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Carr, Sam, Gilbride, Neil and James, Chris (2017) School Principals: Their Adult Ego Development Stage, Their Sense-Making Capabilities and How Others Experience Them. In: American Education Research Association, 27th April - 1st May 2017, San Antonio, Texas, USA.

Official URL: <http://www.aera.net/Events-Meetings/Annual-Meeting/Previous-Annual-Meetings/2017-Annual-Meeting>

EPrint URI: <http://eprints.glos.ac.uk/id/eprint/4623>

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School Principals: Their Adult Ego Development Stage, Their Sense-Making Capabilities and How Others Experience Them

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Paper to be presented at the 2017 Annual Conference
of the American Education Research Association,
San Antonio, 27th April – 1st May, 2016.

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Abstract

School principals' interpretation of the context for their work has significant implications for their practice and for organisational theory educational settings. Principals' sense-making capability can change over time, as in all adults. Sense-making capability is grounded in adult ego development (AED) theory which describes eight distinct stages of development. The research reported here assessed the AED stage of 13 school principals in England using the Washington University Sentence Completion Test and using critical incident technique analysed their sense-making capabilities and how others experience them. The analysis of the school principal case studies indicate substantive differences between those in different stages of AED in: their awareness of and sensitivity to organisational complexity; how they interpret the role of others in significant events/incidents; and how they are experienced by others.

Key words

School Principals
School Headteachers
School Leadership
Adult Ego Development
Sense-Making Capability

Introduction

The way school principals interpret the context for their work has significant implications for their practice and for organisational theory in educational settings. This sense-making capability can change over time, as can in all adults. Constructive-development theories (Kegan, 1983) model and explain meaning-making and social interaction capabilities during adulthood. A sub-set of those theories relates to the development of the adult ego during an adulthood (Loevinger, 1976; 1987; Manners and Durkin, 2000; 2004). The ego is the part of an individual's psyche that is central in sense-making and interaction. The stages of adult ego development (AED) are known to be significant in organisational leadership in non-educational settings (McCauley et al., 2006) and have relevance in school leadership (James, James, and Potter, 2014). However, school principals' AED stage, their sense-making capabilities and how others experience them has not been specifically explored. Hence the rationale for the research we report in this paper.

We have three objectives in writing this paper: (1) To analyse the way the AED stage of principals in England relates to their sense-making capabilities; (2) To analyse the way the stage of AED stage of principals in England influences the way they are experienced by those they work closely with; and (3) To develop a substantial and new theme in organisational theory and practice in educational settings.

Following this introduction we: set out the central issues in the perspective we are taking and our theoretical framework; outline the methodology for the empirical aspects of the research; and describe the findings. We then reflect on the findings in a discussion section and in the final section we make some concluding comments.

Perspective and theoretical framework

The ego is the frame of reference individuals use to make sense of and interpret the world they experience (Loevinger, 1976). During an individual's lifetime, this frame of reference can change progressing through eight distinctly different stages, a process known as AED. The stages reflect an individual's interpretation of interpersonal relationships, cognitive complexity, impulse control and cognitive pre-occupations (Hy and Loevinger, 1998). They are constellations of cognitions, perceptions, affects and other influences (Hauser, 1993).

AED is a distinct perspective on personality. Its theoretical underpinning as a psychosocial theory characterises sense-making as influencing and being influenced by interactions with objects/individuals in the external world. This perspective contrasts with trait models of personality, for example, the 'Big Five' personality characteristics (McCrae and Costa, 1980), which describe the personality attributes Openness, Conscientiousness, Extraversion, Agreeableness and Neuroticism. Aspects of the personality describe the extent of a characteristic whereas the stage of AED refers to the way those characteristics are worked with in relation to the environment. Whether this idea privileges AED as the master trait as Loevinger (1976) argued remains open to debate. The characteristics of the eight stages of AED are set out in table 1.

Table 1. Descriptions of the stages of adult ego development adapted from Manners and Durkin (2001); Hy and Loevinger (1996) and Loevinger (1976). Stage 1 (Pre-social and Symbiotic) is a pre-adult stage and is not included in the table.

Name of stage	Description
2 Impulsive	Demanding; impulsive; conceptually confused; concerned with bodily feelings, especially sexual and aggressive feelings; no sense of psychological causation; dependent; good and bad seen in terms of how they affect the self; dichotomous sense of good and bad, nice and mean.
3 Self-Protective	Wary; complaining; exploitive; hedonistic; preoccupied with staying out of trouble and not getting caught; learning about rules and self-control; externalizes blame.
4 Conformist	Conventional; moralistic; sentimental; rule-bound; stereotyped; need for belonging; superficial niceness; behaviour of self and others seen in terms of externals; feelings only understood at banal level; conceptually simple, thinks in 'black and white' terms.
5 Self-Aware	Increased, although still limited, self-awareness and appreciation of multiple possibilities in situations; self-critical; emerging rudimentary awareness of inner feelings of self and others; banal level reflections on life issues, for example, God, death, relationships, health.
6 Conscientious	Self-evaluated standards; reflective; responsible; empathic; long term goals and ideals; displays and perceives true conceptual complexity; can see the broader perspective and discern patterns; principled morality; rich and differentiated inner life; mutuality in relationships; self-critical; values achievement.
7 Individualistic	Heightened sense of individuality; concerned about emotional dependence; tolerant of self and others; incipient awareness of inner conflicts and personal

	paradoxes, without a sense of resolution or integration; values relationships over achievement; vivid and unique way of expressing self.
9 Autonomous	Capacity to face and cope with inner conflicts; high tolerance for ambiguity; can see conflict as an expression of the multifaceted nature of people and life in general; respectful of the autonomy of the self and others; relationships seen as interdependent rather than dependent/ independent; concerned with self-actualization; recognizes the systemic nature of relationships; cherishes individuality and uniqueness; expresses feelings vividly.
10 Integrated	Wise; broadly empathic; full sense of identity; able to reconcile inner conflicts, and integrate paradoxes; self-actualised person, growth motivated, seeks to actualize potential capacities; endeavours to understand her/his intrinsic nature, and to achieve integration and synergy within the self.

Individuals can move through the AED stages during adult life but that movement may not occur. Movement between stages represents a fundamental shift in worldview and often occurs in response to disequilibrating events (Bauer and McAdams, 2010; Helson and Roberts, 1994).

An individual's stage of AED is widely considered to be one of the strongest personality measures with 40 years of research repeatedly confirming and providing substantial empirical support for AED theory (Gilmore and Durkin, 2001; Manners and Durkin, 2004) and the robustness of its measurement using the Washington University Sentence Completion Test (WUSCT) (Hy and Loevinger, 1998).

The influence of a school principal's stage of AED is likely to be significant, affecting how they interpret the context for their leadership, their leadership actions and how their leadership actions are experienced by others. Schools are complex, evolving, loosely linking systems (CELLS) (Hawkins and James 2016), a characteristic which arguably demands a sophisticated sense-making ability to act with optimal appropriateness. Linear thinking and cause-and-effect sense-making modes are unlikely to be adequate in such settings, at least in the medium to long term. Partly as a consequence of the contextual complexity, many of the issues principals face are 'wicked problems' (Churchman, 1967), where organisational problems are particularly challenging to solve because the information about them is often incomplete and/or contradictory and the requirements of any solution are not clear/explicit. Leithwood, Begley and Cousins (1992) refer to such problems as swampy problems: there is no clear process to follow, the interpretation of them is highly subjective, and they are often person-oriented requiring sophisticated inter-personal skills to solve.

The complex context for school leadership and the swampy or wicked problems school principals have to solve demand a sophisticated sense-making capability. Arguably, as leaders move through AED stages they develop an enhanced ability to: interpret the role of others in a mutual way; handle greater degrees of complexity; and grasp the conflict between external and internal demands in how they make decisions (Hy and Loevinger 1998). However, school principals' AED stage, their sense-making capabilities and how other experience them has not been researched in depth to date. Hence the rationale for the research we report here.

Methodology

Case studies of 13 principals of a range of schools in various regions in England (see table 2) were carried out.

Table 2. Characteristics of principals studied. Primary schools are for students aged 5 – 11 years, secondary schools are for students over the age of 11 years up to a maximum of 18 years.

Principal	Gender (Male/Female)	Approximate age (Years)	Type of school (Primary or secondary)	Region of England where the school is located
A	Female	35-40	Primary	East
B	Female	50-55	Secondary	Midlands
C	Male	40-45	Primary	South
D	Male	45-50	Secondary	South East
E	Female	40-45	Secondary	West
F	Female	40-45	Secondary	East
G	Female	40-45	Primary	East
H	Male	35-40	Secondary	Midlands
I	Male	30-35	Primary	East
J	Female	40-45	Primary	East
K	Female	35-40	Primary	North
L	Female	40-45	Secondary	West
M	Female	45-50	Primary	London

Research design

The data collected and the data collection method for each case were as follows.

The principals' adult ego development stage was measured using the WUSCT (Hy and Loevinger 1998). The WUSCT is a semi-projective test of 36 stems of incomplete sentences. By completing the sentences, individuals project their frame of reference onto the issue raised in the incomplete sentence. The WUSCT is a robust assessment instrument of AED stage (Manners and Durkin 2001). The first assessment of AED was checked by a second assessor without reference to the first assessment.

The way the principals interpret events was analysed using two methods: (1) their response to pre-prepared vignettes of critical incidents of the kind that might happen in a school and that would require a response from the principal; (2) and interviews about critical incidents that had actually taken place recently in the school. In this context, a vignette a pre-designed story, written about a context familiar to the participant (Schoenberg and Ravdal, 2000). Using these two methods enabled data to be collected about the principal's *anticipated* response to a critical incident (their response to the vignettes), and how they *actually* responded (their response to the real critical incidents they identified).

In all the interviews, the questions were informed by the Critical Incident Technique (CIT) (Evardsson and Roos, 2001; Butterfield et al., 2005; Flangan, 1986) and the use of the phenomenological life interview (Kvale and Brinkmann 2014). This combination of approaches drew on the strengths of the two methods to enable the development of rich and vivid descriptions of the respondent's lived experience that illustrated actions, and cognitive and affective processes.

Vignette development

The vignettes used had been jointly developed by groups of primary and secondary school principals, former principals and principal trainers/developers in four focus groups geographically spread across the UK (Bath, London, Sheffield, and Manchester). In total 28 participants were involved. Focus groups were used (Kreuger, 1988; Cohen, Manion and Morrison, 2011) for developing the vignettes and the development process followed an approach commonly applied in questionnaire development for surveys (Robson 2005). Those in the vignette development groups were asked to write a short account of a typical school scenario based on their experience. They then exchanged their accounts with two other attendees and the three participants were required to come to an agreement on the vignette that painted the most valid depiction of an event in the life of a school that others could access, and to write an account of the reasons for their choice. Following discussion of all the vignettes by the whole group, the groups of three participants then developed their chosen vignette further to incorporate the common themes found from across their own vignettes and across those developed by the rest of the group. Following the focus group, the vignettes that had been developed were analysed for key themes by the researchers and the vignettes edited accordingly. Four vignettes that had broadly the same themes and similar subject matter were identified, and two vignettes, one for use with principals of primary schools and one for use with principals of secondary schools, were selected. These vignettes were then returned to those involved in the focus groups, for final checking and validation.

Data collection procedures

Three data collection procedures were used.

1. **Principals' responses to the vignettes.** Respondents were required to describe their thoughts, their feelings and their likely actions in response to the vignette and to explain those thoughts, feelings and actions. (Schoenberg and Ravdal 2000).
2. **Principals' responses to critical incidents that had taken place recently in the school.** Respondents were required to identify particular events/incidents that were significant to them and that required them, in their role as principal, to respond. They were asked to describe their thoughts, their feelings and their actions and their explanations and rationales for those thoughts, feeling and actions. The interview was then recorded and transcribed for subsequent analysis of emergent themes.
3. **Data collection from those with whom the principal worked closely.** In addition to collecting data from the principals, data was also collected from the deputy principal (DP), who was in a subordinate position to the principal in terms of management accountability, and the chair of governing body/school board (ChSGB), the superordinate to whom the principal was accountable in a management sense. The same vignettes were used and respondents were asked to describe how they anticipated the principal would respond. The DPs and the ChSGBs were also asked to identify recent critical incidents that had actually occurred and to describe how the principal actually responded.

All the interviews were recorded and the questions and responses transcribed. The transcriptions were subsequently analysed emergent themes.

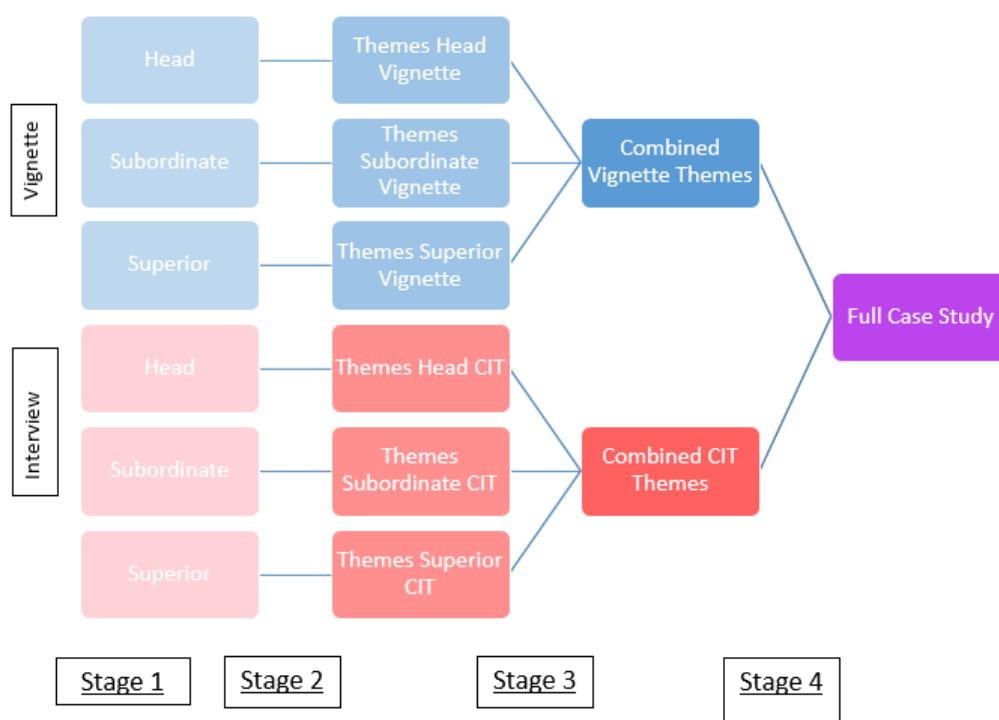
This range of data and data collection methods enabled a rich picture of each principal's actions in the face of significant events. Recall of incidents alone could be subject to bias and recent events could have clouded the interpretation of what happened previously (Butterfield et al 2005). Introducing a hypothetical vignette task; a pre-designed story, written for a context familiar to the participants (Schoenberg and Ravdal 2000), alongside the principal's response to an event that

actually did take place meant we could compare what the principal anticipated doing to what they really did in a previous incident. Further, relying on the principal as the sole interpreter of their actions would arguably be insufficient. Such accounts could be interpreted to bias and recall. Furthermore, we would have no means by which to triangulate emerging themes. Thus, including those who worked with the principal allowed us to both triangulate the actions/approach of the principal whilst collecting how the principal is experienced by others direct from those who experience them.

Data analysis

Following the data collection, the different perspectives of the principal, the DP and the ChSGB developed using different tasks meant any emerging themes were generated from across different individuals and could be corroborated across different tasks (see Figure 1). In this manner, embracing the concept of triangulating observation, the authenticity of the analysis was increased, as we could substantiate the findings using themes from more than one source, and also expand the themes due to the different demands of each task.

Figure 1. A depiction to the data analysis indicating how the themes were identified and cross-checked to develop the case study themes

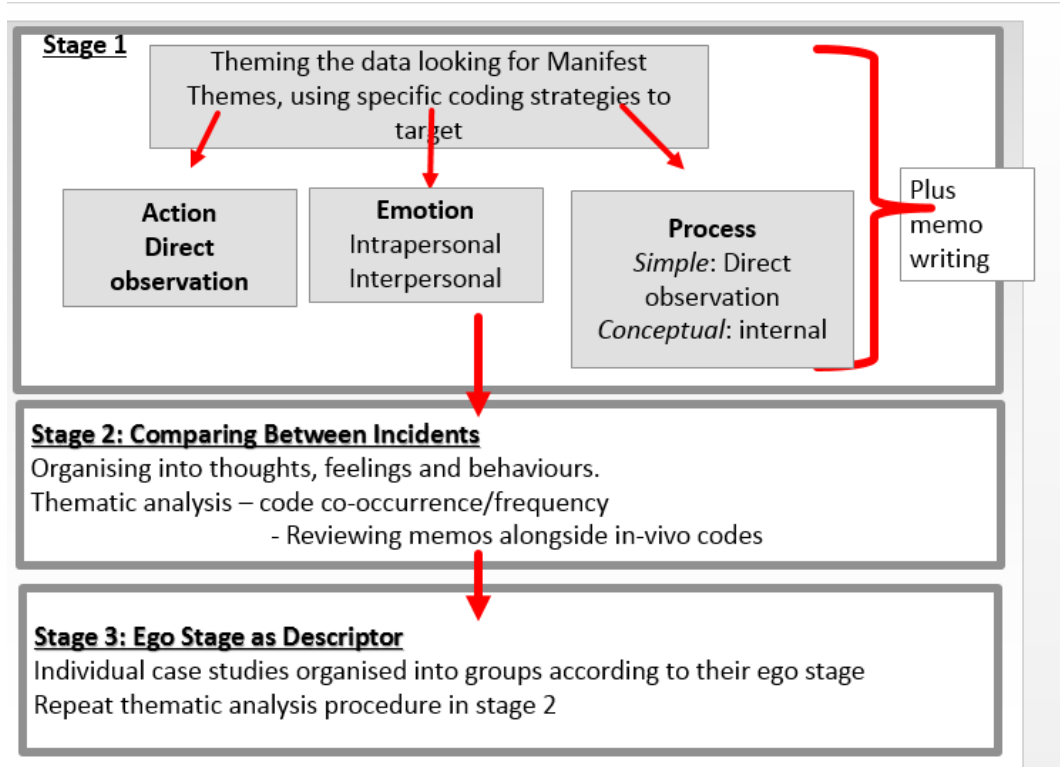


Following the analysis of the themes for each case, the WUSCT score was determined. This sequence was crucial in order to prevent bias in the analysis of the interview data. The AED assessment was performed by the case study researcher and another analyst independently. Both researchers, in preparation for using the WUSCT, completed and followed training guidance outlined in Hy and Loevinger (1997) as outlined in the, also met personnel requirements by holding a minimum of a Bachelors Psychology degree. Across all assessments, the agreement rate was 0.88, which surpasses average inter-rater reliability requirement of 0.80 (Manners and Durkin, 2001).

The case studies were organised into groups according to the principals' stage of AED, and the thematic analysis procedure repeated across the group as shown in Figure 2. This cross-case

thematic analysis elicits the typical sense-making processes of school principals at the same AED stage, and the way those principals in the various stages are experienced.

Figure 2. The thematic analysis of the data set to illustrate how the various emergent themes from each case study were related to a particular stage of AED.



Results

13 case studies were completed and the findings are as follows.

The stages of adult ego development of the respondents

The respondents' AED stages are shown in Table 3.

Table 3. The stages of AED of the respondents as assessed using the WUSCT.

Stages of AED	Number of respondents
5 Self-aware	2
6 Conscientious	5
7 Individualist	6

The three groups were compared to identify emerging patterns in the ways the principals in the different AED stages interact with their environment and are experienced by others.

Emerging patterns of interaction

Awareness of and sensitivity to complexity

Those in the Conscientious and Individualist stages used a wider range of variables in their descriptions of the incidents; focused more on achieving understanding as opposed to actions to be taken. Those in the conscientious and individualist stages differed in two key ways.

- **Connections beyond the immediate situation.** Principals in the individualist stage had a greater concern for the wider organisation and reflected in relation to that in deciding what step to take next. Furthermore, those in the individualist stage would approach the situation aware that there would be “ripples” within the organisation that they will need to monitor following the specific incident.
- **Attempting to impose predictability.** Principals in the conscientious stage attempted to achieve predictability within a given situation. This theme was evident in detailed and meticulous planning. What the principal wanted to say in a meeting would be pre-prepared, often in the form of a speech, and would be read out during the meeting. Principals would explicitly state their expectations of how they would expect the staff to complete a task, and the outcome the staff members would be expected to achieve. Furthermore, such principals would attribute reasons for behaviour or change without thorough research, for example “*The teacher is acting weird, they must be stressed*”. This approach contrasted with the approach of those in the individualist stage, who would be more inclined to leave such a finding open whilst they enquired as to the reasons/causes.

The role of others in the incident

This theme relates to the principal’s interpretation of others and how the principal interacted with them. The principals in the self-aware stage tended to focus on the behaviour; delegation would follow hierarchy and others would be engaged to provide information or to provide reassurance. Delegated would be undertaken with a specific task in mind. Those in the conscientious stage emphasised cooperation with a select group of individuals. This select group would be those with whom they could reveal their true selves rather than hiding behind the title of ‘Principal’. The discussions would focus on the situation and what they wanted in a fundamental sense. The interactions would be to validate their own perspective and to have a ‘behind-closed door’ conversation, where feelings and thoughts could be discussed without any consequence such as offending others. This select group were required to act as a ‘moral compass’ for the principal (“*Am I being unreasonable?*”).

Those in the individualist stage sought to engage others through a dialogic discussion, using such discussion to either seek objective counsel or to co construct ideas through debate and challenge. They would be described as listening and being “*in the moment*”. Principals in the individualist stage were more likely to seek objective considered counsel from across and outside any management hierarchy outlining thoughts of who they involved and why but also how a specific policy or action could be viewed by others. This way of thinking was shared differed among the principals at the different stages. Those in the Self-aware stage generated understanding using a quick and private process focused on action to be taken. Those in the other stages tended to share their thinking. Moving through the stages saw a wider involvement of people.

Responding to Incidents

This theme related to the different ways in which the principals in the different stages would typically respond to a challenge or an arising situation.

In seeking to fully understand the situation, those at the self-aware stage predominately focused on obtaining immediate, observable data in the form of reports or observations. They would use multiple sources in obtaining this data, which would then be used to inform next steps.

Those in the conscientious stage focused more on the obtaining of information in order to establish what the concerns were and why this was happening. They would ask others about their concerns and look for evidence, attempting to establish any patterns, or indeed changes in patterns. Subsequently, principals would use the information obtained to establish a logic and a plan of action. Principals demonstrated that they would use a range of information beyond what was immediately observable, and would mediate their response based on what the individuals involved was going through.

As with the principals in the conscientious stage, those in the individualist stage were also interested in evidence but concentrated on the process of how they handled both the information and the people with whom they were working in establishing the evidence. Their interactions in turn influenced a plan to move forward. Whilst principals at earlier stages would hypothesize reasons behind statements or actions, for example, linking a change of pattern to stress. On the other hand, principals in the individualist stage looked to understand the situation in an open-ended way and ask deeper questions to understand the underlying mechanisms from other people's points of view. Indeed, empathy was a word commonly used to describe how the principal, who was subsequently found to be in this stage, would respond to the incident, by both the principals and those around them.

A crucial difference in the role of support emerged as a theme. Principals at the individualist stage would discuss long-term management of the situation beyond the initial input through identifying the support a range of individuals needed. This support might have been in the form of additional training and development, mentoring or referral to other service providers. Earlier stages focused on support as a response to the incident itself. In these instances, support was in the form of direct help, guidance or provision and usually to the assumed victim

Finally, the role of policy in informing the decisions of the principal affected the decisions they made. Principals in the self-aware stage were inclined to follow policy but to ask "*what was my upper limit*", with the rationale of protecting themselves in vulnerable situations. Whilst accepting the rules, they clearly felt they had an opportunity to adapt the rules. For principals in the conscientious stage, policy was referred to much less. Those who did refer to a policy, indicated that this policy was a policy they had decided, or that they had to decide to utilise the policy. For principals in the individualist stage, the policy provided guidelines or underlying principals and a means by which to be fair to all.

The role and value of feelings

The role and value of the feelings varied across the case studies. Principals at the self-aware stage would describe the feelings that would be generated upon the incident occurring. Principals in the conscientious stage explicitly stated the need to maintain a calm environment and/or a calm exterior. They reported that feelings negatively affected decision-making and would describe the steps they had taken within themselves and in their environment to maintain calm. Amongst the principals in the individualist stage, the approach was to enable those around to speak openly about how they were feeling and take proactive steps to ask others how they were feeling within the situation. Interestingly, those who experienced the principal reflected on how this did not affect the decision at the end.

How the principals in the different stages of adult ego development were experienced by others

The principals at the individualist stage appeared to generate an affective connection and resonance with others, more so than the principals in the other stages. Those in the self-aware stage were defined by their actions and how one action would link to another.

The principals in the conscientious stage were described more by their personal qualities, and whether the principal was a *“good listener”* or a *“caring person”*. They were experienced as outwardly projecting calm and control, prioritising logic and argument. However, colleagues of principals at this stage found seeking discussion over *“doing the right thing”* and would often be followed with *“heart-to-heart”* conversations, where they would describe the principal exposing more of their true state. Such conversations enabled the principal’s colleagues to feel they had an insider knowledge of this principal. They felt they saw the principal’s true reactions through such conversations, and not reactions fabricated for others. What has also emerged was the way the principals at this stage could react if actions suggested by others countered the principal’s view. The principals would shut down the idea/the suggested alternative in a way that could be *“short”, “sharp....similar to a teacher telling me off”* as one respondent put it.

Descriptions of the principals in the individualist stage by others went beyond praise and popularity to encompass themes such as friendship and trust. There was a deeper connection based on empathy and understanding. Those in the individualist stage seemed to *“intuitively get it - [they] walk in the room and [they] just put their finger right on the issue”* as one respondent put it. Colleagues reported feeling that they are listened to.

Discussion

Our starting point in this research was that a more mature sense-making system, as indicated by ego development, could favour those in trying to navigate the wicked or swampy problems that are the every-day experience of a school principal’s working life in the complex setting that is the school. To that end, we have explored how principals in different stages of AED respond to critical incidents and how they are experienced by others as they respond. Such issues are typically termed *“wicked”* (Churchfield 1976) or *“swampy”* (Leithwood, Begley and Cousins 1992) problem. In this section we thus discuss of the nature of such problems, which we refer to as complex problems, and use that to shape the characteristics leadership practices of those in the different stages. We start however, with a consideration of general issues to emerge from the research.

General issues to emerge from the study

That the leadership practice of the principals in different stages of AED appears to be different is an important finding. Those at different AED stages do appear to operate in different ways. Arguably, this finding needs to be confirmed by the study of a larger population but this interim finding is significant and has important implications for the practice and study of school principals. Importantly, and in addition, the relationship between the quality of a principal’s leaders practice – their capability as a principal – and their stage of sense-making becomes an important consideration. We are also aware that other personality characteristics – the so-called ‘Big Five’ (McCrae and Costa, 1980) may have an effect on principals’ actions. Although the assessment of personality was beyond the scope of this study, it is a matter for further investigation.

We were intrigued by relatively limited range of AED stages identified in the case studies. Only principals in the self-aware, conscientious and individualist stages (5), (6) and (7) respectively were identified. Those in stages: (2) impulsive; (3) self-protective; (4) conformist; (8) were not

represented. The sample studied was small, which may be an explanation. Individuals were self-selected; they were asked through a range of different communication means to volunteer if they wished to take part. This self-selection may be an explanation. It may well be the case that the sense-making capabilities of those in the earlier impulsive and self-protective stages make them unsuited to headship, and there are indication that such a conclusion may be the case (James, James, and Potter, 2015). The absence of those in the later stages may be because they are fewer in number and are harder to find – for a range of reasons. Those in these groups are relatively under-represented across the ‘principal population’ as a whole. It may be the case that the overwhelming majority of principals in England are in the self-aware, conscientious and individualist stages. Further research is required into the relative prevalence of the different type across the ‘school principal population’ in England.

Characteristics of complex problems

Requirements are not clear/explicit

Being in a situation where the requirements are not clear can be the equivalent to role ambiguity, which can impact on performance, decision making (Rogers and Blenko 2006) and act as a psychosocial stressor (Schmit et al 2014).

Moving through the stages from self-aware to conscientious to individualist, there is a greater degree of interaction with policy as a means to asset a basic understanding of what would be required of the individual throughout this task. There is a movement from using policy as self-protection, a characteristic of the self-aware stage, to thinking about whether they agree or accept the policy (the conscientious stage), to eventually in the individualist stage how the policy provides guidelines in order to support them navigate the context. This demonstrates a growth through these stages in how individuals were better placed to establish a clearer role for themselves. Moving through the stages marked a greater degree of reflection on how the policy related to them, and eventually to themselves and to the context. Thus, those in the individualist stage could uniquely utilise the policy as a flexible resource that could be tailored to context and thus provide support and role clarity within their decision-making,

There is no clear process to follow

When there is no clear process, principals can rely on general policy to provide guidance. The strengths of more sophisticated ego stages in this regard have been highlighted in the previous section. Additionally, one step to successfully navigating in such situations could be accepting that situations unfold in a manner that is difficult to predict (Stacey, Griffin and Shaw 2000). This approach would allow individuals to embrace a complex adaptive systems approach: how the situation could have multiple states; how it could be influenced by factors unaware to the individual; and how new behaviours could emerge at any point (Bryne and Callaghan 2014). Consequently, ‘letting go’ of predictability could facilitate the principal in conducting a process that is truly responsive to what is happening around them, opposed to the pattern of logic outlined in the beginning.

This theme was a clear development across the stages.

- The self-aware stage was marked by an attempt to establish predictability within the scenario, by either the gathering of facts from multiple angles.

- The conscientious stage was marked by attempting to link behaviour to discrete mechanisms or in communicating expectations for behaviour and process.
- The individualist stage was characterised by an open-ended approach to understanding the situation and a willingness to build a picture of the reasoning and mechanisms behind action with those around them as new evidence emerged. As outlined above, this approach could result in a principal in the individualist stage succeeding in the long term, by giving her/him access to the complex pathways and unexpected outcomes that might emerge during initial incident and in the lead up to the incident.

The issue is open to interpretation

By the very nature of a situation that has potential for multiple perspective to be drawn, there is room for multiple, often unseen variables that can emerge or even have an unpredictable impact on the outcome. In such situations, it is a clear strength to have a way of making sense of the world that actively seeks to understand how others are viewing the same situation.

As we move through the stages, principals increasingly sought the interpretations of others and involved others in developing an understanding of the situation and an appropriate response to it. Principals in the self-aware stage would share and request information from those around them. Going further, those in the conscientious stage would also seek counsel to validate their understanding from a 'close knit' set of individuals, whilst those at the individualist stage, sought a wider set of views from outside the management hierarchy, not just in collecting their perspective but in the development of a mutual understanding of the experience through co-construction. The principal would be more likely to see these different angles to the problem, and thus avoid any crucial blind spots.

The typically person-orientated nature of the issue

A person-orientated problem arguably requires a sense-making system that can capture the views of others, be sensitive to others' experience, thoughts and feelings and can respond to the impact on those around them. The outcomes of these processes can affect the quality of the decision made (Martin 1993). It can also affect the part empathy within leadership practice plays in supporting individuals and organisations (Holt and Marques 2012) We are taking empathy here as perceiving *"the internal frame of reference of another with accuracy and with the emotional components and meanings which pertain thereto as if one were the person, but without ever losing the "as if" condition"* (Rogers, 1980).

We have already described the emerging patterns in the involvement of others in their understanding of the situation. Moving through the stages saw an increased focus on supporting individuals involved during and after the initial incident. When this development is coupled with a change in the those around the principal described either the person-orientated qualities of principals in the conscientious stage or how principal in the individualist made them feel, the capacity for working productively with people involved in these wicked problems grows within each stage.

Concluding comments

From this study, it appears that the leadership practice of the principals in the different stages of AED is different, which is an important finding. Those at different AED stages apparently operate differently. The research gives important new insights into the ways principals make sense of and

interpret the context and the appropriateness of their leadership practice. It also provides important new insights into the ways principals at various AED stages are experienced by others. Importantly, it opens up and develops a substantial new perspective on organising theory and practice in schools. Our emerging findings show that moving through the stages of AED could represent fundamentally different ways in which principals take up the role of leading a school. As AED can change throughout the adult lifespan (Bauer and McAdams, 2010; Helson and Roberts, 1994), the attempted contextualisation of adult stages within school practice could provide a model to work with principals in developing their practice further.

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