

Citation:

Lei, Z., & Naveh, E. (2018). Stuck Between Two Lives: The Paradox of Eliminating and Welcoming Errors. *American journal of medical quality: the official journal of the American College of Medical Quality*, 1062860618787641.

Stuck between two lives: The paradox of eliminating and welcoming errors

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Medical errors are a recurring fact in health care organizations. The importance of mitigating and learning from these errors is incontrovertible. Prevailing practices in health care organizations convincingly argue for a “both-and” approach to this goal, meaning that, in a perfect world, health care professionals may simultaneously eliminate and welcome (and thus learn from) errors. Yet health care organizations that do well on both accounts are extraordinarily rare; the number of medical errors in American hospitals has not decreased but rather risen to more than 250,000 per year since the Institute of Medicine published a blockbuster report in 1999¹.

Some health care policymakers, administrators, caregivers, and researchers believe that this problem stems from a lack of commitment to patient safety or insufficient implementation of such “both-and” practices. We challenge this reasoning and suggest that both organizational goodwill and implementation difficulties constitute simplistic explanations. In our opinion, health care challenges are strongly grounded in the current state of the error literature that promotes a “both-and” approach². The dual pursuit of error elimination and acceptance is based on somewhat unrealistic assumptions and general or abstract theoretical reasoning, leaving the underlying mechanisms underspecified. Furthermore, some error theories in use are perhaps too

idealistic or simplistic to capture the complexity of error issues in health care systems. For example, the search for the right balance between two opposite demands to cope with errors is complicated by a vast array of organizational, psychological, and contextual factors.

By understanding the reasons for health care organizations' failure to reduce errors and achieve high liability, we seek to sort out the assumptions, psychological mechanisms, and contextual contingencies coherently associated with current "both-and" practices. Building directly on this discovery, we also shed light on such organizations' lack of success in simultaneously eliminating and welcoming errors.

First, the error literature's current "both-and" framework assumes a straightforward switch between an error-elimination mode and an error-learning mode. Caregivers are expected to readily alternate between a mindset of eliminating errors at all costs and one of welcoming or even generating more errors (for learning purposes). Switching between two contradicting approaches is anything but straightforward. Caregivers in error-elimination mode see errors as negative and intolerable, and they focus on actions requiring precision, rule compliance, and standardization. In contrast, an error-learning or error-embracing mode requires them to think positively about errors and even experiment with them as part of learning. Switching from one mode to another engenders cognitive dissonance. Psychological evidence confirms that individuals experience cognitive, mental, and psychological discomfort and stress when they hold two or more contradictory beliefs, ideas, or values at the same time, or perform an action contradictory to their beliefs, ideas, or values³. To make matters worse, as time pressure and heavy workloads heighten this dissonance, avoiding the conflict-inducing situations and retreating to familiar (i.e., error elimination) ground are highly common and appealing strategies. Even if individual caregivers manage to switch back and forth between the error-elimination and

the error-learning modes, new data paint a sobering picture: the more the frenetic modern workers shift between activities, the less they accomplish⁴. This implies that health care professionals should stick to one mode at a time rather than multitask.

Second, turning to the psychological mechanism, a “both-and” error approach presents an unsettling threat to the health care professionals’ role or professional identity when they are instructed to “err” their ways to patient safety. While the way health care professionals, especially doctors, view errors may change, their adherence to the core of their professional purpose and identity -- “do no harm” and “save lives” -- does not. By their very training, these professionals feel strongly accountable to all patients. When a physician, nurse, or pharmacist commits mistakes in real time, they find their identity and morale strained even if they are not blamed or punished. If, in addition, they are told to welcome errors and discard the very reasons for being in this profession, the resulting role conflicts and cognitive dissonance can be existential⁵. Not surprisingly, then, the practice of both eliminating and welcoming errors sounds imperative in theory, but in practice it loses its appeal for legitimacy because no one in health care wants to appear careless, incompetent, and inferior. The same role identity helps explain why reporting errors in hospitals remains a major challenge and why frontline caregivers opt to solve their problems without telling others. After years of training and practice, they would like to feel proud and heroic about saving lives. The implications of this professional role conflict are that (1) we do indeed have reason to assume that eliminating errors while simultaneously welcoming them is difficult, but (2) this is not because frontline health professionals lack commitment or are resistant to change, but because the ambivalent nature of their professional training and expectations gets them stuck between two lives.

Third, time pressure is a daily stressor in primary care and can significantly affect quality of care. This means that finding time to pause and reflect on recent error experiences, to alternate between different error modes, and to unlearn or relearn things is always challenging. In time-sensitive, high-risk, uncertain, make-or-break acute medical situations, it is amazingly difficult for caregivers to stop, reflect, and alternate modes in the heat of the moment, as Toyota frontline workers would do. One method that might trigger the above-mentioned switch mechanism is to use simulated environments where caregivers can individually and collectively practice regular debriefing and reflection on everyday work, and learn how to alternate between different error-coping strategies. Yet, even this “both-and” drill is not sufficient unless health care organizations inculcate and ritualize this training on switching behaviors and reinforce their relevance every day, given that health care professionals cannot practice the “both-and” error approach on the fly when putting out fires in the field. Therefore, a practical way to both eliminate and welcome errors starts with an indispensable time investment on training and practice by health care leaders. This investment is irreversible in the sense that the result of learning to switch or do “both-and” is to create partly subconscious behavioral channels that are difficult to resist or remove.

Despite widespread interest in the idea of eliminating and welcoming errors and assertions about its enticing benefits, there are many reasons to challenge the normative stories of success. Our difficulty with this established “both-and” view is not so much its central thesis - we indeed agree with a complementary perspective - but its un- or underspecified assumptions, conflicting psychological mechanisms, and circumstantial contingencies, which have not received much attention and consideration. Without peeling many layers and accepting seemingly conflicting observations, health care organizations may continue to look for success in

all the wrong places. We are not suggesting that the widely adopted approach of eliminating and welcoming errors is bad, or that synergy between the two is impossible. The breakthrough occurs when we accept that contradicting assumptions, opposing characteristics, and demanding contexts are central to our investigation and practice.

This work was supported by the European Union's Horizon 2020 Research and Innovation Programme under the Marie Skłodowska-Curie Grant Agreement 702285.

References

1. Makary, Martin A., and Michael Daniel. Medical error—the third leading cause of death in the US. *BMJ* 2016: 353:i2139.
2. Lei Z, Naveh E, Novikov Z. Errors in organizations: An integrative review via level of analysis, temporal dynamism, and priority lenses. *J. of Manage* 2016 July 42(5):1315-43.
3. Cooper, J. *Cognitive dissonance: 50 years of a classic theory*. London: Sage Publications, 2007.
4. On multi-tasking <https://hbr.org/2013/03/the-multitasking-paradox#> HBR 2013 March.
5. Weick KE, Roberts KH. Collective mind in organizations: Heedful interrelating on flight decks. *Administrative Science Quarterly*. 1993 Sep 1:357-81.