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School Principals at Different Stages of Adult Ego Development: Their Sense-Making Capabilities and How Others Experience Them

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Abstract

The way school principals make sense of the context of their work shapes their actions. As in all adults, principals' sense-making capability is a function of the ego and can change over time. Adult ego development (AED) theory describes distinct, qualitatively different stages of sense-making ability. The research reported here assessed the AED stage of 20 school principals in England using the Washington University Sentence Completion Test. Principals in the Self-Aware, Conscientious and Individualist stages of AED were identified. The research used a critical incident technique to analyse principals' sense-making capabilities and how others experience them in their role as principals. The findings show substantive differences between those in different stages of AED in relation to their sense-making processes, the feelings they experience and display as emotions, how they involve others in the sense-making process, and how others experience them. There is a discernible trend in the behaviours of school principals and how others experience them that relates to the transition from the Self-Aware stage, to the Conscientious stage, to the Individualist stage. These findings have significant implications for understanding the practice of school principals.

(185 words - max 200)

Key words

School Principals School Leadership Adult Ego Development Sense-Making Capability

Introduction

The way school principals make sense of the context of their work has significant implications for their practice. For example, if a school principal makes sense of a significant incident in the school correctly, her/his actions in response to the incident are likely to be appropriate. Their sense-making can be collective, a perspective developed by Weick (1995) and recently considered and developed by Ganon-Shilon and Schechter (2016) in this journal, or it can be individual (James, James, and Potter, 2017), which is our starting point here. The eqo is the part of the psyche that has a central role in individual sense-making, consciousness and interaction (Freud 1933; Loevinger, 1976). Its sense-making capability can change over time, a process known as adult ego development (AED) (Loevinger, 1976; 1987; Manners and Durkin, 2000; 2004). An individual's stage of AED is likely to significantly affect her/his leadership actions (Cook-Greuter 2004; Rooke and Torbert 2005; McCauley et al. 2006). AED has been shown to be relevant in school leadership practice (James, James, and Potter, 2017). It provides a new perspective on school leadership practice and the rationales for that practice enabling that practice to be better understood and explained. However, the individual sense-making capabilities and the consequent action logics of school principals at different AED stages and how their colleagues experience them as principals, has not yet been researched. Research into this issue has the potential to inform

understandings of the practice of school principals and to significantly add to understandings of educational institutions. Hence the rationale for the research we report here.

A review of the relevant literature review

Adult ego development

The ego is the frame of reference individuals use to make sense of and interpret the world they experience (Freud, 1933; Loevinger, 1976). The ego's sense-making capability can change during adulthood progressing through distinctly different stages, a process known as AED (Loevinger, 1976).

James, James and Potter (2017) synthesise six principles that underpin AED as a constructive developmental theory: (1) Sense-making is an active process; (2) People at a particular stage share identifiable and definable sense-making schemas; (3) Each successive sense-making schema transcends and encompasses the previous one; (4) Individuals do not regress to a previous stage once a stage has been reached; (5) Movement to the next AED stage may be constrained by the limitations of the current stage: and (6) Importantly, the stage of AED affects what an individual is aware of and can describe, reflect upon and do. This last principle is significant for school leadership. What an individual school principal is aware of in the context for their leadership and what they can consider and communicate, and how they act are central aspects of their practice. An individual's AED stage conditions their action logics (Loevinger 1979), which are their rationales for actions. This notion clearly has implications for leadership actions generally (Cook-Greuter 2004: Rooke and Torbert 2005: McCaulev et al. 2006), James, James and Potter 2017) have explored the implications of individual school leaders' action logics being conditioned by their AED stage. They conclude that not only does AED give an important perspective on school leadership practice but it can explain aspects of leadership practice.

AED stages depict individuals' cognitive pre-occupations, impulse control, interpretation of interpersonal relationships and cognitive complexity (Hy, Xuân and Loevinger, 1996). They portray a progression from a simple, static and egocentric way of sense-making to one that is complex, dynamic and socio/world centric. (Cook-Greuter, 2004). As development progresses, understanding and insight grows and importantly the quality of organising actions and their appropriateness improves. McCauley et al. (2006), following a synthesis of the various models of AED, including those of Kegan (1983), Loevinger (1976) and Fischer and Torbert (1995) portray the development trajectory as a movement from 'independence' to 'dependence' to 'inter-independence'. A school principal's stage in this development trajectory is likely to have significant implications for the way he/she makes sense of organisational events and acts in relation to those events, and the apporpriateness of those responses. Interestingly, AED may not occur in all adults. It often happens following disequilbriating life events (Helson and Roberts, 1994). Table 1 shows the different AED stages and the characteristics of individuals at those different stages. It is clear from the descriptions provided in the table that the action logics of school principals in the different AED stages are likely to be different. Importantly the way their leadership actions are experienced by others are likely to be different.

Table 1. The characteristics of individuals at different stages of adult ego development. The pre-adult Pre-social and Symbiotic stages are not included.

Name of stage	Description
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; a dichotomous sense of good and bad, nice and mean.			
Self-Protective	Wary; complaining; exploitive; hedonistic; preoccupied with staying out of trouble and not being caught; learning about rules and self-control; externalizes blame.			
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 a banal level; conceptually simple, thinks in 'black and white' terms.			
Self-Aware	Increased, although still limited, self-awareness and appreciation of multiple possibilities in situations; self-critical; emerging rudimentary awareness of the feelings of self and others; banal reflections on life issues, for example, God, death, relationships, and health.			
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.			
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; a vivid and unique way of expressing self.			
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.			
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.			

AED is a distinct perspective on personality. It differs from trait models of personality, for example, the 'Big Five' personality characteristics (McCrae and Costa, 1980; Costa and McCrae, 1993; Paunonen and Ashton, 2001), which describe the attributes Openness, Conscientiousness, Extraversion, Agreeableness and Neuroticism. As James, James and Potter (2017, p.6) argue, "Aspects of the personality describe the extent of a characteristic, whereas the stage of AED refers to the way those characteristics are worked with".

An individual's stage of AED is widely considered to be one of the strongest and most robust personality constructs. Forty years of research has repeatedly confirmed and provided substantial empirical support for both AED theory (Gilmore and Durkin, 2001; Helson and Roberts, 1994; Manners and Durkin, 2004) and the robustness of its measurement using tools such as the Washington University Sentence Completion Test (WUSCT) (Hy, Xuân and Loevinger, 1996),

The foregoing analysis shows that an individual's AED stage affects how he/she make sense of the environment and their actions logics, which in turn affect how they are experienced by

others. It was to explore these matters in relation to school principals at different stages of AED that we undertook the research described in the next section.

The research methodology

The research design

The research questions were: 1. What are the sense-making capabilities and the action logics of school principals at different AED stages; 2. How do the colleagues of school principals at different AED stages experience them as principals. Twenty principals from a range of schools in various regions in England were studied. Each principal first completed the WUSCT but the test data were not analysed at this point. The principals were then provided with pre-prepared accounts of hypothetical critical incidents (Evardsson and Roos, 2001; Schoenberg and Ravdal, 2000; Butterfield et al., 2005) that could happen in their school. They were also asked to identify actual critical incidents (Evardsson and Roos, 2001) that had occurred in their school. The participants provided written responses to the hypothetical critical incidents and we interviewed the principals to explore how they responded to the actual critical incidents.

In England, schools typically have a deputy principal (DP) who works closely with the principal and deputises in her/his absence. Schools also normally have a governing board, which has responsibility for overseeing the overall conduct of the school. The school governing board has a chair with whom the principal will usually have a close working relationship (James et al., 2013). We therefore interviewed the deputy principal (DP) and the chair of the school governing board (ChGB) to explore how others with whom the principal works closely experience them. We collected data on how the DH and the ChGB experienced the principal in her/his role generally and in relation to how they anticipated the principal would respond to the pre-prepared hypothetical critical incidents. We also asked the DH and the ChGB to identify an actual critical incident (Evardsson and Roos, 2001) that had occurred in the school and to describe principal's response.

The analysis of the WUSCT data was only undertaken when the data from the interviews with the principal, the DH and ChGB had been analysed. Two people undertook the WUSCT data analysis, one of whom was not involved in analysing the interview data. The inter-rater reliability score was high (see below). This approach ensured that the analysis of the interview data was not influenced by any knowledge of the principal's stage of AED. The research conformed to the guidelines of the British Educational Research Association for the ethical conduct of research (BERA 2018).

The sample

The sample was developed opportunistically (Cohen, Manion and Morrison, 2013). Principals were engaged through the researchers' networks and social media. Early in the study, we were interested in achieving a balanced sample of respondents in relation to gender and type of school where the respondents were the principal. Towards the end of the study, more experienced respondents were deliberately sought in order to include more respondents who were likely to be in the later stages of AED and to achieve data saturation (Cohen, Manion and Morrison, 2013). Table 2 shows the characteristics of the principals studied and their AED stage.

Table 2. The characteristics of the principals studied.

Principal	Gender (Male/Female)	Age range (Years)	Type of school Primary/ secondary	Stage of Adult Ego Development
A1	Female	30-40	Primary	Self-Aware
B1	Female	40-50	Primary	Self-Aware
C1	Female	40-50	Primary	Self-Aware
D1	Male	50-60	Secondary	Self-Aware
E1	Male	40-50	Secondary	Self-Aware
F1	Female	30-40	Primary	Conscientious
G1	Male	30-40	Primary	Conscientious
H1	Female	40-50	Secondary	Conscientious
11	Female	50-60	Secondary	Conscientious
J1	Male	50-60	Primary	Conscientious
K1	Female	30-40	Secondary	Conscientious
L1	Female	40-50	Secondary	Conscientious
M1	Male	40-50	Primary	Conscientious
N1	Female	50-60	Primary	Individualist
01	Male	30-40	Primary	Individualist
P1	Female	40-50	Secondary	Individualist
Q1	Male	40-50	Primary	Individualist
R1	Male	40-50	Primary	Individualist
S1	Male	40-50	Secondary	Individualist
T1	Female	40-50	Secondary	Individualist

Data collection

Principals' AED stage was assessed using the WUSCT (Hy, Xuân and Loevinger, 1996), which 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 first assessment of AED was checked by a second assessor without reference to the first assessment. Both assessors had followed and completed the training guidance outlined in Hy, Xuân and Loevinger (1996) and also met the academic requirements. Across all assessments, the agreement score was 0.88, which surpasses the average inter-rater reliability requirement of 0.80 (Manners and Durkin, 2001).

In the first stage of the interview with the principals, they were asked how they anticipated they would respond to hypothetical critical incidents and in particular to describe and explain their likely thoughts, feelings and actions (Schoenberg and Ravdal, 2000). The hypothetical critical incidents were developed by a total of 28 primary and secondary school principals, former principals and principal trainers/developers in four focus groups (Kreuger, 1988; Cohen, Manion and Morrison, 2013). From the critical incidents developed, a primary school

critical incident was selected that related to a parent complaint that about pupil safeguarding where the parent had previously complained before the current Principal's appointment and due process had not been followed leading to the complaint being dropped. Similarly, a secondary school critical incident was selected, which focussed on persistent absence of a child whose mother was a member of the school's governing body. The selection of the hypothetical critical incidents used was validated by the focus group participants.

The second stage of the interview explored the principals' responses to critical incidents that had actually occurred recently in their school. Again, respondents were asked to describe and explain their thoughts, feelings and actions. The critical incidents the principals identified included: handling a disagreement amongst parents; managing the return to full-time work of a member of staff who had been on long-term sick leave; and handling an on-going complaint from a parent about her/his child's special educational needs provision.

During the interviews with the DP and the ChGB, respondents were asked to describe how they anticipated the principal would respond to the pre-prepared hypothetical critical incident described above. They were also asked to identify recent critical incidents that had actually occurred and to describe how the principal responded. The critical incidents the DPs and the ChGBs identified included: a dispute over the performance management procedure; an issue relating to pupil progress in the school; a breakdown of relationships with the school's governing body; and managing the response to external feedback on provision. In all the interviews, which lasted between 40 and 60 minutes, the questions were informed by the Critical Incident Technique (Evardsson and Roos, 2001; Butterfield et al., 2005) and the use of the phenomenological life interview (Kvale and Brinkmann 2014).

Data analysis

In each case, the interview data from the principal, the DP and the ChGB on the principal's response to the hypothetical critical incident were coded, the codes were categorised and emergent themes and the component sub-themes identified (Cohen, Manion and Morrison, 2013). This process was repeated with the interview data that related to the critical incidents identified by the participants. The emergent themes from both data sets were then brought together and similar themes were combined. This process enabled the outcomes of the data analyses to be triangulated in that data from both sets was used to show the respondents' responses to critical incidents, which enhanced the authenticity of the analysis.

When the data analysis was complete for each principal, data were organised into groups according to the principals' AED stage, and the thematic analysis procedure repeated across the group. This cross-case thematic analysis elicited the typical sense-making processes of school principals at the same AED stage, and the way those principals in the various stages were experienced by others.

Results

In this section, we present the findings from the cross-case analysis of the data in three subsections according to the principals' AED stage: Self-Aware; Conscientious and Individualist. Each principal is identified by the letter as shown in Table 2 above; the deputy principal by the letter followed by the number 2; and the ChGB of their school by the letter followed by the number 3. In each case, the data is grouped into four main themes: (1) The sensemaking process; (2) Feelings and the sense-making process; (3) The involvement of others in the sense-making process, and (4) How others experience the principals.

How the principals in Self-Aware stage responded to the critical incidents

The sense-making process

Principals in the Self-Aware stage would seek evidence in an interrogative fashion. For example, following a student misbehaviour incident in E1's school, the principal reported how he had asked the two students involved for their accounts of the incident: *"I asked what they saw each person do, who acted first and who else was involved"* and that he focussed on asking questions about what had happened. E2 recalling E1's response to the incident, said E1 *"Would ask me questions; what I saw, who I spoke to"*. E3, described E1 as *"Someone who knows their facts"* highlighting the priority for hard data, adding E1 *"Likes his school data! He knows it inside out"*.

The principals in the Self-Aware stage tended to make sense of the critical incident on their own, individually. They did not seek out others to discuss their understanding of the incident, nor did they try to develop the understanding of others. Thus in response to a staff discipline incident, D1 said, *"I felt like that, off the back of what had happened and the feedback received, that I was at the point where I needed to move the teacher out."*

The principals in this Self-Aware stage typically would not to share the rationale for their ideas. B2 summed up the experiences of those who worked closely with principals in this stage, *"He doesn't share what he is thinking per se, there isn't much thinking out loud, he tells me what we need to do to get it right".*

On reaching an understanding of the incident that had occurred, A1 reflected, "When I heard what had happened, I knew what we needed to do". A2 supported this report, "She doesn't talk it through really. She makes a decision and we get on with what needs doing". A3 also captured this approach in how he experienced A1. "She is very decisive".

The need to respond immediately and rapidly to a critical incident emerged as a robust theme. Principals in this stage sought a rapid response plan. For example, A1 summarised her approach to an actual critical incident, *"I didn't wait, I just knew what to do, and I went out to sort it."*

Seeking to follow the relevant policy/guidance was a very strong theme in the way principals in this stage responded to critical incidents. In response to the hypothetical primary school critical incident, C1's response prioritised the appropriate safeguarding responsibilities. C2 corroborated C1 response, stating how they would expect the principal to *"Speak to safeguarding* (the relevant department in the local education authority), *seek advice from the LEA* (the local education authority). C3 considered C1 *"Would be professional and follow procedure"*. Even though these hypothetical critical incidents were not designed to be responded to by direct reference to policy, C1 chose to turn to the policy in her response to the incident. By understanding the policy, the principals would understand the rules, and would follow the rules. In responding to a critical incident involving staff discipline, D1 reported: *I needed to call HR* (the local authority human resources department) *to get my policies right and then start to collect the evidence that I needed"*.

Feelings and the sense-making process

The part feelings played in the way the principals responded to critical incidents was not a theme in the data on principals in this Self-Aware stage.

The involvement of others in the sense-making process

Those close to the principals in the Self-Aware stage were involved primarily to act on the principal's behalf. Thus D2, recalling how D1 responded to a significant student

misbehaviour incident recalled, "The principal asked me to approach the member of staff involved to interview them". In the critical incident identified by C1, she sought information from C3 in the form policies and statutory guidance. In another example, when deciding what to do in dealing with a misbehaving student, B1 stated, "I brought my deputy head teacher out of their lesson, and I explained the situation. I said that I needed them to approach the teacher to ask what had been happening."

Those in this stage tended to use others as an audience for the expression of feelings. The feelings expressed to others varied but anger about the incident featured often. For example, D2, describing D1's response to an incident about teacher misconduct, recalled, *"D1 growled, he told me she was pissed off because* (name of teacher) *was still not doing her* (expletive deleted) *job."*

How others experience the principals in the Self-Aware stage

Others experienced the principals as individuals who seek to act and act quickly to resolve significant matters/events. A2 described her experience of entering A1's office: "You know you are going to go into that office (with a problem) and that something will be done about it, it's great!" A3 also noted that A1, "Doesn't dilly-dally, she observes a problem and looks to put it right."

The principals in this stage were experienced as a significant source of influence. For example, when B3 described how they experienced the principal, "She leads; she takes the situation and does something about it". F2's experience was similar, "F1 leads at the front - she gets stuck in". Across all the principals in this stage, there was an explicit reference to their leadership/influencing capability.

How the principals in the Conscientious stage responded to the critical incidents

The sense-making process

As with the principals in the Self-Aware stage, principals in the Conscientious stage sought to gather information about the critical incident. However, they would also seek out the reasons for the incident occurring. Two sub-themes were important here. First, the principals would ask those around them for their understanding of why the incident occurred. For example, L3 in describing the L1's response to a serious student misbehaviour incident reported that L1's approach to reporting the incident to the school governing board as, *"keen to share why they thought this misbehaviour incident had occurred".* Second, the principals were eager to establish the views and concerns of their colleagues about the incident. So in responding to the secondary school hypothetical critical incident, H1 said, *"I would ask the deputy principal 'why you are concerned?' Find out who the class teacher was, identify their concern et cetera".* H2 validated this response.

Principals in the Conscientious stage would take the information gathered and engage in a process of individual sense-making, which, drawing on the information provided by others, would establish the reasons for the incident. This process would eventually establish a rationale for subsequent actions.

In reaching an understanding, principals in the Conscientious stage would initially work with several different explanations. However, the focus of the principal would then be on a key factor, which would become central in shaping their actions. The principals reached a judgement on their own and not in conjunction with those around them; they would be informed subsequently. For instance, the critical incident 11 identified related to dealing with

an underperforming teacher. I1 had worked with the teacher for several years. She reported, *"It became clear that I didn't share her philosophy of children and my commitment regarding achievement and teaching"*. I1 described how she weighed up the information from different sources before taking action. She said that information from students, parents and others *"strengthened the case"* for dealing with the teacher. She went on: *"When I sat and thought about it, it was clear to me what I needed to do next"*. I2 supported I1's account and the sense-making process: *"She talked me through the situation, what decision she made and what the journey was in getting to that decision"*.

Detailed planning following the sense-making process was a consistent data theme. F1 described how, in preparation for an important external visitor to the school, he/she sought to ensure that *"Documents, paperwork, plans were in the state that would be as expected"*. Referring to the same incident, F2 reported, *"The head told me it was really important to sit down with the staff and remind them of what we are trying to get across and the detail they need to use"*. In relation to another incident, preparing for a discussion on examination performance at a meeting of the school governing board, L2 reported that L1 would examine everything in detail, *"Like a scientist, asking questions and drilling down into the detail"*.

Those principals in this stage expressed a desire to provide support to those involved in the incident. For example, following a breach of school protocol by a teacher in relation to student welfare, H1 concluded that the teacher had been asked to do too much. H1 said, *"Is the teacher juggling too many balls? We need to do something to support her, to make sure that that doesn't happen"*. Principals in this stage would often seek to provide the support personally, a theme often typified in simple phrases, for example: *"I knew I had to do something for them"* (L1).

The principals' references to policy in responding to critical incidents, was not a strong theme in the data.

Feelings and the sense-making process

The way the principals in the Conscientious stage dealt with the affective aspects of their response to critical incidents was a substantive data theme, with two sub-themes.

Principals in this stage articulated a need to minimise feelings and their expression as emotions. For example, F1 was clear that *"emotions make for bad decisions"*. F2 in describing how F1 would respond to a highly charged critical incident said F1 would *"probably go and calm down somewhere"*.

The principals were concerned to inquire about the affective impact on those involved in a critical incident. An example was G1 expressing concern that after challenging a member of staff about their conduct, whether he had had any negative impact on them: *"I did wonder if I was too harsh on them, I asked* (G2) *just to check on them later on to see if they were OK."*

The involvement of others in the sense-making process

The principals in the Conscientious stage would make use of a trusted set of 'advisors', typically the deputy and the ChGB, in working with critical incidents. The principals would share their sense of what had happened with them and the advisers would act as a sounding board the principals' ideas.

Others provided a space for the principals to share their deeper, less socially acceptable feelings about the incident. After participant G1 had had a difficult meeting with a teacher following an incident when the teacher challenged G1 in the presence of students, G1 sought out G2 to discuss the meeting. The discussion with G2 enabled G1 to release his

feelings: "I told G2 how outright rude it was for (the teacher) to challenge me in front of his students, I couldn't believe it. G1 went on "In those situations (private meetings with G2), I can take the mask off, I don't need to be so calm around them". Similarly, during an issue about staffing, H2 described how, "H1 took me aside, and we talked through the situation, we have a close relationship and felt like they could tell me the truth, sometimes she would get upset, swear sometimes.

Others were used as a source of validation. For example, both H1 and J1 referred to using their DHs and ChGBs as a "sounding board". Principal K1 also used others in this way "At the end of the day and the rest of the staff had gone home, I gave (K2) a ring. I always find it helpful to talk through what I want to do".

How Others Experienced the Principal

Three sub-themes were evident in the ways others experienced the principals in this Conscientious stage.

Other experienced the principals in this AED stage as having particular qualities or traits. For example, I2 describe I1 as "very calm, she's a listener". I3 described the same principal as "decisive". L2 described L1 as "an empathetic person, she tries to listen to others", and L3 "she is supportive; she does a lot to show they care for the staff". Only rarely were the qualities described in depth or combined with rich examples.

As discussed above, principals in this stage would be experienced as being decisive and as having clarity about what they should do. They would be experienced as taking a logical and rational approach in responding to a critical incident. Others experienced them as looking for reasons and attempting to establish rationales for the critical incidents, and seeking to remove feelings from the decision-making process (see above).

Despite being experienced as having a logical, rational approach to making sense of the critical incident, the principals would be experienced as highly emotive, choosing the appropriate moment to express their full affective reaction to the incident.

How the principals in the Individualist stage responded to the critical incidents

The sense-making process

As with the principals in the Conscientious and Self-aware stages, the principals in the Individualist stage sought hard data and evidence about the incident. They also sought reasons and explanations for the incident as did principals in the Conscientious stage. However, the principals in this stage would also seek out insights from the way those involved were feeling. In response to a critical incident where a parent was involved, S1 stated, *"I must speak to her in person, when something* (a conversation) *is over the phone or email you cannot hear the tone of voice or body language, I feed off that."* The principals also sought the insights and intuitive judgements of those around them to gain a deep understanding; *"I want to ask 'what do you think is happening here?' you know, get the real insight"* (S1).

Principals in the Individualist stage allowed their understanding of the critical incident to emerge gradually and as new information came to light. Q1 described how he sought to make sense a critical incident where a teacher had accused a colleague of unprofessional conduct. Following initial meetings with the teachers, to understand the matter from both their perspectives, he spoke with other members of staff and spent time gaining a greater

understanding. As new information became known, Q1's understanding shifted accordingly, which enabled her to see that *"This was more complex than one side being right and the other wrong. I needed to keep asking questions".* QI's account of her approach was supported by Q2 and Q3.

Principals in this stage involved those around them to make joint sense of the incident. T1 described how she responded to a critical incident involving a complaint from a parent. T1 initially discussed the issue with the teacher directly involved, T2, and T3. These discussions revealed yet further new understandings. The outcome of these discussions was shared with T2 and the school Senior Leadership Team and the members of staff directly involved *"to articulate and seek feedback"*. T3 said that during all the exchanges, *"We were communicating and making sense of the complaint. We'd ask each other 'Is this a good way to go?' 'How can others interpret this?"*.

Principals in this Individualist stage would seek out a range of individuals to enhance their understanding of the incident with each individual having a different role to play. In responding to the hypothetical primary school critical incident, O1 said he would talk to: the parent to "explore reasons"; O2 who would provide O1 with "an insight into the complications and what we should do next"; and the class teacher would "approach the child...and to ensure that they continue to monitor the child's welfare". All those involved had a role in enabling an appropriate and secure response to the incident. Others were involved on the basis of their closeness to those involved or to the incident itself, or their ability to offer a different perspective, not necessarily on their position in the management hierarchy.

The way principals in this stage endeavoured to understand and empathise with the perspective of others was a strong data theme. They would engage in dialogue and meaningful conversations to develop an understanding of the incident that could be shared. This approach enhanced the principal's capacity to make others feel they were being listened to.

Principals referred to needing time to think and reflect while considering what to do next. T1 in responding to a critical incident noted, *"I reflected on what happened in conversation* (with the teacher who was centrally involved), *reading how she was listening, how she was responding to the situation and my approach. Do I need to change tack?"* R1 reported that after speaking to two members of staff about a student misbehaviour incident, he would take time to reflect and *would "use the time to test out different scenarios in my head"*.

Principals in this stage were aware that there was often a history to any incident; that the incident itself and the subsequent response would have consequences; and that individuals beyond those immediately involved would be affected.

Those principals in this stage were keen to provide support and feedback. For example, in handling an incident with a parent, N1 stated, *"We need to get this right for* (the teacher involved) *in the long-term"*. N2 similarly reported, *"N1 will want to get this right going forward, they will keep an eye on the situation"*. The principals in this stage recognised the incident would continue to have ramifications and they would need to support those involved in the long term. In identifying those who needed support, principals within the individualist stage looked beyond the individual involved. Thus in response to a hypothetical primary school critical incident, O2 reported that O1 would be *"interested in the welfare of the family"* and would ask, *"Are the family OK?"*

Principals would use the incident to support the ongoing development of their staff. For example, R1 reported how he framed a conversation with R2 about the critical incident: "As I was talking to him, I kept within a coaching model, guiding him through the conversation".

Later in the interview, R1 disclosed that R2 was moving into a new role in another school and that he was keen to support her in that transition.

Principals within this stage achieved this understanding by sharing their rationales for action and would often share their understanding as it developed. R3, responding to the hypothetical primary school critical incident said she would expect R1 to share his thinking to achieve this widespread understanding, a process that in his view *"would make them feel involved."*

Feelings and the sense-making process

The principals in this stage were characterised as having an empathetic approach. For example, P3 said, "P1 just 'gets it'. (She) will take the time to listen and you can see that what you've said has been taken on board". P2 reflecting on important conversation with P1, said that P1 "Connected with what I was trying to say and the way I was feeling. Sharing the story made me feel understood, empathised with".

These principals endeavoured to provide opportunities for those involved to express their feelings about the incident. For example, when O1 spoke to the parent of a student involved in an ongoing incident said, *"I wanted to let her get how she was feeling off her chest*". O2 corroborated O1's approach recalling how after announcing that there was a short notice Ofsted inspection, "(O1) said how he cannot do it alone, that he needed our help and said 'I trust you'". In O2's words O1 then *"let people flap*", that is express their feelings, *"and we then worked together to build a response*" to the news of the inspection.

Those principals in this Individualist stage sought to ensure the affective well-being of those involved. For example, P1's approach to an incident regarding a school governor who had stopped attending governing body meetings was to contact the governor concerned to enquire, *"How they are within themselves"*. P2 discussed how P1 would *"consider the well-being of the governor, they would be interested in what was happening behind the drop in attendance"*. P3 also felt that the principal would be *"concerned for the governor's well-being"*.

The involvement of others in the sense-making process

Principals in this Individualist stage sought out others to assist with the process of the coconstruction of meaning. In this process of co-construction, they would involve others in: collecting information, reflecting on their understanding, and engaging others to understand the incident from another perspective. Interactions were dialogic which enabled the principal to develop her/his understanding with others' understanding. The principals had a deliberate approach to the involvement of others. For example, N2 said, "(N1) *would ask me who I think I should involve and we would talk about why*".

Others were involved as sounding boards. Principals in this stage would involve others to check that their understanding and sense of any incident was appropriate. For example, N1 described his preparation for a meeting with a member of staff undergoing discipline procedures. He said he asked his secretary to double check, *"I asked 'if you were* (the teacher), *how would you respond to this? And I showed her the letter outlining the minutes of the meeting."* N3 described N1's approach when he was acting principal prior to becoming the principal; N1 met the different groups of school staff, trying to understand the school from different perspectives.

Principals in this stage expected to be involved. Many themes in the data analysis showed that the role of others in the incident was to be actively involved in enabling the principal to

develop a shared understanding with them and in jointly formulating an appropriate response to any critical incident.

How others experienced the principal

The principals were experienced as having deep and significant effect on those they worked with. In describing the principals in this stage, the ChGBs and DHs went beyond listing the principal's qualities and described the impact that the principal had on them and their work. Thus, the principals appeared to develop a stronger relational bond with those with whom they worked. Describing the nature of this relationship was challenging for respondents. Thus after some thought, this quality was summarised by N3: *"If you could bottle what they had we'd all want to buy it*".

The principals were able to identify the issues that others cannot see. The ChGBs and DHs described their principals as someone able to read and interpret a situation with a high degree of accuracy. For example, Q3 describes how "(Q1) walks into the room, engages with those around them, and (Q1) can put her/his finger right on the heart of the issue". P2 described P1 in a similar way.

The sense-making processes of school principals at different stages of adult ego development and how others experience them

Table 4 summarises how the principals in the different stages of AED made sense of the critical incidents, and how others experience them. The differences between the principals in the different stages are readily apparent in this table. The data themes shift in principals in the Self-Aware stage to those in the Conscientious stage and then to those in the Individualist stage. Similarly, the way the principals were experienced by others shows broad trends as the principals' stages of AED move from Self-Aware stage to the Conscientious stage to the Individualist stage.

Table 4. A summary of the way the principals in the different stages of AED made sense of the critical incidents, and how others experience them.

Data theme	Stage of adult ego development				
	Self-Aware	Conscientious	Individualist		
The sense- making process	An emphasis on collecting 'hard evidence' about the incident. An emphasis on individual sense- making. An immediate and rapid response. A desire to respond according to the relevant policy.	The collection of hard evidence and explanations. Predominantly individual sense making using a limited range of possible explanations. Close attention to detail in responding to the incident. A desire to provide support to those involved in the incident. Low dependency on policy.	Seeking hard evidence, reasons, and insights and intuitive judgements of others. Allowing understanding to emerge. Co-construction of understanding with others. Involvement of a range of others. Understanding the perspective of others. Reflecting and taking time to reflect. Seeking connections beyond the critical incident. The provision of support and feedback.		

			Seeking to promote staff development through the incident. Seeking to ensure widespread understanding. Reliance on policy not a data theme
Feelings and the sense- making process	Not a theme in the data	A need to minimise feelings and their expression as emotions. A need to know the affective state of others involved in the critical incident.	Feelings are a central aspect of the critical incident. An empathetic approach. Provision of opportunities for those involved to express their feelings about the incident. Seeking to ensure the affective well-being of those involved.
The involvement of others in the sense- making process	Others were: providers of information; an audience for the expression of feelings.	Others were: trusted advisers; an audience for off-loading feelings; a source of validation.	Others were: co-constructors of a shared understanding; providers of guidance on who to involve; sounding boards; expected to be involved.
How others experience the principals	As solution/outcome focussed; as a significant source of influence	As having particular qualities or traits; as taking a logical, rational approach in responding to a critical incident; as highly emotive choosing the appropriate moment to express their feelings.	As having a deep and significant effect on those they worked with; able to identify the issues that others cannot see.

Discussion

Our analysis of the way the principals in the Self-Aware, Conscientious and Individualist stages of AED shows how they make sense of critical incidents in their schools, which then appears to have implications for their leadership practice and the way others experience them. Importantly, the sense-making process and responses are different in the three stages (See Table 4). The differences show a developmental trend that reflects AED (Manners and Durkin 2001; Hy, Xuân and Loevinger 1996; Loevinger 1976) as summarised in Table 1. This finding has very significant implications for understandings of the practice of school principals and brings a very substantial issue to the fore.

Interestingly, there is evidence in the sense-making processes of the principals in the different stages of: the active nature of sense-making; that individuals at a particular stage share recognisable and distinguishable sense-making frames and importantly that consecutive sense-making frames go beyond and incorporate the previous one (James, James and Potter, 2017). The stage of development of the principals affects what those in that stage are aware of, are able then able to describe, contemplate, and what they do (James, James and Potter, 2017).

Across the principals in the three AED stages studied, a trend in sense-making is apparent. As Cook-Greuter (2004) asserts this trend moves from a simple, static and egocentric world view to one that is complex, dynamic, and socio-centric (Cook-Greuter, 2004, p. 277).

Further, a trend from independence to dependence to inter-independence (McCauley et al. 2006) is apparent.

That only principals in the Self-Aware, Conscientious and Individualist stages were identified is intriguing. The size of the sample may not have captured those in other stages. Those in the preceding Impulsive and Self-Protective stages may be unsuited to headship, an explanation which has some validity (James, James, and Potter 2015). The absence of principals in the later stages may be because they relatively rare and are harder to find as they are generally (Cook-Greuter 2004; Rooke and Torbert 2005). Perhaps the overwhelming majority of principals in England are in the Self-Aware, Conscientious and Individualist stages, which if so, is significant. It means that the authorised, genuinely collaborative, deeply reflective, developmental, affectively aware, empathetic, engaging and perceptive qualities evident in those principals in the Individualist stage are not available to those in earlier stages. Yet it is those very qualities that many would argue make for 'good principals'. Exhorting those who do not have those qualities to act in that way is likely to be unproductive and even if successful may be experienced as inauthentic by those who work with school principals acting in that way. This issue has significant implications for school principal development.

Concluding comments

This research gives important new insights into the ways principals at various AED stages make sense of and interpret the context for their role, their rationales for action, and the ways principals are experienced by others. Importantly, it develops a substantial new perspective on school leadership practice, and raises substantial issues for school principal development. We are aware that there are limitations to the study. For example, although this is a robust study in terms of the data collection and analysis it entailed, the sample is small. Perhaps as a consequence, only principals in the Self-Aware, Conscientious and Individualist stages were identified. In addition, the collection of data from a wider set of those the principals worked with could have perhaps provided further insights. In terms of future research, it would be interesting to extend this study to include those in different stages of AED particularly the those in the Autonomous and Integrated stages. Further given the advantages of the characteristics of the later AED stages, longitudinal studies of school principal AED development over time would be of value. Further, an analysis of development strategies intended to develop school principals sense-making capabilities would also be of value.

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