (e.g., required elements of a PhD such as coursework), semi-formal (e.g., meeting with a supervisor) and informal (e.g., discussion with a colleague); distinction explained in greater detail below. Documenting the student perspective on the informal and semi-formal activities, we believe, is essential to understanding fully doctoral students' experiences, since these activities reflect the everyday and taken-for-granted practices that are overlooked in more formal discourses around academic work. In other words, little is known about the extent to which important day-to-day activities and experiences contribute to students' sense of identity related to be(com)ing an academic.

Looking to one's chosen academic community for recognition is part of identity development (McAlpine et al., 2008). Especially useful is Tonso's (2006) characterization of identity development as framed by 'thinking about oneself, performing, and being thought of as' a particular type of person or member of a particular community because of its explicit attention to links between the individual and community. With a focus on academic identity, we generally expect events of identification as an academic, or feelings of belonging to an academic community, to be associated with positive feelings. Nevertheless, in undertaking a doctorate, students may encounter conflicts between individual and collective values and practices which may create tensions and challenges as to who one is becoming (Austin, 2002). Such tensions may be encountered within a particular workplace activity or across such activities if they generate , for instance, competing demands. Since such difficulties may be significant in reducing student motivation and interest in academic work, and confidence in attaining career and other goals, we are also interested in student reports of experienced difficulties.

We find it helpful to think of both significant events and difficulties as situated within three different environments which map onto the nested contexts discussed by McAlpine & Norton (2006): departmental/disciplinary; institutional and societal/international contexts. McAlpine and Amundsen (2007) use this framework in a study examining Education and English doctoral student experience. Their findings suggest that both positive (pleasure) and negative (frustration, difficulty) affect may be associated with the expression (or lack of expression) of student voice within and across departmental, societal and disciplinary contexts. We see such experiences, whether positive or negative, as central to the development, affirmation, and sometimes contestation of academic identity. However, little research has attempted to explore the nature and range of such day-to-day events and activities that are relevant to the formative development of doctoral students' academic identity. Thus, in this study, we offer two windows into the development of doctoral students' academic identity. First we document the nature of and variation in experiences that doctoral students report contribute to their feeling of being an academic or belonging to an academic community. Then, we compare and contrast this with an analysis of the experiences students report as difficulties or challenges.

Methods

We draw on a subset of data from a large longitudinal research program involving social

sciences doctoral students and academics in Canada (and more recently the UK). Here, we explore data relating to only one discipline – Education – since detailed analysis within a bounded setting is an important first step before we examine disciplinary variation in future work.

Participants

The vast majority of our participants indicated aspirations to pursue an academic career. Participants were recruited via a range of methods (general invitation, snowballing, etc.), and overall are generally reflective of the gender, age, racial/ethnic nature of the doctoral populations in the two chosen institutions, and indeed the doctoral population more generally. In the Canadian study, participants were 20 students enrolled full-time in a Faculty of Education. Of these four were completing or had just completed required coursework, four were engaged or had just completed their candidacy requirements of comprehensive exams, one was engaged in a required internship, two were preparing dissertation proposals, and nine were working on various aspects of their dissertation (data analysis, collection or writing). In the UK pilot study, three participants (from one Department of Education) completed the data collection task; one participant in the research design stage, one doing fieldwork, and one writing up the thesis. Despite the small number of UK participants incorporated in this analysis we feel the data are sufficient to consider whether the focus in Canada on significant event and experienced difficulties is productive in other contexts.

Data collection and analysis

Consenting participants in Canada and the UK were emailed once a month with a request to complete an attached questionnaire - a structured logging tool documenting various facets of their experience and feeling over the course of a week. In Canada, these logs were completed for up to seven months; reported here are findings emerging from 78 logs (across 20 individuals, between one and seven logs per person). In the UK, logs were similarly completed once per month, and we draw on six logs (between one and three per individual). In all, we draw on 84 logs completed by 23 individuals in two institutions.

We concentrate in this paper, as noted earlier, on data pertinent to understanding the variation in activities related to feeling like an academic and difficulties students faced. The specific wording of the two items analysed here is as follows:

- "This week, the most significant event contributing to my feeling of being an academic or my belonging to an academic community was …"
- "Please indicate any difficulties you encountered this week"

Canadian and UK databases were kept separate. MAXqda software was used to assess coding consistency, explore frequency distributions and create visual/numeric representations of cooccurrence of codes. Our attention focused on variation across logs rather than across individuals (although we remained attentive to whether particular issues arose across the group or were consistently associated with certain individuals). With respect to Canadian data, preliminary joint coding was undertaken to establish shared understanding of coding assumptions (e.g. what constitutes a unit of analysis). Once the basic ground rules for analysis had been set out, all Canadian responses were independently coded, the results compared, and adjustments made (either to allocation of data to codes or definition of codes). By this stage 100% agreement between the first two coders was reached. A similar process was undertaken in the next stage, more interpretive and conceptual this time, in which codes were grouped into clusters within the two categories of 'significant events' and 'difficulties experienced' (explained below); note these categories represent the two items being analyzed. After this the third author was provided with a subsample (just over 10%) of the Canadian logs, and response data were blind coded using the coding scheme. A small number of discrepancies were identified which led to refinement of definitions and some re-coding. After this, a further check of all data was done for those codes where there had been discrepancies, again until 100% agreement (this time between three coders) was reached.

The UK data were initially coded using the categories created and defined in the analysis of the Canadian data, but with additional codes within them being created as these emerged from the data. This was done first by the third author, and then checked in its entirety by the first author until 100% agreement was reached on meaning of codes and assignment of data to codes and the forming of clusters (groups of related codes) within a category. Definitions were refined slightly and the Canadian coding re-checked. Throughout this process a codebook was created and maintained; it provided a common reference point and record of the evolving definitions of codes.

Findings and discussion

We begin with the category 'experiences that contributed to feeling like an academic or belonging to an academic community'. This is represented here by two clusters of codes: type of activity, and who the interaction was with. These are then contrasted with the second category, 'experiences students reported as difficulties' with six clusters: time issues, expressing negative affect, lack of/ difficulty getting resources, writing/ intellectual block, lack of support and other. Finally, we consider whether the findings demonstrate the potential of the approach on events and difficulties in different doctoral contexts.

Events contributing to feeling like an academic or belonging to an academic community It is worth highlighting that 77 out of the 84 logs reported events in response to this item, with all but two described in positive terms. Six 'N/A' or similar responses indicate that participants did not complete this item unless they felt there was something relevant to report (one response was uncoded). This suggests it was quite normal for our participants to experience something which (at least when reflected upon in the process of completing a log) they felt contributed to feeling like an academic or belonging to an academic community in a particular week. All responses to this item were coded according to type of activity. Some responses named more than one activity and each was coded separately (codes represented the activity rather than the complete response). Where additional information was volunteered in a substantial number of logs, this was coded separately (i.e., who the activity was with).

Types of activities: We distinguished activities according to degree of formality. Formal activities are often named as expectations or visible elements of academic work: they are typically planned, structured, public or semipublic, and documented; they have benchmarks associated with them such as criteria for acceptance, requirements for passing an exam, documented achievements one might put on a CV; these benchmarks apply to the individual involved in the activity. Semi-formal activities share the planned, public and structured characteristics of formal activities, but are not associated with particular benchmarks for the individual involved, e.g., attending a workshop. Informal activities may be taken-for-granted rather than explicitly named (although they would often be recognized as part of academic work); they can be spontaneous, unplanned, unstructured, and undocumented; they may be private or involve interaction with others but are not public or visible to the extent of formal and semi-formal activities, e.g., conversation with peers. The idea of a continuum of formalityinformality pre-existed the analysis, but our understanding and definition of these concepts and their distinctions was refined through the process of coding.

In the initial coding it struck us that activities being reported could be distinguished in another way as well. **Doctoral-specific** activities are those that are experienced by doctoral students but not members of academic faculty or staff. **General academic** activities could be engaged with by any academic, including (some) doctoral students. We do not imply that doctoral-specific activities are non-academic, or that they do not involve academic work. Combined, these two sets of concepts led to a six-way typology of activity, six different clusters. Within each cluster we grouped related codes (listed in Table 1); the codes arose in our data, and are not the only possible examples.

	Formal	Semi-formal	Informal
Doctoral specific	 submitting a dissertation or thesis submitting funding application (funds for doctoral students) teaching as a TA completing coursework finishing comprehensive examinations attending interview (graduate position/award) 	 student committee meeting non-conference presentation (e.g. to other students) attending workshops (e.g. external funding) research-related (e.g. meeting gatekeepers, working as RA, attending research meetings) attending someone else's oral defense meeting with adviser(s)/supervisor(s) 	 writing dissertation or thesis other doctoral-specific writing (e.g. proposal paper) conversations with student peers peer modeling academic roles comprehensive examination-related tasks reading/knowing literature (e.g. required course reading) reviewing work (e.g. thesis) adviser/supervisor approval of research or thesis ideas research-related (e.g. measurement issues in dissertation design)
General academic	 submitting conference paper submitting journal article submitting funding application (general research) conference presentation participating in departmental review teaching job offer/submitting application 	 acting as consultant conference attendance future job-related non-conference presentation (e.g. to undergraduates) meeting non-academics meeting academics (e.g. discuss joint writing) book editing conference organization collaborative book editing invitation to engage in other activities (e.g. teaching, presenting) 	 writing (e.g. journal/ conference papers, funding applications) reading/knowing literature reviewing work job application work (e.g. writing letters, prepare for interview)

Table 1. The six activity clusters (with codes emerging within each).

Readers will notice similar activities listed under both doctoral-specific and general academic formal/semi-formal/informal categories. We classed attending a conference as semi-formal (planned, structured, public), and presenting at a conference as formal (with the addition of benchmarks for the individual involved e.g., acceptance, listing on CV). The informal activity of writing a thesis chapter feeds into a formal activity when the thesis is submitted for formal assessment; writing a research grant or job application is informal but becomes public and subject to benchmarks (i.e. formal) when it is submitted to the funding body or employer. A response such as 'writing and submitting a conference paper' would be treated as denoting two activities - the informal writing and the formal submitting - and coded twice (exclusivity of categorization being maintained at the level of activity).

Table 2 shows the total frequency of all activities coded within each of the six types of activity for the Canadian and UK data and the combined total. We see in these numbers an initial indication that the variation in the types of experiences that contribute to doctoral students' feeling like academics or belonging to academic communities is similar across the two contexts. Frequency is of interest given that our goal is to look for patterns in the kinds of events students experience as significant as regards their academic identity and belonging. Given the difference in size of data-sets, we restrict our interpretation of frequency patterns to Canadian data, but draw on both Canadian and UK data in qualitative descriptions.

clusters or activity type, with qualifiers indicating how we see them as distinct. For

Table 2. Number of co	oded activities for each type
of activity.	

Type of activity	Formal	Semiformal	Informal
Doctoral specific	Canada: 6 (8%) UK: 1	Canada: 11 (15%) UK: 0	Canada: 26 (35%) UK: 1
	Total: 7 Canada:	Total: 11	Total: 27
General	11 (15%)	Canada: 10 (14%)	Canada: 10 (14%)
academic	ÙK: 1	UK: 5	UK: 0
	Total: 12	Total: 15	Total: 10

Numbers represent number of coded activities or events, overall total: 82.

example writing a journal paper can be done by academics and (some) doctoral students; writing a thesis chapter is specific to doctoral students. In other cases related activities span the Table 2 shows that over a third of the activities found by Canadian students to be significant to their academic identity were doctoral-specific and informal. In other words they are the sorts of activities that doctoral students do but academics do not, and they are often everyday, less public, more routine types of activity. This said, we can see from Table 1 that many of these contribute towards more formal activities – as with thesis writing or work towards comprehensive examinations. The smaller number (8%) of doctoral-specific formal activities may reflect their nature as often one-time only events (such as thesis submission, passing comprehensive exams) – general formal activities like submitting journal articles, conference presentations may be experienced multiple times by doctoral students (thus the lower percentage does not necessarily mean these activities are less significant than others in themselves). There is a relatively even spread across doctoral-specific semi-formal and all general academic types of activity, indicating overall that identity-forming experiences span a wide range of types of activities.

That over half the Canadian activities were coded as doctoral-specific is interesting as it indicates that events and experiences specific to doctoral study are important to doctoral students' development of academic identity. This said, we do not wish to downplay the significance of activities (just under half of those reported in the Canadian data) that are not specific to doctoral student status, nor the fact that 78% of the reported events can be characterized as semiformal or informal. These findings suggest that academic identity development involves a broad range of experiences, and that it is the *range* that is important rather than the repetition of a small number of particular activities.

In Box 1 we provide examples of responses assigned to each type of activity (selecting the most commonly occurring codes where relevant). These examples include Canadian and UK responses and offer readers access to students' own descriptions; codes applied to each are indicated in square brackets, enabling readers to see the relationships between data and codes. Participants chose their own pseudonyms.

Box 1. Examples from data relating to each activity type

Doctoral-specific formal activity

"Completing my oral comprehensive exam" (Monika, Canada) [finishing comprehensive examinations]

"The experience of the interview for the graduate scholarship" (@mor, UK) [attending interview]

Doctoral-specific semi-formal activity

"Having my thesis feedback meeting with my cosupervisors" (Diane, Canada) [meeting with adviser(s)/supervisor(s)]

"Attending the oral defense of a fellow grad student/friend that I have known for a while" (Aileen, Canada) [attending someone else's oral defense]

Doctoral-specific informal activity "The fact that I had confirmation from wellknown experts in my field that the literature I had identified so far for my topics was pretty complete" (Nancy, Canada) [reading/knowing literature]

"That all my friends here were slightly isolated trying to put things together and submit their transfer papers" (@mor, UK) [other doctoralspecific writing]

General academic formal activity

"Teaching my own class and teaching my supervisor's class while he was away at a conference" (Nellie, Canada) [teaching] "Sending out four more job applications" (Holly, Canada) [job offer/submitting application]

General academic semi-formal activity "Being invited by one of my committee members to give a presentation next semester in an undergraduate class about my teaching experiences" (Barbara, Canada) [invitation to engage in other activities] "Attending a poster conference" (Poppy, UK) [conference attendance] General academic informal activity "Preparing for a job interview" (Holly, Canada) [job application work] "The fact that I am actually writing these grant applications" (Nancy, Canada) [writing]

All but two of the Canadian activities (and all of those from the UK) were reported in a positive light – consistent with our view that identity development and community belonging are typically associated with positive affect. One student (Monika, Canada), however, reported on two occasions a distinct feeling of not belonging. She wrote: "This idea of an academic community seems to me very superficial. I do not have such a feeling of belonging to an academic community", and in a later log, added "As I previously wrote I do not feel as part of an academic community or being an academic. I feel like a PhD candidate". This feeling was reinforced by participation in a committee of students responsible for organizing a seminar series. These examples, while unusual in our data set, demonstrate that positive identity

experiences and feelings of belonging are not necessarily a property of engagement in doctoral or academic work. While this case gives us cause to place caveats around our analysis, we do not feel this counteracts the general positive pattern reported above. We expand more on the difficulties students reported after reporting with whom the significant events occurred.

With whom the significant events occurred: While respondents were not asked to report who they were with when they experienced the event, in 39% of the events (29 out of 74 events reported in the Canadian data) explicit reference is made to individuals interacted with (as can be seen in some of the examples above). While it is tempting to infer interaction with particular individuals or types of people from the statements, we limit our analysis to those responses where individuals are explicitly named. This gives a robustness to the coding process, but it should not be inferred that the events where no individuals were referred to in this way were necessarily experienced in isolation.

Box 2. Examples of whom significant interactions occurred with (explicitly named)

"Meeting with a fellow PhD student who just put in her thesis (Aileen, Canada) [contact with peers]

"A conversation with my adviser" (Corrine, Canada) [committee interaction]

"Attending an academic conference of 3,500, presenting, and hearing/seeing some of the big names in the field" (Holly, Canada) [contact with outside experts]

"Leading a lesson as a TA for a large group of undergraduates" (Helga, Canada) [contact with undergraduates]

"A meeting with a prof and another student about figuring out how to analyze a data set and helping the students use the program and interpret the results" (Regina, Canada) [contact with faculty; contact with peers]

"Meeting with teachers at a local secondary school" (James, UK) [contact with non-academics/public]

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In the Canadian data there were 12 references to contact with peers (other doctoral students, friends), by far the most frequently referred to group. Committee interactions (e.g. meeting with adviser) were mentioned five times, as was contact with outside experts (academic leaders in the field). Contact with undergraduates (typically through teaching) was noted three times, while contact with other academics within the institution and interaction with non-academics is mentioned twice each. Examples of each of these codes are given in Box 2 (code names are indicated in square brackets). Of the two UK logs mentioning people in this way, one referred to non-academics and another to student peers.

Since explicit reference to particular people was not stipulated in the log item wording, and thus only emerged in 2/5th of the reports, we are tentative in our interpretation. Nonetheless we are struck by how important other peers seem to be in the experience of academic identity. This is perhaps unsurprising as the peer group may be the most frequent locus of interaction, but still we take heart from the positive and formative quality these interactions can have for students. This might also suggest that doctoral students tend to see their peers as other academics (of a sort) rather than as students who are distinct from and outside the academic community – again something we find encouraging. As expected, contact with working academics inside and beyond the institution arose: this involves the most direct form of interaction with what is explicitly identified as the academic community. Interactions with undergraduates and nonacademics seem to denote a sense of academic identity by virtue of positioning the student in an academic role in contrast to those around them. Thus, we see the development of academic identity as supported by interactions within the departmental academic community (which, on the basis of these responses, appears to include other doctoral students), and beyond it, in which case academic identity is reinforced both through difference (contacts with non-academics, those outside the university) and similarity (contacts with academics beyond the department and university).

Across the 84 logs, 62 contained a description of some kind of difficulty; 20 explicitly indicated no difficulty was experienced (all from Canada; one was unanswered and one uncoded). Participants completing more than one log either reported a mixture of difficulties and no difficulty, or a range of difficulties across all their logs. Many responses indicated several kinds of difficulty, and these were multiple coded (giving 110 code instances in the Canadian data and 18 from the UK). Here, we followed a more grounded approach rather than using a mix of a priori and emergent clusters and codes. Analysis of the Canadian data led to six clusters, as listed in Table 3 (also indicated is the number of coded difficulties within each cluster).

Table 3.	Clusters within the global category of
difficulty	<i>r</i> .

Clusters of difficulty	No. coded difficulties		Total No. coded
	(Canada	(UK	difficultie
))	S
Time issues	47 (52%)	8	55
Negative affect	18 (20%)	3	20
Intellectual/writin	11 (12%)	5	15
g block			
Lack of/access to	8 (9%)	2	10
resources			
Lack of support	4 (4%)	1	5
Other	3 (3%)	0	3
Total	91	19	110
	(100%)		

We again do not include the UK data in our analysis of the overall pattern (frequency), given the small number of individuals and maximum of three logs per individual in this case. Table 3 however, does show there are no contradictions between the two data sets, and is suggestive that similar variation could be expected in the UK context. Over half the Canadian responses mentioned something to do with time pressures of one sort or another, and this is consistent with writing about the doctoral experience more generally in the UK (Leonard et al., 2006). The codes attributed to 'Time issues' and the other categories are shown in Table 4.

Nearly one in five of the responses indicated some kind of negative affect; we are interested here in the character rather than the presence/absence of these affective responses as the item did not specifically ask for a description of feelings (so we cannot read the absence of these codes as an indication of no negative associated affect). In some cases a negative feeling alone was named as the difficulty encountered. Table 4 also shows the codes created under this category, and therein the variation in and scope of negative affect we found. Following these in frequency were difficulties related to thinking/and or writing, indicating a degree of mental challenge in doctoral work that is to be expected (after all, it is not designed to be easy!). Difficulty accessing required resources and forms of support were each mentioned several times.

More than half the difficulties mentioned were coded as time issues, so we examine below this aspect of difficulty. The code breakdown shows difficulties centred on reconciling the multiple demands of different activities. Difficulties juggling various requirements of the doctorate, and particular doctoral tasks taking time or progressing slowly exemplify difficulties within the activities oriented around doctoral work (proposal, research, thesis, etc.). Difficulties managing doctoral work and other responsibilities can be interpreted as arising across different types of activities. To us this indicates two important issues. First, doctoralspecific work itself can pose dilemmas and difficulties for students in terms of the time available to do their work. This is particularly significant given pressures on institutions (and students) to reduce completion times. Second, we can see that the time pressures faced by students are not necessarily located within the sphere of activities directly related to their doctoral work, but also reflect other commitments, whether within the academic context (teaching) or beyond it.

Table 4. Codes comprising the six clusters from the global category of difficulty.

		assigned cod
Cluster	Codes	
Time issues	- general reference to	
	lack of time	
	- time management	Box 4. Exam
	 choosing priorities 	experienced
	- work taking a long	
	time/slow progress	Time issues
	- paid job/non-PhD	"Getting a gra
	commitments	so many hour
	- number of	activities that
	tasks/activities (within	impossible to
	doctorate)	Canada) [time tasks/activitie
	- time lost due to other	"The paper I a
	people	expected" (Pc
Negative affect	- disappointment	time/slow pro
	- feeling isolated	Negative affect
	- discouragement	"Not enough
	- not belonging	Department, s
	- fatigue	Canada) [feel
	- frustration	"Brain drain,
	- anxiety, concern	challenges ass
	- lacking motivation	anxious" (Hol Intellectual/w
	- negative experience of	"I did feel at a
	proposal defense	write more fo
Intellectual/writing	- both intellectual and	ideas" (Helga
block	writing	fatigue under
	- writing only	"Usual writin
	- intellectual (general)	that, so that w
	- confusion (UK only)	[writing only]
	- concentration (UK	Lack of/acces
	only)	"An importan
Lack of/access to	- funding	and I had to re "Practically n
resources	- accessing information	program abou
	- office space	[accessing inf
	- literature	Lack of suppo
Lack of support	- encouragement	"Well to be he
	- feedback	support/press
	- permission for research	to actually do
	population	they would no
Other	- health	even the acad
	- data overload	thesis at all. N
-		meeting with

Box 4 provides examples responses for each cluster within the category of difficulty, and the assigned codes are indicated in square brackets

Box 4. Examples relating to difficulties experienced by doctoral students <i>Time issues</i> "Getting a grasp on time management; there are only so many hours in a day, and that the number of activities that are part of a doctoral degree are almost impossible to do given time constraints" (Charles, Canada) [time management; number of tasks/activities] "The paper I am working on is taking longer than I expected" (Poppy, UK) [work taking a long time/slow progress] Negative affect "Not enough social opportunities with peers in the Department, so feeling a little isolated" (Barbara, Canada) [feeling isolated] "Brain drain, exhaustion, frustration – all mental challenges associated with being overwhelmed and anxious" (Holly, Canada) [fatigue; anxiety, concern] Intellectual/writing block "I did feel at an intellectual dead-end. I knew I had to write more for my paper, but I had no more energy or ideas" (Helga, Canada) [both intellectual and writing; fatigue under negative affect] "Usual writing block, actually managed to write past that, so that was encouraging" (Aileen, Canada) [writing only] Lack of/access to resources "An important book I had at the library was recalled and I had to return it" (Barbara, Canada) [literature] "Practically no written information provided by my program about [] internship sites" (Diane, Canada) [accessing information] Lack of support "Well to be honest, I have no support/pressure/encouragement from my committee to actually do anything on my thesis. I am not sure they would notice before the end of the semester, or even the academic year, if I made no progr	
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The value of the approach

We described at the beginning our interest in knowing whether the focus of the study on significant events and experienced difficulties would be productive in contexts where doctoral study was not as highly structured as in the Canadian/ North American context. The pilot in the UK demonstrated to our satisfaction that parallel data collection is feasible and can enable a more comprehensive international representation of activities that contribute to feeling like an academic. Thus, we will extend the scope of the UK study to enable more robust examinations of similarities and differences across national boundaries.

Conclusions

In this paper we have explored a broad range of events and activities that doctoral students say contribute to their academic identity, given our interest in understanding the experiences of doctoral students who envision academic careers. Much emphasis in the literature on doctoral education is placed on aspects that fall under the purview of program directors, supervisors, committees - the easily recognizable, (semi)public, more structured and often benchmarked features of doctoral experience. Our findings suggest that these are indeed important in doctoral students' developing academic identities. However, data from both Canada and the UK show that the events students find significant in their identification as academics extend beyond formal and semi-formal aspects of the doctorate, and here we feel lays a significant contribution. We have discussed the ways informal activities contribute to identity development and shown that these may be the sorts of things that only doctoral students do. Furthermore, we have demonstrated how for those doctoral students who engage in them, other more formal and semi-formal aspects of general academic work are also important in developing a feeling of belonging to academic communities. The generally positive affect related to these experiences appears to demonstrate links between thinking about oneself as an academic and performing as an academic (Tonso, 2006).

This picture is enriched by the unsolicited naming of those interacted with as it makes evident the importance of 'the other' in such experiences. In the 39% of events that referred to others, only a small number named committee members (including supervisors); the most frequent individuals named were peers. In terms of the nested contexts model (McAlpine & Norton, 2006), this finding affirms the frequent assertion that doctoral students tend primarily to focus in their departmental context. At the same time, there was some occurrence of events engaging students with others in broader disciplinary or societal contexts (e.g., attending conferences, submitting a paper, acting as editor, speaking to the public). Such involvement we assert is key to establishing relationships and thus membership in an academic community. Thus, we believe overall the responses to the item about significant event are suggestive of all three of Tonso's (2006) dimensions of identity development: 'thinking about oneself as..., performing as..., and being thought of as...' (an academic); indeed, we see no reason why one event or activity might not involve all three simultaneously.

These findings are significant because they point to the range of activities and experiences that, through their informality or lying outside of the doctoral-specific realm, may not be particularly foregrounded in the awareness of those supporting doctoral students or monitoring their progress. We see important questions arising concerning the extent to which more general academic activities are conceived as part of doctoral experience. In light of the fact that doctoral students report not finding formal provisions comprehensive or adequate (Golde & Doré, 2001), what are the implications for development? To what extent should this range of semi- and informal activities be encouraged (given evidence of their formative qualities), or discouraged (given the time pressures we find associated with the doctoral experience more generally)? To what extent should those responsible for doctoral education facilitate and reinforce interactions within departmental

contexts and across societal and disciplinary contexts?

We hope future thinking will be informed by an understanding that doctoral students' academic identity is developed through such a wide range of activities, involving interaction with a variety of people within and beyond the academic community. The distribution of codes across participants suggests it is through this range of activities and interactions that doctoral students come to think of themselves, perform, and be thought of as academics.

The findings also seem consistent with our conception (Beauchamp et al., 2007) that doctoral students are participating in multiple concurrent activities, both academic and otherwise, which may engender tensions not just within but also across these different activities.

As regards lack of time, engagement in multiple activities with different purposes, roles and tasks is very much a part of academic practice, and thus we do not necessarily see the challenge of dealing with time pressure as something to be avoided in all instances since several participants reported an awareness of the extent to which lack of time for the multiple tasks and responsibilities of the PhD may parallel academic work more generally. Eraut (2007) has commented on the need for time management as a skill for lecturers to develop, and this was clearly a skill that these students were recognizing as important, and trying to develop. A recent report (Kearns et al., 2008) has demonstrated some success in helping students do so. Regarding the findings relating to negative affect, these are cause for concern, and mirror the pictures of traumatic, emotionally charged experiences documented elsewhere in the literature.

Overall these data support an earlier finding (McAlpine & Amundsen, 2007) that affect is an important aspect of doctoral experience. Similar variation in emotions has been reported in more experienced academics (Neumann, 2006): frustration and depression as well as exhilaration, thrill, and more muted feelings. What strikes us is that many students continue in their studies despite the difficulties they face. One might expect these experiences to be detrimental to their continuing, particularly given Austin's (2002) report that intrinsic motivation was an important rationale for doctoral students intending academic careers. We are intrigued by the balancing represented in these logs between the positive experiences of feeling like an academic/ belonging to an academic community and the challenging experiences of lack of time and negative affect. As academics, supervisors or program directors, to what extent do we make explicit what is a central experience of the doctorate and future academic work – the variation in affect from the pleasures of being acknowledged as an academic to the anxieties and frustrations of living with and reconciling multiple demands?

Final thoughts: We began with three key ideas:

- the accumulation of multiple formative experiences underlying one's developing identity as an academic
- identity framed by thinking about oneself as, performing as, and being thought of as an academic
- the potential for positive and negative affect in experiencing the values and practices of academic work.

The results demonstrate our achievement in documenting a broad range of formative day-today experiences that are experienced as contributing to a developing identity as an academic; we are intrigued by the rich variation we have found, with many lying outside formal and semi-formal aspects of the doctorate. In relation to Tonso's (2006) characterization of identity, many responses inherently denoted activities in which students thought of themselves as academics. Also documented were events in which students wrote specifically about performing academic work and projecting themselves as academics in interaction with others. Yet, at the same time we see tensions in students' engagement in the very sorts of activities they often find significant and positive in the development of their identity. Our next

steps will be to explore why certain experiences are deemed to be significant, and what students do (if anything) in the face of the difficulties they encounter. Nevertheless, we believe this analysis offers much-needed insights into the formative role of cumulative day-to-day activities in the development of academic identity.

References

Austin, A. E. (2002) Preparing the next generation of faculty: graduate school as socialisation to the academic career. *The Journal of Higher Education*, 73(1), 94-122.

Barnett, R. (2000). *Realizing the University in an age of supercomplexity*. Buckingham: SRHE and Open University Press.

Beauchamp, C., McAlpine, L., Jazvac-Martek, M. (2007, August). *Studying doctoral education: Using Activity Theory as a methodological tool.* Paper presented at the Conference of the European Association for Research on Learning and Instruction, Budapest.

Bieber, J. & Worley, L. (2006) Conceptualising the academic life: graduate students' perspectives. The *Journal of Higher Education*, 77(6), 1009-1035.

Eraut, M. (2007). Early career learning at work and its implications for universities. Student Learning and University Teaching. In N.Entwistle & P. Tomlinson (Eds.). *Psychological Aspects of Education – Current Trends, Monograph Series,* #4 (pp. 113-133). Leicester, UK: British Psychological Society.

Gluszynski, T., & Peters, V. (2005). *Survey of Earned doctorates: A profile of Doctoral Degree Recipients.* Ottawa, Canada: Statistics Canada.

Golde, C., & Doré, T. (2001). At cross purposes: what the experiences of today's doctoral students reveal about doctoral education. Philadelphia: Pew Charitable Trusts. Henkel, M. (2000). Academic identities and policy change in higher education. London: Jessica Kingsley Publishers. Kearns, H., Gardner, M., & Marshall, K. (2008). Innovation in PhD completion: The hardy shall succeed (and be happy!). Higher Education Research and Development, 21(1) 77-89.

Leonard, D., Metcalfe, J., Becker, R. & Evans, J. (2006). Review of literature on the impact of working context and support on the postgraduate research student learning experience. London: Higher Education Academy. McAlpine, L., & Amundsen, C. (2007). Academic communities and developing identity: The doctoral student journey. In P. Richards (Ed.). Global Issues in Higher Education (pp.57-83). NY: Nova Publishing. McAlpine, L., Jazvac-Martek, M., & Gonsalves, A. (2008). The question of identity: Negotiating roles and voices in evolving academic systems. In R. Barnett & R. Di Napoli (Eds.). Changing Identities and Voices in Higher Education (pp.113-123). London, UK: Routledge.

McAlpine, L., & Norton, J. (2006). Reframing our approach to doctoral programs: A learning perspective.

Higher Education Research and Development, 25(1), 3-17.

McAlpine, L., & Weston, C. (2000). Reflection: Issues related to improving professors' teaching and students' learning. *Instructional Science*, 28, 363-385.

Neumann, A. (2006). Professing passion: Emotion in scholarship of professors at research universities. *American Educational Research Journal*, 43(3), 381-424.

Paré, A., McAlpine, L., & Starke-Meyerring, D. (2006, April). *Entering the text: Learning doctoral rhetoric*. Paper presented at the Conference of the American Educational Research Association, San Francisco, USA.

Raddon, A. (2006, December). Drawing the boundaries in academic work: Individual views and experiences of teaching, research and administration. Paper presented at the Conference of the Society for Research into Higher Education, Brighton, UK.

Tonso, K. (2006). Student engineers and engineer identity: campus engineer identities as figured world. *Cultural Studies of Science Education*, 1, 272-307.

