# Emotional and Social Intelligence Competencies in Incident Command

A.E. Black, R.E. Boyatzis, K. Thiel, and K. Rochford

ffective leadership of wildland fire operations requires paying careful attention to the fire itself and to relationships both internal and external to the incident. At the center of the action is the incident commander (IC), who must integrate her or his skill in managing the technical aspects of wildland fire operations with relationship management as well as motivational and negotiating skills.

The set of competencies required to manage and lead others effectively is referred to as emotional and social intelligence (ESI) (Boyatzis 1982, 2018; Goleman, 1998). These competencies have been found to predict outstanding leadership across a variety of professions,

and explores the possible applications for training and development.

As a leader of a diverse set of formal and informal teams, the successful IC needs to be able to play a number of roles at different points in time—as executive, as innovator, as teacher, and as pastor. The IC supervises and directs a variety of specialists drawn from a variety of organizations— Federal, State, local, and/or county. Additionally, she or he interacts with a multitude of partners, community-based groups, interested citizens, residents, and business owners. The ability to switch among various roles and appeal to people from various backgrounds and stakeholder groups would seem

The successful incident commander plays a number of roles at different points in time—as executive, as innovator, as teacher, and as pastor.

from large Federal agencies (including the military) (Boyatzis 1982; Koman and Wolff 2008), to product innovators (Dreyfus 2008; Kendall 2016), to family business leaders (Miller 2016), to higher education administrators (Babu 2016), to knowledge worker teams (Mahon and others 2014) and pastors (Boyatzis and others 2011). This article provides a brief overview of the first study of ESI in wildland fire management (Boyatzis and others 2017)

to require a high and sustained level of ESI, in addition to a high degree of technical competence in wildland fire behavior and wildland fire management strategies and tactics.

Previous applied research into successful team dynamics in wildland fire management—mostly through the lenses of high-reliability organizing (see, for example, Black and McBride 2013; Black and others 2012; Fox and others

2017; Jahn and Black 2017; Useem and others 2005; Waldron and Ebbeck 2015) and learning organizational theory (see, for example, Black 2009; Black and Dether 2006)—confirms that highperforming teams and their leaders need to display openness, nondefensiveness, and a willingness and ability to consider and integrate diverse perspectives. These are core ESI behaviors (Druskat and Wolff 2001). Since ESI competencies can be acquired through training as well as nurtured through experience, the first author was curious about which ESI competencies are most valuable in incident command, how well the current wildland fire training and development system is nurturing these important skills, and where we might look for future improvements. To find out, the first author contracted with the second, a leading scholar in the study of ESI and leadership competencies and performance at Case Western Reserve University, to conduct a study of the ESI necessary in incident command (Boyatzis 1982, 2018).

# BRIEF REVIEW OF THE STUDY

Boyatzis and others (2017) interviewed ICs<sup>1</sup> using a critical incident technique in which each IC was asked to tell

1 Although the target population was ICs (type 1 and 2 and Area Command), due to restrictions on use of the Resource Ordering Supply System (which tracks qualifications for wildland fire personnel in the United States), only current Federal employees with an agency email address were eligible to participate.

A.E. Black is a social science analyst for the Forest Service, Rocky Mountain Research Station, Missoula, MT; R.E Boyatzis is a distinguished university professor of Organizational Behavior, Psychology, and Cognitive Science and K. Thiel is a doctoral candidate in Organizational Behavior at Case Western Reserve University, Weatherhead School of Management, Cleveland, OH; and K. Rochford is an assistant professor in the Department of Management, Eccles School of Business at the University of Utah, Salt Lake City, UT.

a story about a time when "he/she felt effective (then ineffective) as an IC." Interviews were recorded and transcribed, then coded for presence and frequency of each of the 12 ESI competencies most consistently related to effectiveness of leaders in various fields (Boyatzis 2018; see the sidebar):

- 1. Adaptability,
- 2. Emotional self-control,
- 3. Emotional self-awareness,
- 4. Positive outlook.
- 5. Achievement orientation,
- 6. Empathy,
- 7. Organizational awareness,
- 8. Inspirational leadership,
- 9. Influence.
- 10. Coaching and mentoring,
- 11. Conflict management, and
- 12. Teamwork.

Interviews were also coded for possible emergent themes that were important for IC performance but not among the 12 ESI competencies.

To determine whether some skills are particularly important, Boyatzis (1982) recommended comparing "outstanding" performers to others. "Outstanding" performers were identified by collecting nominations from peers, bosses, and subordinates (Lewin and Zwany 1976). The sample representing "outstanding" performers was drawn from those nominated by multiple sources. The comparison sample was drawn from the remaining group. This resulted in a list of 34 ICs (17 from each group); however, due to travel, prior obligations, and other difficulties, results were based on interviews of 15 ICs (split between the two samples). Interviewers and coders were blind to which performance group participants were assigned. Only nonagency researchers interacted with the ICs and the resulting data after the initial project invitation.

In terms of the 12 ESI competencies, according to Boyatzis and others (2017), analysis showed the following:

# **Emotional and Social Intelligence Competencies Important for Incident Commanders**

Competencies associated with average and outstanding performance	Competencies associated with outstanding performance
<b>Achievement Orientation:</b> Striving to improve or meeting a standard of excellence.	<b>Emotional Self-Control:</b> Keeping disruptive emotions and impulses in check.
Organizational Awareness: Reading a group's emotional currents and power relationships.	Adaptability: Flexibility in handling change.
<b>Influence:</b> Wielding effective tactics for persuasion.	<b>Empathy:</b> Sensing others' feelings and perspectives and taking an active interest in their concerns.
<b>Conflict Management:</b> Negotiating and resolving disagreements.	Coaching and Mentoring: Sensing others' development needs and bolstering their abilities.
<b>Teamwork:</b> Working with others toward shared goals. Creating group synergy in pursuing collective goals.	<b>Inspirational Leadership:</b> Inspiring and guiding individuals and groups.

Note: The emotional self-awareness and positive outlook competencies were not found to be either distinguishing or threshold competencies for incident commanders.

Sources: Definitions are from the scales of the Emotional and Social Competency Inventory (Boyatzis 2009; Boyatzis and Goleman 1996); the associations with performance are adapted from Boyatzis and others (2017).

Emotional self-control, adaptability, empathy, coach and mentor, and inspirational leadership distinguish outstanding [performance]. ... Meanwhile, achievement orientation, organizational awareness, influence, conflict management, and teamwork [were] necessary competencies for achieving average performance, but not sufficient alone to enable outstanding performance. ... Two competencies—emotional self-awareness and positive outlook—were not found to be either distinguishing or threshold competencies.

Boyatzis and others (2017) identified two emergent themes that provide additional insight into behaviors that distinguish outstanding from average performance among ICs:

- 1. "[A]ppreciation of interpersonal dynamics, demonstrated by the use of pre-season time to focus on building trust among possible team members ... [and] to build relationships and educate agency staff and administrators;" and
- 2. The tendency among outstanding performers to describe "others in more humanizing terms" by emphasizing the relationship between the speaker and subject, such as referring to fireline personnel as "kids out there" or to the public as "families." Dehumanizing language is less personal and turns people into categories, such as referring to fireline personnel simply as "resources."

Given the multiple diverse groups involved in any incident, effectiveness

requires the IC to "see" people—her or his team, line officers, cooperators, and others—sensitively to be able to build relationships. The use of the empathy competency helps, but the use of time, a coaching attitude, and even simple word choice suggest that the outstanding ICs see others more personally.

Results suggest, as evidenced by the presence of five important competencies (sidebar on previous page), that the quality of training and development of fire personnel as they come up through the ranks is good. At the same time, results also suggest an opportunity for more targeted training to consistently cultivate specific ESI skills. This is evidenced by the greater number of ESI competencies and frequency of their use found among the ICs regarded as outstanding by their peers, subordinates, and supervisors.

## POSSIBLE APPLICATIONS

The wildland fire community could use these insights in complementary ways, including:

- Conducting a followup study to confirm these results and test the emergent hypotheses; and
- Reviewing existing training and development programs to identify ways in which the current process might be enhanced to further develop the full complement of ESI competencies.

One way to consider these results is through the lens of new neuroscience research, which indicates that the human brain makes a tradeoff between efforts to carry out a task and efforts to relate to others (Boyatzis and others 2014; Jack and others 2013a; Rochford and others, in press). This emerging work suggests that our brains cannot simultaneously complete both technical and emotional tasks (Boyatzis and others 2014). That is, we can apply information already in our heads to complete a task (called the Task Positive Network, or TPN) or we can be open to new stimuli (such as new information, called the Default Mode Network, or DMN) but not both at

the same time (Jack and others 2013a, 2013b). Learning by paying attention to emotions and to the subtle dynamics of social relationships *only* occurs when our brains are operating in DMN.

In comparing the lists of ESIs for average and outstanding performers (sidebar on previous page), it could be postulated that the ESIs for average performance are more task focused than the ESIs for outstanding performers, which add ESIs associated with relationships. The two emergent themes support this, suggesting that outstanding performers deliberately pay more attention to relationship building and coaching and mentoring, in other words, use more of the DMN (Boyatzis and others 2017). Obviously, both modes are needed for successful incident management; the suggestion here seems to be that effectiveness depends on whether the appropriate mode is selected and how rapidly one is able move between the TPN and DMN.

Let's consider current training and development in light of this. Current wildland fire training and development in the United States rely on both traditional learning (classroom and/or online) and practice (monitored on-thejob training) (NWCG 2018). One could consider these phases as "educational" and "practical," with the combination intended to ensure both cognitive knowledge and demonstrated ability. Ample evidence over the past 32 years in leadership and education studies indicates that a combination of these can effectively develop ESI in adults (Boyatzis and others 2002) and that these improvements can be sustained (Boyatzis 2008). Research suggests that functional performance (that is, the ability to quickly toggle between the DMN and TPN) can be intentionally built as well through deliberate, specific practices (Boyatzis and others 2014). Thus, the current system seems structurally capable of developing ESI competencies. The question is: Do the content and evaluation also support this?

Given the gap between average and outstanding performance in ESI

competencies, in addition to ensuring that the current training and development intentionally target task-related technical skills, the wildland fire community could consider ways to deliberately train and support the development of emotional and social skills such as coaching and mentoring. Lessons learned in executive education highlight the significant role of peers as coaches and mentors, particularly when the focus is on positive reinforcement and joint development, as opposed to focusing on gaps and weaknesses (Boyatzis and others 2013). Although coaching and mentoring comprise only one of the competencies observed in participating ICs, this one competency enables the others to be developed and therefore needs special attention.

Many of the National Wildfire Coordinating Group's (NWCG's) training efforts are focused on building requisite technical skills. However, the interagency wildland fire community, with the NWCG at the center, has also explicitly sought to identify and build leadership competencies (NWCG 2003). Even a brief survey of the NWCG's training and development curricula reveals a system that is constantly being updated, with many updates having the potential to incorporate the kinds of insights discussed here. For example, expansion of the peer networks and ongoing benchmarking and learning established under the "Leadership is Action" framework (NWCG 2008) and expanding the availability of the curricula to nonoperational fire personnel (such as Command and General staff (NWCG 2010, 2014)) have the potential to provide the training and practice grounds for developing critical DMN/ESI skills and the functional capacity to toggle quickly between task- and relationshipfocused leadership.

Thus, it is apparent that training and development structures useful for developing ESI competencies exist. Could they, and how might they, be further optimized to ensure development of *all* critical ESIs?

### LITERATURE CITED

- Babu, M. 2016. Characteristic of effective leadership of community college presidents.
  - 200 p. Cleveland, OH: Case Western Reserve University.
- Black, A.E. 2009. The key decision log: facilitating high reliability and organizational learning. Fire Management Today. 69(2): 5–10.
- Black, A.; Dether, D. 2006. Learning from escaped prescribed fires—lessons for high reliability. Fire Management Today. 66(4): 50–56.
- Black, A.E.; McBride, B.B. 2013. Safety climate in the U.S. Federal wildland fire management community: influences of organizational, environmental, group, and individual characteristics. International Journal Wildland Fire. 22(6): 850–861.
- Black, A.E.; Saveland, J; Thomas, D; Ziegler, J. 2012. Using escaped prescribed fire reviews to improve organizational learning. Final report. JFSP project 10–2–05–1. Boise, ID: Joint Fire Science Program. 31 p.
- Boyatzis, R.E. 1982. The competent manager: a model for effective performance. New York, NY: John Wiley and Sons. 342 p.
- Boyatzis, R.E. 2008. Leadership Development from a Complexity Perspective. Consulting Psychology Journal. 60(4):298-313.
- Boyatzis, R.E. 2009. A behavioral approach to emotional intelligence. Journal of Management Development. 28: 749–770.
- Boyatzis, R.E. 2018. The behavioral level of emotional intelligence and its measurement. Frontiers in Psychology. DOI: 10.3389/fpsyg.2018.01438
- Boyatzis, R.E.; Goleman, D. 1996. Emotional and Social Competency Inventory. Boston: Hay Group/Korn Ferry.
- Boyatzis, R.E.; Stubbs, E.C.; Taylor, S.N. 2002. Learning cognitive and emotional intelligence competencies through graduate management education. Journal on Learning and Education. 1(2): 150–162.
- Boyatzis, R.E.; Brizz, T.; Godwin, L. 2011. The effect of religious leaders' emotional and social competencies on improving parish vibrancy. Journal of Leadership and Organizational Studies. 18(2): 192–206.
- Boyatzis, R.E.; Smith, M.; Van Oosten, E.; Woolford, L. 2013. Developing resonant leaders through emotional intelligence, vision and coaching. Organizational Dynamics. 42: 17–24.

- Boyatzis, R.E.; Rochford, K.; Jack, A.I. 2014. Antagonistic neural networks underlying differentiated leadership roles. Frontiers in Human Neuroscience. 8(114). DOI: 10.3389/ fnhum.2014.00114.
- Boyatzis, R.E.; Thiel, K.; Rochford, K.; Black, A.E. 2017. Emotional and social competencies of incident team commanders fighting wildfires. Journal of Applied Behavioral Sciences. 53(4): 498–516.
- Dreyfus, C. 2008. Identifying competencies that predict effectiveness of R and D managers. Journal of Management Development. 27(1): 76–91.
- Druskat, V.U.; Wolff, S.B. 2001. Building the emotional intelligence of groups. Harvard Business Review. 79(3): 81–90.
- Fox, R.; Gabor, E.; Thomas, D.; Ziegler, J.; Black, A. 2017. Cultivating a reluctance to simplify: exploring the radio communication context in wildland firefighting. International Journal of Wildland Fire. 26(8): 719–731.
- Goleman, D. 1998. Working with emotional intelligence. New York: Bantam. 383 p.
- Jack, A.I.; Dawson, A.; Begany, K. [and others]. 2013a. fMRI reveals reciprocal inhibition between social and physical cognitive domains. Neuroimage. 66: 385–401.
- Jack, A.I.; Dawson, A.J.; Norr, M. 2013b. Seeing human: distinct and overlapping neural signatures associated with two forms of dehumanization. NeuroImage. 79(1): 313–328.
- Jahn, J.; Black, A.E. 2017. A model of communicative and hierarchical foundations of high reliability organizing in wildland firefighting teams.
   Management Communication Quarterly.
   DOI: 10.1177/0893318917691358.
- Kendall, L. 2016. A theory of micro-level dynamic capabilities: how technology leaders innovate with Human Connection. 292 p. Cleveland, OH: Case Western Reserve University. Ph.D. dissertation.
- Koman, L.; Wolff, S. 2008. Emotional intelligence competencies in the team and team leader, Journal of Management Development. 12(1): 56–75.
- Lewin, A.Y.; Zwany, A. 1976. Peer nominations: a model, literature critique and a paradigm for research. Personnel Psychology. 29(3): 423–447.
- Mahon, E.; Taylor, S.; Boyatzis, R. 2014. Antecedents of organizational engagement: exploring vision, mood, and perceived organizational support with emotional intelligence as a moderator.

- Frontiers in Psychology. 5(1322). DOI: 10.3389/fpsyg.2014.01322. eCollection 2014
- Miller, S.P. 2014. Next-generation leadership development in family businesses: the critical roles of shared vision and family climate. Frontiers in Psychology. 5(1335). DOI: 10.3389/fpsyg,2014.01335.
- NWCG (National Wildfire Coordinating Group). 2003. Leadership curriculum design and delivery strategy. NWCG Curric. Mgt. Issue Pap. 40. 3 p. Unpublished paper. On file with: NWCG.
- NWCG (National Wildfire Coordinating Group). 2008. Establishing the framework for "Leadership is Action." NWCG Curric. Mgt. Issue Pap. 93. 2 p. Unpublished paper. On file with: NWCG.
- NWCG (National Wildfire Coordinating Group). 2010. Assignment of course name and number for S–580 replacement course. NWCG Curric. Mgt. Issue Pap. 107. 1 p. Unpublished paper. On file with: NWCG. https://www.nwcg.gov/sites/default/files/issue\_papers/IssuePaper107.pdf. [Date accessed unknown].
- NWCG (National Wildfire Coordinating Group). 2014. Assignment of course name and number for the new leadership course. NWCG Curric. Mgt. Issue Pap. 124. 2 p. Unpublished paper. On file with: NWCG. https://www.nwcg.gov/sites/default/files/issue\_papers/IssuePaper124.pdf. [Date accessed unknown].
- NWCG (National Wildfire Coordinating Group). 2018. National Incident Management System: Wildland Fire Qualification System Guide. PMS 310–1. https://www.nwcg.gov/sites/default/files/ publications/pms310-1.pdf. (24 October).
- Rochford, K.; Boyatzis, R.E.; French, S.; Jack, A. [In press]. Neural roots of ethical leadership and the development of better leaders: the default mode network versus the task positive network. Journal of Business Ethics.
- Useem M.; Cook J.; Sutton L. 2005.

  Developing leaders for decision making under stress: wildland firefighters in the South Canyon Fire and its aftermath.

  Academy of Management Learning and Education. 4(4): 461–485.
- Waldron, A.L.; Ebbeck, V. 2015. The relationship of mindfulness and self-compassion to desired wildland fire leadership. International Journal of Wildland Fire. 24(2): 201–211.