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## **Shaping (reflexive) professional identities across an undergraduate degree program: A longitudinal case study**

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### **Abstract**

In our complex and incongruous professional worlds, where there is no blueprint for dealing with unpredictable people and events, it is imperative that individuals develop reflexive approaches to professional identity building. Notwithstanding the importance of disciplinary knowledge and skills, higher education has a crucial role to play in guiding students to examine and mediate self in relation to context for effective decision-making and action. This paper reports on a small-scale longitudinal project that investigated the ways in which ten undergraduate students over the course of a three-year Radiation Therapy degree shaped their professional identities. Theories of reflexivity and methods of discourse analysis are utilised to understand the ways in which individuals accounted for their professional identity projects at university. The findings suggest that, across time, the participants negotiated professional 'becoming' through four distinct kinds of reflexive modalities. These findings have implications for teaching strategies and curriculum design in undergraduate programs.

**Keywords:** Professional identities; reflexivity; reflexive practice; Reflection in undergraduate programs; Radiation therapy

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## **Shaping (reflexive) professional identities across an undergraduate degree program: A longitudinal case study**

### **Abstract**

In our complex and incongruous professional worlds, where there is no blueprint for dealing with unpredictable people and events, it is imperative that individuals develop reflexive approaches to professional identity building. Notwithstanding the importance of disciplinary knowledge and skills, higher education has a crucial role to play in guiding students to examine and mediate self in relation to context for effective decision-making and action. This paper reports on a small-scale longitudinal project that investigated the ways in which ten undergraduate students over the course of a three-year Radiation Therapy degree shaped their professional identities. Theories of reflexivity and methods of discourse analysis are utilised to understand the ways in which individuals accounted for their professional identity projects at university. The findings suggest that, across time, the participants negotiated professional 'becoming' through four distinct kinds of reflexive modalities. These findings have implications for teaching strategies and curriculum design in undergraduate programs.

### **Introduction**

Professional identity is a term used extensively in the literature, however it is not always defined and there is a paucity of research on how it develops (Trede, Macklin, and Bridges 2012). Identity is a deeply personal and individual concept, yet it is always shaped in relation to the social context such that individuals choose particular concerns, priorities and ways of being that are intertwined with their sociality (Archer 2000). In this way, it is useful to refer to identities in the plural as they are not fixed or singular, but rather they are shaped by persons in time and

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space and can be performed differently in different contexts (Threadgold 2003). When 'professional' is placed in front of identity, it signifies a particular (broad) context or discourse community (Chouliaraki and Fairclough 1999) in which identity is represented; it suggests some permeable boundaries that call for particular ways of being, yet these are always connected to our performance of identities in other places.

Professional identity, then, involves the understanding and application of particular disciplinary knowledge and skills that mark us out as members of a profession (Trede, Macklin, and Bridges 2012), including an understanding of accepted ways of knowing, relating and being in that field. Of course, once we understand, and are immersed in those accepted ways of that profession, we can (and should) choose to perform these practices as a professional in different ways as we mediate who is involved, what is at stake and what our priorities and motivations might be. Further, given the diversity and fluidity of professional contexts and knowledge, it is essential to shape professional identities that are reflexive (Archer 2007), that is, that include an ability to mediate both personal and social conditions in different times/spaces to make appropriate decisions (for ourselves and others) and take action (O'Meara 2015).

While professional identities are an ongoing and changing project for individuals, we argue that particular strategies can be utilised in undergraduate programs to help novice members of the profession to develop professional identities that are adaptable, reflexive and self-aware (Ryan and Bourke 2013). First, we discuss the role of undergraduate programs in shaping professional identities, and the utility of reflection and reflexivity in this process. Next, we use Archer's (2012, 2007) theory of reflexivity along with methods of critical discourse analysis (Fairclough 2003) to show how undergraduate students over the course of a three-year Bachelor of Radiation Therapy degree shape their professional identities through distinct kinds of reflexive modalities. We conclude with a discussion about the implications of these findings for teaching reflective and reflexive strategies for developing professional identities.

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### **Shaping professional identities in undergraduate studies: A longitudinal task**

Learning disciplinary content is recognised as an important aspect of developing professional identities, as is the ability to articulate this knowledge and apply it in real-world professional contexts (Trede, Macklin, and Bridges 2012). These elements of professional identity building form the basis of most undergraduate degrees. What is less well embedded in many degrees is the sense-making or degree to which internal frames of reference are drawn upon to understand self in relation to the profession (Eliot and Turns 2011) and in relation to other associated professions (Albrandt Dahlgren et al. 2006). As Bulman, Lathlean and Gobbi (2014) point out, theory and content knowledge cannot be applied 'off the shelf'; it needs to be thought through and used in particular ways in practice. It is the individual's understanding, belief in and mediation of this knowledge in practice with their own desires and motivations that positions them as a professional in that context. Moreover, such deliberations do not happen without relationship building, emotion and value judgement (Hancock and Walsh 2014) over time. The exploration of relationships, emotions and values in a degree program is complex. There is a blurring of public and private and often misunderstandings from staff and students about how much should be shared and how such highly personal aspects could be assessed (Fullana et al. 2014). Frameworks for reflective learning and reflexive practice can provide guidance in how the personal and professional can be mediated (Ryan 2014a).

Dialogic and collaborative reflective learning is well supported in the literature as a form of professional identity building (Bulman, Lathlean, and Gobbi 2014, Trede, Macklin, and Bridges 2012), including in the field of Radiography (Brackenridge 2007, Hamilton and Druva 2010). In positioning ourselves in relation to people, concepts and issues from the field, and by sharing these personal considerations, we open ourselves to deeper self-critical analysis of our identities as a professional in that field (Yancey 2015, Moffatt, Ryan, and Barton 2015). In this way, individuals can start to take intellectual and emotional risks in their engagement with the discourses and official knowledges of the discipline (Christie et al. 2014, Saltmarsh and Saltmarsh 2008). These types of learning and identity building are not isolated

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events, that is, they cannot happen in single subjects or assignments within a degree. Rather, these shaping practices both influence, and are influenced by, multiple intersections of knowledge, people and contexts throughout and beyond the degree program. Critical and active engagement with academics, with the literature, with other students and with professionals in the field can provide the necessary foundations for long-term analysis and shaping of self as a professional. Longitudinal studies in higher education, however, are not well represented in the literature (Christie et al. 2014). Those that do report on longitudinal approaches to learning or identity building, point to the complexities of 'becoming' as students mediate different viewpoints, experiences, persons, texts and contexts (see Christie et al. 2014, Crozier and Reay 2011, Thesen 2009) in an ongoing project on self in relation to context.

Novel or unpredictable experiences in a degree program can prompt students to question safe and secure identities over time (Christie et al. 2014). Intentional curriculum design can facilitate particular kinds of learners in different discursive communities (Donnison and Marshman 2013). Experiences that teach students to draw on their personal frames of reference along with their professional knowledge in different ways in different situations can enable new ways of becoming a (reflexive) professional. These experiences may be constituted by clinical placements whereby students encounter situations and people that are far beyond their personal experiences and may disrupt their worldviews. Other novel experiences may include tasks that ask students to identify and question their beliefs, attitudes and emotions in relation to professional issues or scenarios. In an academic context where content knowledge and technical skills are often prioritised, such experiences can have a profound and unsettling effect on students. It is in these jarring and embodied educational experiences that one can step back and look at self differently (Thesen 2009). Over time, one folds in these different experiences, actions and reactions to inform their responses in new situations. Research has shown that this process becomes an even more powerful learning experience when it is articulated through writing (Fullana et al. 2014, Vivekananda-Schmidt et al. 2011) and particularly when it is shared and discussed with others: a process of

Ryan, M. E. & Carmichael, M.A. (2015). Shaping (reflexive) professional identities across an undergraduate degree programme: a longitudinal case study, *Teaching in Higher Education*, DOI: 10.1080/13562517.2015.1122586

dialogic and collaborative reflection (Bulman, Lathlean, and Gobbi 2014, Moffatt, Ryan, and Barton 2015, Yancey 2015).

This research specifically aimed to:

1. Identify the ways in which undergraduate students represented their professional learning through reflective journals over three years
2. Ascertain whether and how undergraduate students were reflexive in their written accounts of clinical placement experiences across three years
3. Identify any changes in the ways that professional identities were represented by students in written reflections across the course of a three year undergraduate program

### **Understanding reflection and reflexivity in shaping professional identities**

People matter: Their virtues and ideas and contradictory ways of doing and being are important in professional contexts (Hancock and Walsh 2014, Shapin 2008). Shapin (2008) argues that in the field of science, the radical uncertainty means that those who work in this field must draw on personal values and attributes in these 'future-making practices' (303). Archer (2012) suggests that in every aspect of life we are faced with contextual incongruity and therefore there is no blueprint for how to make decisions and move forward in sustainable and satisfying ways. Such unpredictable and uncertain conditions mean that the ability to reflect on what is before us, weigh up the contingencies of the context and our level of investment, and reflexively choose a way forward, is imperative.

Archer's (1995, 2012) critical realist theory of reflexivity is useful in its explication of the ways in which individuals manage choices and make decisions in different contexts. She highlights the importance of both the concerns of the individual and the social structures or 'expected' ways of acting in a particular context. She doesn't see these structures as forces, but rather as reasons for acting, thereby positioning individuals as agentic (see also O'Meara, 2015). Reflexivity involves deliberating about possible courses of action, deciding what might be feasible at this time in this professional situation and then choosing a way forward. The subsequent

Ryan, M. E. & Carmichael, M.A. (2015). Shaping (reflexive) professional identities across an undergraduate degree programme: a longitudinal case study, *Teaching in Higher Education*, DOI: 10.1080/13562517.2015.1122586

deliberations about the effects of these choices constitute a form of self-analysis for professional learning and identity building, as this new knowledge is woven into the next course of action.

The decisions we make and the responses we have are constituted in internal conversations by three Ds: Discernment, Deliberation and Dedication (Archer 2007). Discernment occurs when we identify something of concern to us - a priority for now. Deliberation involves weighing up all of the mitigating factors, including our personal views, motivations and emotions, along with contextual factors, social norms and possible effects of our decisions. We sift through and decide what we are willing to concede or what we want to change or what is worth doing. Dedication is the point where we decide if we are capable and/or willing to follow through, and we decide on action or inaction – either of which could lead to change or to maintaining the status quo in the conditions around professionalism in this context.

Different people will move through these moments in different ways. Archer (2012) suggests that we tend to develop and practice a particular mode of reflexivity, which may change at different times in our lives, but often stems from our experiences growing up. These modes are 1) communicative reflexive, 2) autonomous reflexive, 3) meta-reflexive, and 4) fractured reflexive. For communicative reflexives, decisions need to be confirmed and completed by others before they lead to action, for example, constant checking in with others about decisions. Autonomous reflexives, on the other hand, are clear about their pathway and goal and their deliberations lead to direct action. For example setting a plan and following it no matter what might develop in the process or through interactions with others. Meta-reflexives tend to critically analyse past deliberations and actions by them and others to make decisions that will best serve the common good. For example, meeting the expectations of a supervisor while at the same time serving the interests of a client and maintaining one's own professional ethos. Fractured reflexives, however, cannot use their deliberations to lead to purposeful action. Deliberation only serves to distress and disorient them, and they can't work out how to put things right or make effective decisions. Each of us can adopt all of these modes at some point and in



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some contexts, but Archer argues that we generally have a dominant mode. Understanding our mode of reflexivity is a useful step in becoming self-aware (Ryan 2014b).

Reflection is a term that is often used in relation to self-awareness in higher education learning, professional practice and identity. Reflection is understood as a necessary component of reflexivity, and involves an analysis of a situation in terms of one's own beliefs and ideas. What distinguishes reflexivity is its bending back of that reflection onto oneself in choosing the next action (Archer 2010). It is a cycle of deliberation and action, rather than just thought. This cyclical process of reflexivity is best captured over time to identify the ways in which those reflective thoughts have been drawn into action. Professional identity building is not a linear process of getting better and better at what you do. Professional *practice* can indeed improve technical knowledge and skills over time, however professional identities are more complex in their emergences and performances. For example, one may have many years of experience in the field but may become 'jaded' by experience or contextual constraints, even if they are only perceived. Reflexive processes can provide ways to interrogate how and why one takes particular actions, the implications of these choices on self and others, and what other options can be or will be pursued for a more sustainable and satisfying professional life. Capturing reflective thoughts through writing or multimedia means that they can be revisited and woven through reflexive deliberations.

In higher education, reflective activities and assessments are fraught with ambiguity and misunderstandings of purpose (Fullana et al. 2014). While emotions and beliefs are necessarily part of such activities, they should be considered in relation to oneself as a professional in the field. In this way, there can be protocols around what stays private and what is shared – a concern identified by students in other studies (Langley and Brown 2010, Bush and Bissell 2008). Professional identities are works in progress: there is room for doubt and experimentation (Boud 1999, Saltmarsh and Saltmarsh 2008) in the reflexive project of self. The inclusion of reflection and reflexivity as intentional and explicitly taught activities in undergraduate programs

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provides opportunities for interrogating such experimentation and doubt with input from novices and experts in the field.

## **Research context and methods**

### ***Research context***

The research was undertaken in a Bachelor of Radiation Therapy degree program at a metropolitan university in Australia. Undergraduate students (n=25) in this degree were asked to complete reflective journals as part of a normal assessment program in each of four clinical placement subjects over three years – one in first year, two in second year and one in third year. The students had been introduced to the Gibbs Reflective Cycle (1998) of learning (Description, Feelings, Evaluation, Analysis, Conclusion, Action Plan) and were encouraged to use this in framing their journals.

Appropriate ethical clearance was gained through the University ethics committee and ten students gave permission for their journals to be used in this research. The four modes were evident, and in some cases, changeable, across these data, suggesting that teaching interventions have the potential to impact students' modes of decision-making. For the purposes of this paper, the journals of four students (Harry, Carmen, Reece, Molly -pseudonyms used) across three years are analysed to illustrate different modalities of reflexivity in accounting for professional identities evident across the full data set.

### ***Analytical methods***

Deductive methods were used to code the data for Archer's (2007) three Ds of the reflexive process (discernment, deliberation and dedication) evident in students' written journals, as well as their reflexive modalities (Archer 2012) across time (communicative, autonomous, meta and fractured). The analytical method of critical discourse analysis (CDA) enables the exploration of reflexive writing modalities on three intertwined levels: the macro level of socio-historical ideologies, objective structures and influences on students, teachers and teaching, for example the 'expected' roles of students on placement; the meso level of the contextual

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specificities of the textual occurrences, the decisions that are made at these moments, and how these influence the texts produced, for example how assessment expectations may shape what is written; and the micro level of the language choices that are used to represent self, others, knowledge and ideas (Ryan 2014b), for example choices of words to describe self or actions on placement. We use Fairclough's (1992, 2003) linguistic point of reference, that of Hallidayan (1978) systemic functional linguistics, which is concerned with the social character of text and the relationship between discourse and discursive practice. Hallidayan linguistics is particularly useful in exploring reflexivity as it foregrounds choice and decision-making in the design of texts.

Discourse analysis of students' reflective journals utilises linguistic evaluation (after Halliday 1978) and appraisal (Martin 2004) to determine students' self-appraisal and positioning as professionals through language. Specifically, assumptions that are made, grammatical mood, styles, modality and evaluation are examined to determine aspects of Archer's (2012) four reflexive modes. We argue that these students can be identified as utilising particular modes in their decision-making and action across time. We used Archer's (2012) descriptions of these four modes across the life projects of generations of people as a starting point, and then applied these to accounts of professional identity:

- *Communicative* indicators – follows instructions without necessarily understanding why; constantly checks in with supervisors, colleagues, friends; use of modals in language to show uncertainty in own actions; talks about care for patients more than learning; looks to others to provide opportunities.
- *Autonomous* indicators – keen to finish tasks; focused on most efficient way to get the task done; self-directed; explains goals to supervisor and puts strategies in place to achieve these; offers opinion and advice to colleagues; indicates a focus on own perspective.

Ryan, M. E. & Carmichael, M.A. (2015). Shaping (reflexive) professional identities across an undergraduate degree programme: a longitudinal case study, *Teaching in Higher Education*, DOI: 10.1080/13562517.2015.1122586

- *Meta* indicators– mediates a balance between attention to protocols and using initiative; describes situations from the perspective of others; weighs up courses of action; cares for patients but also ensures involvement in new learning experiences; questions colleagues and supervisor.
- *Fractured* indicators – doubts self; finds it hard to apply theory to practice; talks about self as student rather than professional; uncertain how to act and where to get advice; holds back; finds it hard to develop new courses of action to improve.

#### **Harry: Communicative reflexive**

Harry was a male school-leaver. Harry's journals show evidence of communicative reflexivity (Archer, 2012) across time. He shaped and augmented his professional identity over the three years as he folded in his experiences and personal concerns, however his overarching communicative reflexive modality remained strong. In his first clinical placement journal he clearly positioned himself as a novice observer who was there to follow instructions – not surprising for a first-year student: *My role as a student was to learn, observe and involve myself in the team at linear accelerator 2*. His foregrounding of *my role as a student* in the theme position in the sentence (Fairclough, 2003) shows that he had 'discerned' (Archer, 2012) a key priority of staying within accepted boundaries as a student learner; required in this assessment and typical of the communicative reflexive in maintaining the status quo. He experienced an unexpected situation whereby he was told to leave the room as the patient had requested that no males or students be present in the room during her treatment. This novel experience (Christie et al. 2014) prompted some 'deliberation' (Archer, 2012) from Harry about his role as a student vis-à-vis his respect of patient wishes:

*I felt confused due to not been given clear instructions about the patient beforehand... Although this experience would slightly hinder my learning*

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*experience... it could not be at the sake of a patient... our duty of care to the patients is more important than individual accomplishment or gain.*

Harry's concern about *clear instructions* and his low linguistic modality (Fairclough, 2003) using the adverb *slightly* when he alluded to how the situation disadvantaged him, indicate a professional identity of conformity to the existing professional practices and these assessment processes. He 'dedicated' (Archer, 2012) a plan to: *ask if there was a way I could be more involved...* Again, his foregrounding of *ask* shows that he needs to confirm with others before he develops a possible strategy forward, consistent with communicative reflexivity.

On his second (P2) and third (P3) placements, Harry showed evidence of a developing professional knowledge as he began to use technical jargon and references to the literature in his reflections:

*I was asked to level and straighten the patient with the lateral levelling tattoos and anterior isocentre tattoo... by attempting to control the bed and gantry, it would also further improve my knowledge and understanding about specific treatment techniques, as I would be getting hands-on experience (Halkett & Krisjanson, 2007). (P2)*

*I attended a brachytherapy treatment for early stage prostate cancer where multiple seeds were placed inside the prostate gland at various positions... With the use of ultrasound, the radiation oncologist contoured the critical structures including the urethra, rectum and the prostate... (P3)*

He also began to 'discern' and 'deliberate' (Archer, 2012) the areas in which he felt he needed to improve as a professional, a task required by this reflective assessment:

*I will need to be more assertive and more self-assured in what I want to achieve to reach my educational goals... from last year's clinical*

Ryan, M. E. & Carmichael, M.A. (2015). Shaping (reflexive) professional identities across an undergraduate degree programme: a longitudinal case study, *Teaching in Higher Education*, DOI: 10.1080/13562517.2015.1122586

*placement, one of my weaknesses was not attempting to develop any sort of patient relationship or communication with patients due to my lack of self-confidence. (P2)*

*This experience emphasised the importance of communication between radiation therapists and patients as well as between radiation therapists in treatment and planning. In the future I aim to build a high level of rapport... (P3)*

His use of both past tense (*was, emphasised*) and future oriented present tense (*will need to be, I want to achieve, I aim to*) shows his acknowledgement of the need for ongoing learning and improvement as a professional as argued by Crozier and Reay (2011). These potential 'dedications' through reflexivity (Archer, 2012), however, are always expressed through a communicative modality: *I did not want to cause trouble... my plan includes going over the set up instructions beforehand with one of the radiation therapists... I did require guidance and cues... I felt nervous... I thought I was slowing everyone down... I did not want to annoy them with my clarification questions...* Harry continued to seek affinity with the team and with his supervisors to maintain the status quo, rather than posing specific strategies to be more assertive.

By the fourth placement, Harry experienced a shift in his professional identity after his supervisor encouraged him to take the couch as though he was a patient. This novel experience (Christie et al. 2014) jarred him into realising that he needed to see the treatment from the patient's perspective: *This made me realise that I was only thinking about the job at hand... it really opened my eyes to put the patient as the first priority.* Along with this shift in focus, Harry finally put into action his plan to be more assertive and to develop good relationships:

*One of my aims was to develop extensive patient relationships. I addressed this to my charge early on in the week, which resulted in increased responsibilities... A handful of patients really opened up to*

Ryan, M. E. & Carmichael, M.A. (2015). Shaping (reflexive) professional identities across an undergraduate degree programme: a longitudinal case study, *Teaching in Higher Education*, DOI: 10.1080/13562517.2015.1122586

*me about how their treatment was going and if they could feel the gradual onset of fatigue, erythema or bowel toxicities.*

He showed how he took control through his active voice (*I addressed this...*) yet he indicated his new priority of patients-first by placing *a handful of patients* in the theme position (Halliday 1978) of his next sentence. Despite these fluidities of identity over time, Harry maintained a professional identity that is predominantly distinguishable as communicative reflexivity: *...make sure I understand and respect the differences in workflow in each department in order to recognise the limitations and boundaries in which I can apply myself to be an effective member within a multidisciplinary team.* He positioned himself as a team player that knows the rules and is prepared to stay within these boundaries to maintain equilibrium.

#### **Carmen: Autonomous reflexive**

Carmen was a female school leaver whose reflective journals demonstrated a clear focus on self. She 'discerned' (Archer, 2012) a key priority for each placement and increasingly, across the three years, positioned herself as a scholarly professional who used the literature to support her perspectives, no doubt a way to earn respect from the marker of this assessment piece. Her dominant mode of reflexivity was autonomous (Archer, 2012) as she accounted for her self-directed professional growth. In her first clinical placement, she 'deliberated' (Archer, 2012) about her role as a student:

*I felt unsure of how to communicate effectively with the patients. This too is not an unusual avenue of concern for inexperienced students with little or no prior patient contact however concerns tend to diminish considerably once introduced to these situations (Hajek, Najeberg & Cushing, 2001).*

Carmen used the literature to position herself as a textbook case of the clinical student. She picked themes from the literature and provided her own examples and reflections to illustrate these: *The article suggested that a lack of confidence in communication is not uncommon amongst students... I need to*

Ryan, M. E. & Carmichael, M.A. (2015). Shaping (reflexive) professional identities across an undergraduate degree programme: a longitudinal case study, *Teaching in Higher Education*, DOI: 10.1080/13562517.2015.1122586

*ignore my timid and self-doubting nature as it prevents me from grasping a total understanding of concepts...* She was willing to concede weakness and doubt as might be expected in a reflective assessment piece - *I felt unsure* - but this doubt was always framed, using the literature, as normal, indicated through her use of linguistic nominal or adjectival groups - *not an unusual avenue of concern; not uncommon*. Her use of the negative form - *not* - softened the tone and her acknowledgement that she needed to take some action to improve - *I need to ignore* - shows that she was aware that she was a novice and that this was a journal that she would hand in for assessment, so it would be prudent to show evidence of learning and a 'dedicated action' (Archer, 2012).

In subsequent clinical placements, Carmen reflected on her active engagement in the teams, however, she framed her reflections around critique of other team members in not enabling her to fulfil her goals - indicative of 'autonomous reflexivity' (Archer, 2012). In Placement 2 (P2) she used strong linguistic modality with emotive terms such as *blatant, distinctly unwanted, detracted from....*

*The blatant lack of recognition of my presence by some staff members not only made me feel distinctly unwanted but also led me to feel that rather than building my confidence, something I hoped to do on this placement, this aspect actually detracted from my confidence level.*  
(P2)

She recounted an error she made with a patient on an immobilisation device, and reflected on her innate desire for perfectionism.

*I felt slightly foolish at making such a simple mistake, though this was more than likely due to my innate desire to perform every task precisely and perfectly... the error that I made was due to a lack of practical knowledge to support my theoretical understandings.* (P2)

Carmen deliberated about her personal approach to tasks and was able to discern an area for development - *lack of practical knowledge* - which highlights the point that



Ryan, M. E. & Carmichael, M.A. (2015). Shaping (reflexive) professional identities across an undergraduate degree programme: a longitudinal case study, *Teaching in Higher Education*, DOI: 10.1080/13562517.2015.1122586

Bulman and colleagues (2014) make, that theory cannot be applied 'off the shelf'. Carmen indicated that it was in the planning stage of treatment that she was able to apply her theoretical knowledge, however she did not account for the dynamics of the context and the team, nor did she mention patient care or perspectives.

*I felt that it was in planning where I was most able to apply my theoretical knowledge to the clinical setting. Whenever possible I would attempt to develop treatment plans, utilising information I had gathered from reading textbooks, attending lectures and also through techniques I had seen while rostered to the treatment machine. (P3)*

Carmen maintained her autonomous reflexivity (Archer, 2012) as a scholarly professional across the three years. Even though she developed new clinical knowledge and understandings, she tended not to weigh up the perspectives of others around her, relying instead on what she could learn from her studies. In her fourth placement she focused on the ethics of care and emotional intelligence, terms she had gleaned from her reading rather than from experiences she necessarily had with patients on placement. Whilst an understanding of these emotional aspects of professional identity are crucial (Hancock and Walsh 2014), they need to be experienced in the field (Trede, Macklin, and Bridges 2012) rather than just intellectualised. Carmen's 'dedication' (Archer, 2012) of action included decontextualized strategies to improve.

*In an effort to further develop skills in the area of emotional intelligence I intend to practice emotional identification through the use of online emotional intelligence quizzes. In addition to this I will partake in further research... I plan to read some literature...*

Carmen was a student who was able to discern and deliberate clinical issues and techniques. Through her journals she showed a growing knowledge of clinical practice and an awareness of her own goals and strategies. She tended not to deviate from this self-directed autonomous mode of reflexivity to consider the nuances of identities in context.

Ryan, M. E. & Carmichael, M.A. (2015). Shaping (reflexive) professional identities across an undergraduate degree programme: a longitudinal case study, *Teaching in Higher Education*, DOI: 10.1080/13562517.2015.1122586

### **Reece: Meta-reflexive**

Reece was a male school leaver who demonstrated a meta-reflexive approach throughout his reflective journal entries. He experienced a jarring experience (Christie et al. 2014) with a distressed patient (who was unable to communicate) on his first day which he said *abruptly removed me from my comfortable theoretical understandings of radiation therapy and snapped me into reality*. He 'deliberated' (Archer, 2012) about the role of a radiation therapist by weighing up the emotional aspects – *passion* – the technical accuracy and the importance of communication.

*It abruptly put me at the forefront of radiation therapy, allowing me to see the true passion of the role... the role of a radiation therapist is to not only treat a patient optimally, but to make their treatment as pleasant as possible... I learned that through the use of effective communication, a fast, effective and accurate treatment can be achieved, along with the comfort and wellbeing of the patient.*

From this novel incident, Reece 'discerned' (Archer, 2012) communication and patient care as key concerns for him to prioritise in subsequent placements.

*Knowing that I lack in communication skills, I decided to examine the basic techniques used such as body language and tone of voice... my action plan is to develop my communication skills by interacting more with patients. (P2)*

He not only accessed the literature to understand the techniques of communication, but he also realised that practical interaction was necessary to put such skills into practice, as argued by Trede and colleagues (2012). In Placement 3, Reece continued to display a meta-reflexive stance as he drew on his own professional learning and knowledge, considered the needs of the patient in a specific context, and acknowledged the importance of conferring with other experts.

*I was able to witness a patient undergoing radiotherapy after HDR brachytherapy. This patient was new and as I conversed with the patient he already had side effects of radiotherapy to the prostate that should*

Ryan, M. E. & Carmichael, M.A. (2015). Shaping (reflexive) professional identities across an undergraduate degree programme: a longitudinal case study, *Teaching in Higher Education*, DOI: 10.1080/13562517.2015.1122586

*not appear so early. I was able to identify the reason and discuss with the patient that it could possibly be due to the HDR brachytherapy. The patient's concern about the side effect seemed to be put at ease as he saw the reasoning behind my proposition. I followed through with this by discussing the issue with the radiation therapists asking them to further discuss the issue with him to reassure his concerns.*

By the fourth placement, Reece shifted his perspective to that of team player, considering not only what he would gain from his experiences, but also how the team might benefit if he pursued particular actions. He demonstrated an ability to weigh up different perspectives and consider a way forward that would benefit all involved – indicative of a meta-reflexive professional.

*My placement became more than just a learning experience for myself, but an experience for everyone around me. As I integrated with the team at a level I had never achieved before, I aimed to share their workload, apply myself in all aspects of what they did, trying to create a positive environment wherever I went...I was able to think ahead and problem solve... allowing me to act upon impending problems instead of the team. This allowed them to continue their roles while I solved the problem. This made me an asset to the team.*

As a meta-reflexive, Reece was able to use reflective techniques to consider the broader context of radiation therapy practice (Brackenridge 2007) and the ways in which he might contribute – *Through the reflection of work practices I am able to isolate elements that promote and impede effective practice. This process may lead to the support of existing practices or may give impetus for change.* His use of timeless present – *I am able* -and future oriented present tense – *may lead* - and his reference to *reflection* and *this process*, indicate that he positioned himself as a lifelong learner who can make a difference – *impetus for change* - in his chosen profession.

Ryan, M. E. & Carmichael, M.A. (2015). Shaping (reflexive) professional identities across an undergraduate degree programme: a longitudinal case study, *Teaching in Higher Education*, DOI: 10.1080/13562517.2015.1122586

### **Molly: Communicative/fractured?**

Molly was a mature age student whose accounts of her professional identities show that she moved between communicative and fractured reflexivity (Archer, 2012). She observed, during her first placement, that *the character of the team has a significant impact on the progress of the day*. While she lacked confidence in this novel situation (Christie et al. 2014) on her first placement, as a communicative reflexive she responded to the feedback from her team leader – *the team leader took me aside to say I should have more confidence in myself. My description to the nurse had been well informed and professional and I had demonstrated a good knowledge of the theory*. By the second placement, however, she positioned her professional identity as fractured (Archer, 2012).

*I was slow and relatively uncoordinated... I felt out of my depth... I felt overwhelmed by the number of people observing me and also by the speed with which some of them worked... I get confused by instructions... I was expected to work much faster than I felt capable...*

She began to reflect on the actions of others rather than on her own actions and participation or even suggestions for how she might handle a difficult situation with an anxious patient – *the doctor should have taken more time to communicate with him... I felt very uncomfortable and left the room... I must not allow my insecurity to override the need to care for the patient*. Molly removed herself when the situation became difficult – not entirely unexpected behaviour from a student, however this was not her first placement and she didn't 'deliberate' (Archer, 2012) about her reasons for leaving, how she felt, or what she might do differently next time even though such deliberation would be expected in this reflective assessment.

During Placement 3, Molly reflected quite a bit on the ways in which the team responded to different cases, rather than on her own professional learning or identities. She demonstrated communicative reflexivity as she recounted how comments from the team about her perceived fear in the treatment rooms, fuelled her lack of confidence as she sought affirmation. She also showed indications of a fractured response – *I continue to want to give in*. This movement between

Ryan, M. E. & Carmichael, M.A. (2015). Shaping (reflexive) professional identities across an undergraduate degree programme: a longitudinal case study, *Teaching in Higher Education*, DOI: 10.1080/13562517.2015.1122586

communicative and fractured continued into Placement 4 as Molly struggled to 'dedicate' (Archer, 2012) a way forward.

*I worked hard to control my emotions during the assessment interview with my supervisor as I struggled to correlate the way I felt during treatment procedures with the image that I was portraying to staff...this conversation engendered feelings of extreme anger and disappointment... the feelings of hurt and betrayal were difficult.*

Molly did acknowledge in her final journal entry that *I have the ultimate responsibility for my role as an efficient, accurate and caring radiation therapist*. However, she didn't acknowledge the role her emotions obviously played in her professional identity, whether there were specific triggers, and whether particular strategies might work in different situations to manage these.

### **Discussion and implications**

These four modes of reflexivity, communicative, autonomous, meta- and fractured, can be identified in these data through reflective writing over time. Whilst this is a small study, its longitudinal nature provides indications that reflexive modes may be a useful and generative aspect of professional identity building to consider in undergraduate teaching. In these data, communicative reflexives are very reliant on others to confirm appropriate actions – great for professional teamwork but not so much to take initiative and instigate change when necessary. Autonomous reflexives, on the other hand are self-directed and motivated to get things done, but might not deviate from their plan even if it is unsustainable or unsatisfying. Meta-reflexives tend to weigh up both the subjective and objective conditions to make decisions that will serve a common good – attributes of a good leader. Fractured reflexives, however, find it hard to make decisions as they are overwhelmed or frustrated and cannot see a sustainable way forward, potentially leading to stress and burnout. These modes have implications for professional satisfaction and success, however we argue that they can be used in productive ways for nuanced self-assessment for undergraduate students. These data show that students may shift modes, or learn to

Ryan, M. E. & Carmichael, M.A. (2015). Shaping (reflexive) professional identities across an undergraduate degree programme: a longitudinal case study, *Teaching in Higher Education*, DOI: 10.1080/13562517.2015.1122586

manage their mode of decision-making depending on their learning experiences - including novel or jarring events (Christie et al. 2014).

If students are aware of the ways in which they mediate concerns and deliberate about action in their professional lives, they can also learn strategies to manage and enable their concerns in satisfying and sustainable ways (Archer, 2007). This approach puts analysis of self at the forefront in professional identity building. That is, professional identities are not just about knowledge of the discipline and the contexts in which we work, but are also about self awareness of how we conduct ourselves to deliberate and take action as a professional. Dialogic and collaborative reflexive strategies can be powerful ways to help undergraduate students to shape professional identities (Bulman, Lathlean, and Gobbi 2014, Trede, Macklin, and Bridges 2012). Communicative reflexives, for example, would benefit from opportunities (using clinical placement scenarios) to get advice or feedback from a number of 'critical friends' about how to respond to critical incidents, and then develop a plan in which they weigh up multiple types of feedback to 'dedicate' (Archer 2012) their own action, which they should be asked to justify. For autonomous reflexives, the single course of action can be tempered by considering others' responses to similar scenarios and by weighing up the potential effects of novel alternatives. In today's society, the single-minded approach is almost untenable as we are much less able to predict outcomes in ever-changing contexts (Archer, 2012). Thus having the opportunity to stop, reflect and weigh up the impact of one's choices can provide the catalyst for new ways of imagining and performing as a professional. For meta-reflexives, reflexive interrogation of professional identities provides possibilities for change and innovation, particularly in relation to expected norms and interactions with others in different contexts. Analysing the potential effects of new ways of working can engender powerful deliberations for action that subvert the status quo and provide leadership for others in performing as professionals in new ways. Fractured reflexives (who are unable to commit to decisions or actions) can benefit most of all from reflexive and shared self-assessment of professional practices and identities. Reflexive strategies that are well scaffolded can help to abstract the core issues and feelings from the fractured

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context and make appropriate action clearer. Responses from others can provide inspiration and a plan of action can help these students to reassert some control in professional contexts. These reflexive self-assessment strategies can form part of a more rigorous approach to developing robust and flexible professional identities through undergraduate programs.

## **Conclusion**

We argue that reflective journals can be an effective tool for students to take a self-conscious approach to their professional identities (Hamilton and Druva 2010). Reflective journals are only effective, however, if reflections are well scaffolded with reflexive prompts that encourage students to bend back their deliberations on self to determine future action and re-action. We can teach students to take a self-conscious approach using reflexive prompts as a framework to interrogate and imagine the subjective considerations (their emotions, experiences, knowledge, beliefs, mood) that influence their professional identities over time and how their choices and actions afford them different outcomes in particular objective structures or contexts. Our findings suggest that students shape their identities over time, and that the provision of well-planned curriculum experiences (Donnison and Marshman 2013) and opportunities for deep and critical reflection (Ryan 2013) are crucial in shaping reflexive professional identities for lifelong learning.

Further, we suggest that making such reflections 'social' (Yancey 2015), that is, sharing them with others in new and different ways, can lead to much more powerful and generative understandings of self. In this study we didn't offer the opportunity for students to share their reflections with other students as a community of learners. We argue that taking this extra step would enable a deeper engagement with the reflexive self so that future goals and actions can be tailored to encourage new forms of deliberation and decision-making.

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