Judge/fail/learn

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CHAPTER 7
VALORIZATION ADDENDUM

"Ever tried. Ever failed. No matter. Try again. Fail again. Fail better."
- Samuel Beckett

7.1 | PURPOSE

The research presented in this dissertation was designed with the explicit purpose of providing organizations with a better understanding of how to improve professionals' judgment quality. In order to achieve this goal, the perspective of workplace learning was chosen. Learning, the process of acquiring new knowledge through experience or novel applications of existing knowledge (Eraut, 2004), is an inherently adaptive process. It allows professionals to continuously improve their judgment quality, and to adapt to continuously changing environments. Over the past three years, insights from the research included in this dissertation, as well as from related projects, have been shared with numerous professionals from domains as diverse as auditing, the petrochemical industry and Learning & Development at private firms and Maastricht University; presentations at specific firms, workshops for the Foundation for Auditing Research, the Dutch Institute of Psychologists, the Institute for Physical Safety, and the Ministry of Infrastructure and Environment. These valorization activities undertaken as part of this PhD project are discussed further below, and followed by an outline of upcoming valorization activities related to this dissertation.

7.2 | CURRENT VALORIZATION ACTIVITIES IN AUDITING

The research presented in this dissertation was carried out in the audit context. Most of the measurements were developed in collaboration with one Big 4 firm, to ensure the relevance of the results for practice. Throughout a three-year trajectory, results have been shared with the participating firm, as well as with other audit firms through the Foundation for Auditing Research. A series of workshops were conducted focusing on two key outcomes of this dissertation: improving judgment quality and learning from errors. These workshops were given to representatives of all

function levels within the audit firms, and also shared in meetings together with members of the departments for quality assurance and compliance.

The starting point of these workshops was the sense of urgency felt by audit firms to further improve the judgment accuracy of their members. An underlying problem that surfaced throughout the interactions with the audit context was the desire to manage the inherent uncertainty of the audit domain (Kahneman & Klein, 2009; Knechel, Krishnan, Pevzner, Shefchik, & Velury, 2013; Shanteau, 1992). This uncertainty appears to be addressed within the audit industry mostly through the (re)design of incentives and procedures, so that tasks become more structured, leaving less room for judgments in order to avoid errors (MCA, 2016; Brouwer, 2017). The research discussed in this dissertation complements these measures. Research on how auditors learn at the workplace provides insights on how these professionals continuously develop new knowledge that allows them to adapt to changes in their work environment. Both perspectives are inherently related: auditors need to possess relevant knowledge to form high-quality judgments; this knowledge then forms the basis for incentives and procedures to stimulate desirable behaviors. Without acquiring the necessary knowledge first, incentives and procedures may not be effective simply because auditors are not able to make better judgments.

The present research identifies four drivers of judgment quality at four different levels, as illustrated in figure 7.1. The task environment, especially when characterized by low validity, will provide individuals with the experience of errors and other critical incidents. This has been shown (especially in chapter 2) to be a significant and positive explanatory factor of judgment quality. In workplace learning literature, external jolts such as errors and critical experience have been identified as critical triggers of the workplace learning process (Eraut, 2004; Marsick & Volpe, 1999). At the firm level, these critical experiences require an environment in which this kind of behavior is not only acceptable, but even more it is encouraged by the organization (Marsick & Watkins, 2003; Putz, Schilling, & Kluge, 2012). Creating a supportive learning (from error) climate communicates to members of an organization which behaviors with respect to learning are desirable. By rewarding the reporting of critical experiences, by role modeling successful learning, by sharing the resulting knowledge, leaders in an organization can effectively design an environment in which all members are enabled to learn. The role that learning (from error) climate plays in professional judgment quality has been especially explored in chapters 3, 4 and 5. A supportive climate for example encourages individuals within the firm (both within and across hierarchy levels) to exchange valuable feedback (chapters 2 and 3) and to provide help to each other (chapters 4

and 5) (Ashford, 1986; van der Rijt et al., 2013). In both cases, each individual, at any level within an organization, can contribute to their own and their colleagues' learning by knowing how to provide effective feedback and help. Finally, the individual professional needs to process the information received from the critical experience itself, by observing others' learning, and information received through feedback and help. Reflective behavior is necessary to, categorize information and create abstract new knowledge that the individual can apply to future events (Boud, Keogh, & Walker, 1985; Kahneman & Klein, 2009; Mezirow, 1990). This learning behavior is inherently nested within the work, and provides opportunities for audit firms and individual auditors to actively improve judgment quality as part of daily practice.
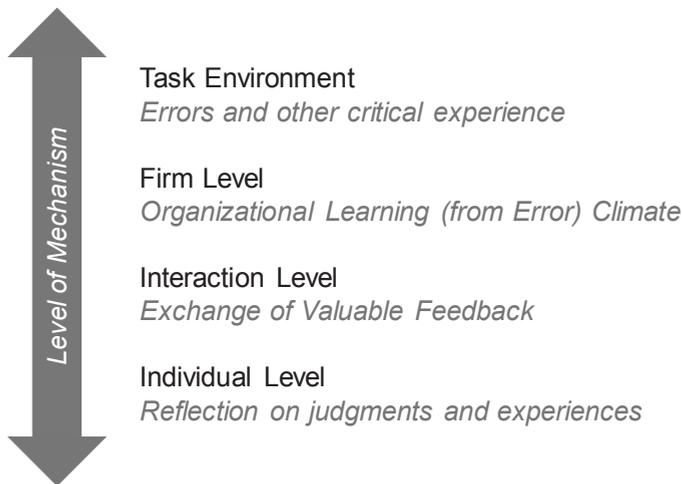
Task Environment
Errors and other critical experience

Firm Level
Organizational Learning (from Error) Climate

Interaction Level
Exchange of Valuable Feedback

Individual Level
Reflection on judgments and experiences

Level of Mechanism

Figure 7.1. Learning mechanisms that drive professionals' judgment quality

7.3 | CURRENT VALORIZATION ACTIVITIES IN OTHER DOMAINS

In addition to sharing the findings of the present PhD thesis with professionals in auditing, related projects were conducted resulting in presentations, workshops and teaching modules for the Dutch Ministry of Infrastructure and Environment, petrochemical companies, the Institute for Physical Safety, the Dutch Institute of Psychologists (NIP), a leading consultancy firm in the Benelux, as well as postgraduate education at Maastricht University. In these meetings, talks focused on how making changes in learning behavior affects judgment and decision-making in complex environments. In the petrochemical industry for example, professionals may face sudden crises in which judgments and decisions

have to be taken under significant time pressure and are associated with high stakes. For example, in collaboration with a colleague outside of the research team behind this dissertation, a series of trainings was developed for chemical engineers who are preparing for coordinating crisis management efforts at a chemical park. The goal of this training was to help future teams to prepare for coordinated judgment formation using the BOB framework (beeldvorming - oordeelsvorming - besluitvorming). This framework aims to structure the judgment process in high-reliability contexts by focusing first on collecting the available evidence, then checking multiple interpretations of the information at hand, before resulting an appropriate decision and plan for action. The BOB framework was used to create awareness to learn systematically how to behave in the event of a crisis, so that the chemical engineers can rely on automated processes in the moment of a crisis that enable bias-conscious judgments and decisions. In these workshops, behaviors of team leaders and members were addressed. Especially the role of structuring behavior and constructive critical communication was emphasized as a means to enhance the group's judgment process. On the individual level, speaking up and exchanging feedback were practiced as a means to avoid common biases, such as overconfidence, confirmation and group think. These workshops resulted in a series of follow-up projects with several firms in the same industry, who all recognize the value of learning and adapting for making high-quality judgments, similar to the participating audit firm.

7.4 | FUTURE VALORIZATION ACTIVITIES

Based on the research presented in this dissertation and on the current valorization activities, several opportunities for future valorization exist. As part of the 53-points plan devised by the NBA (2014), in 2015, the Foundation for Auditing Research (FAR) was founded to connect research to practice with the objective to increase audit quality. All research funded by FAR is selected both by academics and practitioners, and is provided with several opportunities for valorization, including master classes for the participating audit firms, practice notes to be shared via popular outlets in the audit domain, and several (international) conferences to be attended by practitioners and academics alike.

A research project following up on the findings presented in this dissertation received a grant FAR, again with the specific goal to create research relevant for practice. The follow-up project translates the key findings of this project to the team setting, by exploring (1) the relationship between audit quality and team learning behaviors, (2) antecedents of team learning

behaviors at the individual, leader and unit level, and (3) the impact of team learning behavior on changes in audit quality over time (see figure 7.2). The research design includes questionnaires experiments as well as actual performance data provided by the firms themselves, and the research team includes experts on audit quality, team research, and developing minimalistic interventions in practice. Key research questions of this project include:

(1) Which team learning behaviors are related to audit teams' judgment quality and audit quality?
(2) Which team learning behaviors affect changes in audit quality over time?
(3) How do auditors' individual characteristics and characteristics of the work environment interact to produce effective team learning behaviors?

By exploring these relationships, we are hoping to provide audit firms with specific levers of audit quality, this time explicitly taking into account the hierarchical structures in which auditors operate. Among the deliverables of this follow-up project are insights into existing team learning patterns within audit firms, monitoring tools for measuring and steering effective drivers of team learning, and insights into the levels at which audit firms can affect audit quality through team learning behaviors.

In the context of this FAR project, several valorization activities have been executed already and planned to take place. A master class was held for audit practitioners, regulators and researchers that made the role of workplace learning in audit quality accessible to the audience in an interactive manner (Foundation for Auditing Research, 2016). A version of the master class will also be provided to members of the AFM later in 2017. Moreover, a practice note will be published in outlets such as accountant.nl that summarizes the value of the new project for audit practice. During the second international FAR conference this year, further exchange with practice is fostered through interactive sessions. Next to FAR-guided valorization activities, our connections with participating audit firms mean that our insights remain accessible to practitioners pending new results.
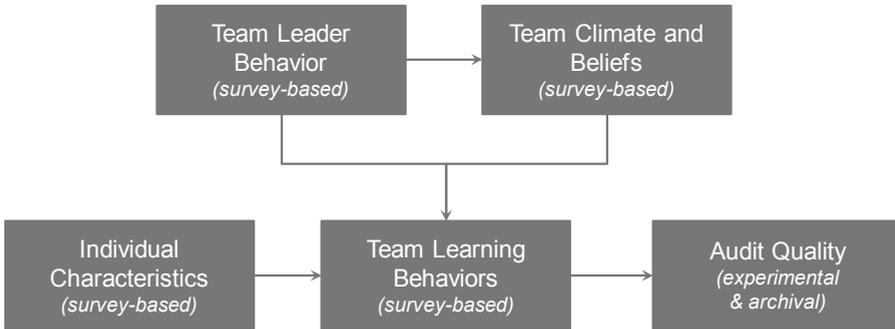
Figure 7.2. Conceptual model of the first follow-up project on the team level

Recently, a second project was submitted for consideration to FAR to provide data collection opportunities for a PhD candidate as a second follow-up to this PhD dissertation. The second project addresses audit quality not through a judgment and decision-making lens, but rather focuses on what enables auditors to strike a balance between pressures for efficiency (e.g. time and budget pressures) and pressures for quality (as expected by e.g. the AFM). Additionally, instead of focusing on the environment's low validity, this project investigates auditors' ability to adapt their approach to balancing efficiency and quality to differing levels of client risk. The conceptual model of this second follow-up project focuses on personal attitudes (such as grit, having a growth mindset, and having a dispositional need for closure) as well as leader behavior and psychological safety as explanatory factors enabling auditors to balance efficiency and audit quality (figure 7.3). Key research questions of this project include:

(1) Which personal attitudes and which leader behaviors affect auditors' focus on efficiency vs. quality when faced with different levels of client risk?
(2) Do a match or clash in personal attitudes across hierarchy levels influence adaptive balancing of efficiency and quality?
(3) How do individual attitudes and leader behaviors / psychological safety / firm culture interact to enable optimal balancing of efficiency and quality, given client risk?

The value for practice of this project lies in the multilevel approach of understanding positive and negative interactions between hierarchy levels of audit firms. It will provide audit firms with specific tools for team composition and optimal leadership that help balancing efficiency and quality, given client risk. If the project gets accepted, then the valorization

potential of the second follow-up project is the same as for the first, ensuring a long-term collaboration with practice and ongoing valorization of our research findings.
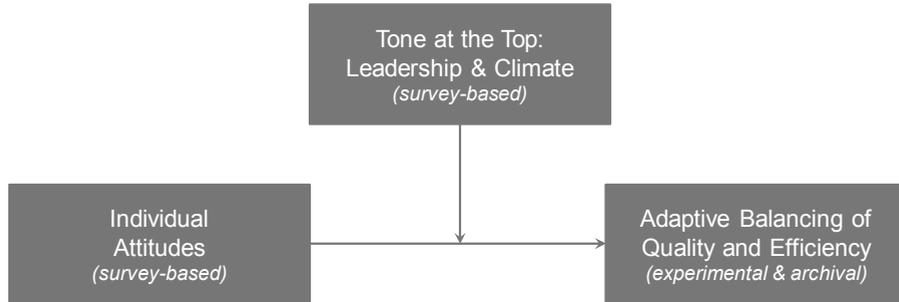

Figure 7.3. Conceptual model of the second follow-up project on the team level

7.5 | CONCLUSION

In conclusion, research presented in this dissertation has been designed with the specific purpose of informing practice, and has been carried our in close collaboration with the audit industry. Focusing on workplace learning as a complementary perspective to incentives and regulatory efforts has resulted in new insights of how audit firms can actively facilitate workplace learning as part of daily activities. The benefits of the workplace learning approach lie in the malleability of all variables, and its inherent adaptive nature, suited for ongoing performance improvement in low-validity environments. From jointly developing representative tasks to regularly sharing and discussing findings, research presented in this dissertation has been valorized not only in auditing, but in other fields as well. Ongoing and future valorization activities are being developed to enable auditors to make high-quality judgments by designing effective learning environments.

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