

Competence to confidence a ritual of strengths

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Abstract

Veterinarians will face continual challenges throughout their careers. Despite 1,000's of hours of professional training and experience, challenges will arise. In veterinary medicine these challenges range from diagnostic mysteries to complex business decisions. Inevitably, these events will result in failure to some degree. How the professional processes these challenges, confidence wise, will determine the level of competence they are able to apply to future problems and their career.

Professional athletes represent a similar model of trained and challenged professionals that can help veterinary professionals understand how to ease recovery and accelerate growth through a challenge. Athletes use of regular rituals in training, preparation, and recovery are an example of what veterinary professionals should seek to mimic. These rituals avoid accumulations of physiologic and psychologic stress; protecting the athlete's confidence in their own competence. This results in less stress on the individual, more motivation, and a higher degree of flourishing at their craft. Using the science of Salutogenesis, we propose a "Ritual of Strengths" or an interventional model based upon providing the practitioner the skills necessary to respond in a near perfect way to these challenges; building confidence in their own competence. This model will allow high performing veterinary professionals to feel prepared for any challenge they come across.

KEYWORDS: Salutogenesis, Stress, Imposter Syndrome, Strengths, Confidence, Neurobiology

Challenges to professional competence and confidence

At Operators to Owners, we study what it takes to make high performers. These are individuals who can operate constantly at a high level despite its associated challenges. As coaches, we often seek identifiable examples or models of high performance. Professional athletes face similar challenges and are a relatable model for many of our clients. As such, these athletes provide a readily comparable and identifiable model for veterinary professionals.

Similarities between veterinarians and professional athletes abound. Professional athletes have received 1,000s of hours of instruction and practice to elevate to their current level just as veterinarians have received 1,000s of hours of instruction and clinic practice experience. Both professionals must continually learn and elevate their craft to stay relevant. Veterinary and professional athletes both face daily challenges to their professional confidence. They must both learn to conquer the extreme highs and lows associated with their craft.

Victories also pose unique challenges for this model. Becoming too confident after victory can mean embarrassing defeat or overconfidence in the next diagnosis. Likewise, victory can sap the drive or motivation needed for continued growth. Being able to have a replicable model or ritual that can recapture victory again and again is required for long-term high performance and the amplification of success.

Both veterinary professionals and professional athletes face a high degree challenge. This may come in the form of injury, competitive challenges, loss, and feelings of inadequacy. No matter their skill, they will both experience to some degree, loss or failure at some point. These “losses” are unavoidable. When we consider Conklin’s findings that manual laborers make 5 to 7 errors per hour and knowledge workers make 15 to 20 errors per hour, we begin to understand why errors are a natural and expected part of daily labor.¹ Sometimes these errors will go unnoticed. A tipped pass, a missed diagnosis of inconsequence, an incorrect call, or a slip of words. Errors may have no effect whatsoever on the professional or they may be catastrophic.

Learning how to recover when these errors result in failure or when victory is finally realized is key for all high performing professionals. By showing how professional athletes seek to overcome these challenges, we seek to create the framework for a model that young veterinary professionals can relate to and emulate in their own high performing medical practice. To do this the professional must first understand the processes that are eroding their confidence. The author proposes that veterinary medicine use sports psychology to begin to build our own model of “Veterinary Psychology” or what he calls the science of High Performance Veterinary Medicine.

54 **A story of decaying confidence**

55 Once a challenge, error, or failure is realized, it is up to the professional to interpret the result. The individual's unique and ongoing
56 internal story decides this interpretation. This inner story or "attribution" refers to the process of how individuals come to infer the
57 causes of events or behaviors.² Attribution has strong influences upon emotions and feelings. It determines how individuals will relate
58 to problems and people. Ideally, individuals tend to think of their failures as being due to temporary setbacks, externally controllable
59 variables, and specific situations. This leads to positive attribution stories and allows them to move past their failures.

60 Positive attribution stories are more common among high performing professionals. But we do see negative cycles as well, especially
61 among younger professionals. Their internal stories suggest that their failure is a permanent state controlled by who they are and
62 present in every situation.

63 One might think that you could avoid these negative internal stories. Keep your thinking positive and positive attribution stories will
64 follow, right? Not so quick. Daniel Kahneman and Amos Tversky characterized an objection in their 1979 paper titled "Prospect
65 Theory."³ Their research found that humans feel loss to a greater degree than gain. We "value" the impact of an equal degree of
66 success and failure at an unequal level. The positive effect of success is less impactful than the negative effect of the failure upon the
67 individual. Meaning that, no matter how positive we try to see the win, it will never carry the same weight our failures do.

68 You can show professionals how this plays out with two specific questions. First by asking, "What was your most recent loss or
69 failure at work?" Next, ask them, "What was your most recent win or gain?" Almost every veterinarian can find a loss in half as much
70 time as it takes for them to come up with a win. This is how easily "Prospect Theory" alters attribution stories and it is doubly as
71 dangerous and detrimental to young professionals.

72 As young professionals grow into their careers, they tend to experience an increased imbalance between success and failure. This
73 predisposes them to bouts of lost confidence and breeds a mind ripe for negative internal stories. These professionals also have a
74 greater chance of manifesting "Imposter Syndrome," or the psychological experience of feeling like a phony, despite any success you
75 achieve in an area of expertise.⁴ This subsequent increase in negative self-talk elevates their baseline anxiety. This further depresses
76 their career satisfaction and overall well-being. Couple this with a negative attribution cycle and you have an individual primed for a
77 drop in confidence and performance. Professionals experiencing imposter syndrome may be unable to enjoy the victories they
78 generate, believing them outside of their control. This further encourages their negative internal story and "justifies" it.

79 As if the deepening of this negative story wasn't bad enough, Cuncic suggests that imposter syndrome seems to manifest even more in
80 young professionals.⁴ This may exist because imposter syndrome appears to be more common when people are going through
81 transitions and trying new things. The pressure to achieve and succeed, combined with a lack of experience, can trigger feelings of
82 inadequacy in new roles and settings.

83 A common attribution story finds the professional in a series of negative experiences they believe is their direct fault and will follow
84 them forever. This breaks an individual's confidence and feelings of control leading them to a state of "Learned Helplessness."

85 **The onset of learned helplessness**

86 Learned Helplessness is, "The belief that a task or obstacle has an outcome that is outside [the] individuals' realm of control."⁵
87 Discovered in 1967 by Martin Seligman it describes how challenge can progressively destroy motivation until the individual no longer
88 tries to improve their current situation and gives up.⁶ The most famous example of this is the circus elephant.

89 As a 10-foot tall, 10,000 lb animal you would be thinking nothing could contain an elephant. Yet, circuses have infamously trained
90 them to be restrained by something as simple as a wooden peg. As a baby, that elephant was tied to a similar peg that connected to a
91 similar chain. Whenever the baby would attempt to pull away the chain would cut into the baby elephants' leg. After repeated attempts
92 at escape, with pain, blood and futility realized, the elephant gives up. From that day forward it assumes it cannot escape this wooden
93 peg. Physical surrender due to noxious stimuli such as the circus elephant experienced is the common model used to describe this
94 phenomenon.

95 In people we can just as easily induce a helpless state by introducing an impossible knowledge-based problem to an individual.
96 "Learned Helplessness" can occur when you introduce an individual to an impossible task. If the impossibility of this task is not
97 explained to them prior to their attempts at solving it, repeated exposure to this task with encouragement that it is easy and solvable,
98 will eventually induce a state of doubt that erodes confidence until complete surrender is realized by the subject.

99 The author submits three examples of the use of impossible anagrams to induce learned helplessness from Starcke, Moll, and
100 Zooygilr.^{7,8,9} These are common examples of how easy it is to induce this helpless state. During these tests a series of anagrams, or
101 words that can have their letters shifted in such a way to create new words from their composite letters, is presented to individuals. A
102 control group is given solvable anagrams, usually of a very easy variety. While this group is attempting to solve these, the treatment
103 group is given another set of anagrams. However, the treatment group's anagrams are unsolvable and contain no possibilities for new
104 words. While the control group rapidly succeeds at the task, the treatment group is left wondering at their failure; crafting self doubt

105 and negative attribution stories. Ultimately, this results in frustration and eventual realization of the futility of their situation and
106 eventual surrender due to the uncontrollable state induced from a impossible challenge, aka Learned Helplessness.

107 Given how anagram failure induces a Learned Helplessness state, it takes little extrapolation to realize that the daily challenges, errors,
108 or failures veterinary professionals experience could be interpreted as “impossible” problems and subsequently result in a similar state.
109 All it would take is the right internal story, manifestation of imposter syndrome, or a lack of protective factors.

110 The implications of this state on early career professionals are expectedly detrimental. Science has already proven early career
111 failures can induce a learned helplessness like state. Bol showed that research professionals who “fail” early in their professional
112 research cycles, by not winning a grant cycle, went on to receive significantly less cumulative funding.¹⁰ This resulted in less scientific
113 impact over their career. Bol postulated that this was due to a lack of cumulative resources as well as an unwillingness to risk failure
114 again. In essence, the researchers had become “helpless” toward wanting to apply and potentially be rejected again.

115 Failures such as these have significant implications upon career trajectories, even upon young veterinary professionals. Additionally,
116 they can even lead to higher levels of stress and unhealthy biological alterations within the professional.^{11,12} This then has broad,
117 indiscriminate, and deleterious effects upon the neurophysiology of the individual. Further deteriorating their competence and
118 confidence at a molecular level.

119 **Neurologic checks and balances of stress**

120 To truly understand fluctuating confidence, we must also understand stress responses and the associated neurobiological implications
121 upon the professional. This requires the recollection of basic brain anatomy and endocrinology.¹³

122 Our brain contains three different regions that determine our current mental state. The first region, the brain stem, is associated with
123 autonomic or autonomous inputs and outputs such as respiration, heart rate, visceral and somatic pain, as well as gi function. The
124 second region is the limbic system, which is associated with stimuli processing, pituitary regulation, emotion, fight or flight and
125 empathy. The third region is the cortical system, it’s associated with conscious thought, mindfulness, language, and processing.

126 These three systems operate with a complex network of electrical and chemical checks and balances. In the case of ascending
127 stressors, aka "bottom-up" stimuli, the limbic system can take electrical stimuli in from the brainstem in response to a stressor and
128 create learned or habitual reactions to the stimuli. These reactions are then sent to the cortex in the form of electrical and chemical
129 (dopamine, norepinephrine, and glucocorticoids) responses. These chemicals then down regulate neural activity in the cortex,
130 replacing conscious thought or processing in favor of evolutionarily advantageous habitual reactions. This is how we get a flight or
131 fight response and begin to feel flustered or anxious when challenged.

132 Autonomous responses can similarly be controlled from the "top down" by the cortex. These responses can downregulate limbic
133 system secretion of glucocorticoids and even alter the brainstem's autonomic signaling. Allowing for conscious control of our most
134 basic physiologic functions. The cortex can take-on "appropriate" levels of the stress responsive hormones dopamine and
135 norepinephrine and use them to become "more awake." This results in improved neurological processing and stronger connections
136 within the cortical matter. Creating a complex system of checks and balances that works great until the inciting stressor overcomes the
137 cortex's ability to balance the limbic systems signaling.

138 **Confidence induced stress physiology and the implications on competence**

139 As an individual's confidence is challenged their attribution stories, impostor syndrome and failures trigger increasingly greater stress
140 responses. These triggers lead to ever increasing limbic system signals until the cortex's cellular receptors, electrical, and chemical
141 signaling pathways are overwhelmed.¹⁴ Once this occurs it is only a matter of time until the limbic system predominates. Meaning a
142 reactionary stress-based, fight or flight, state takes over.

143 Most professionals that regularly lack confidence in their competence chronically live within this stress-based state. The result being
144 that they often find themselves in a state of uncontrollable stress. The unfortunate reality of this state is not their current state of
145 anxiety or discomfort but also the more chronic physiologic changes that occur due to it.

146 If the professional is repeatedly or continuously exposed to stress, chronic changes to their brain will begin to occur. Arnsten describes
147 loss of cortical mass in individuals or the ability to connect neurons and ideas.¹² Subsequent losses of working memory within the
148 cortex and degradation of the pathways required for controlling limbic system obstruct input from the top down. Creating a vicious
149 cycle that cumulates in even more stressful triggers and cognitive decline.

150 In the short term professionals can expect lowered cognitive function and creative ability. But the confidence-based stressor changes
151 do not end there. Longer bouts of stress also cause prolonged glucocorticoid release from the limbic system.¹⁴ This results in less
152 brain derived neurotropic factor in the cortex which controls neurogenesis, neuronal growth, maturation, and metabolism.¹⁵
153 Opposingly, prolonged stress increases neuronal development in the limbic system. Acting like a training muscle, this area of the brain
154 rapidly overpowers cortical control. Remaining in this chronic state of stress leads to long-term detriments in neuronal balance and
155 health. Ultimately, degrading critical thinking, creativity, and high performance. As Arnsten (2009) summarizes this impact of this
156 degradation upon the modern professional well:

157 *The detrimental effects of stress on [cortical] networks are particularly problematic in the "information age," when [cortical]*
158 *mediated abilities are increasingly needed for success.¹²*

159 Many professionals may ignore these findings due to the classification of the stressors being “chronic.” They mistakenly think
160 themselves immune to the chronic nature of stress accumulation within veterinary medicine. They would be incorrect in this
161 assumption. These changes can happen in as little as one week or even in as little as three unique stressful episodes.^{12,16} This
162 necessitates investigating the definition of acute stress and its classifications.

163 Ulrich-Lai and Herman define stress as, actual or anticipated disruption of homeostasis due to an anticipated threat to well-being.¹³ It
164 is easy to understand that challenges to one’s competence could be stress inducing. Resulting in the described neurobiological
165 changes. Elaborating upon this description we can say acute stressors can come in two major variations, controllable mild stress and
166 uncontrollable mild stress. These are separated by the individual’s ability to feel in “control” of the stressor. This is the point at which
167 learned helplessness and neurobiology intersect.

168 Individuals who feel out of control of their stressor are at a increased chance to experience impaired performance of higher level
169 cortical (cognitive) functions.^{11,12} Jung has shown that when stress increases the resultant emotional outputs from the limbic system
170 can erode our intelligence quotient (IQ) via a complex and less understood interaction between emotional management (or emotional
171 intelligence: EI) and IQ.¹⁷ The end result being a lower functional IQ in the moment.

172 You now understand the cognitive implications of confidence erosion, the causation and impact of the emotional outputs it produces,
173 and its associated stress response. To counteract this response, we must create a ritual that manipulates the professional's perception
174 of acute stress. This intervention must occur in such a way that the professional can feel in control of the inciting factor(s).

175 Additionally, research has also shown that this system must seek to improve the professional’s emotional intelligence and craft a
176 deeper understanding of oneself (also known as EI or self-awareness, self-management, social awareness, and relationship
177 management). This allows them to mitigate the IQ drain associated with stress induced behavioral change. Much like an athlete’s
178 performance may suffer due to “pregame jitters,” challenges to veterinary confidence will erode even the most honed medical
179 competencies. Therefore, it is critical that High Performing Veterinary Professionals have a ritual or routine by which they can
180 overcome or reduce the effects of these challenges.

181 **Stress free confidence via a ritual of strengths**

182 Crafting a single ritualistic plan for stress reduction, improved autonomous control, and emotional intelligence seems daunting. This is
183 a big ask for any single intervention process. However, science already has a field dedicated to such a pursuit; Salutogenesis.

184 Introduced by Aaron Antonovsky in 1979, Salutogenesis seeks to study the states of health rather than disease.¹⁸ Antonovsky wanted
185 to study and define health as not a lack of a disease process but instead as a state of healthful flourishing beyond the “normal

186 physiological and psychological baseline” of that individual. Rather than focus on pathogenesis of disease he wanted to create a
187 science that studied what he called General Resistance Resources (GRR’s). The traits within individuals that allow them to respond
188 and flourish when stressors occurred.

189 Antonovsky argued to achieve this state of flourishing individuals needed to mold these GRR’s into something called a “sense of
190 coherence” or the capacity to respond to stressful situations. He described this sense of coherence as having three unique elements,
191 within which GRR’s could be subgrouped. First, an element of comprehensibility or ability to understand the stimuli causing the
192 stress. Second, an element of manageability or belief that they had the tools to manage the stressor. Third, an element of
193 meaningfulness or the ability to see a stressor as a challenge rather than a burden. Using these three elements as interventional factors
194 we can construct a simple yet broadly applicable intervention plan for creating and protecting professional high performance during
195 stressful states.¹⁸

196 A sense of comprehensibility is the easiest to instill in potential high performing professionals. When working with these individuals,
197 comprehensibility relates to their ability to identify, understand, and process stressful stimuli. This might be a lack of competence,
198 internal doubt, or a societal challenge to them from outside sources. It might be an imbalance in work or life. It could be interpersonal
199 conflict. Or even financial friction. No matter the stressor, the first step is to get them to identify the problem and become ready to
200 consciously address it. Setting them up to break the viscous cycle set up by their stimulated limbic system.

201 Once the individual has grasped the stressful stimuli with clarity, we then establish a sense of manageability. This interventional area
202 focuses upon addressing negative attributions, imposter syndrome, and learned helplessness. This is where the author believes the true
203 power of ritual comes in. By crafting a framework of repeatable ritual, much like an athlete with a pregame routine, we can return to
204 this ritual over and over as new and evolving stressors occur.

205 To accomplish this Operators to Owners seeks to use scientifically validated technologies for it’s “Salutogenic interventions.” As
206 such, we lean heavily upon Peterson and Seligman’s positive psychology research and their strengths-based approaches to
207 problems.^{6,19} This approach seeks to identify an individual’s unique character strengths and leverage them to induce a state of
208 flourishing. In crafting this ritual, we melded their clinical research-based approach with Gallup’s StrengthsFinder 2.0 industry
209 approach.²⁰ This allowed us to ask Donald Clifton’s infamous question:

210 ***What would happen if we studied what is right with people?***

211 This seems like a fitting question to ask as we use an individual’s unique talents to seek to understand salutogenesis and build
212 “strength” and “resiliency.” We have found that people quality build this resilience and belief in self very quickly once they are
213 presented with their strengths.

214 After taking the StrengthsFinder assessment individuals get ranked on 34 unique talents they have. These talents are reflected upon
215 and consciously employed to address challenges. Gallup calls this conscious application of talent an expression of strengths, thus we
216 propose this intervention be called a “Ritual of Strengths.”

217 But knowledge of talents is not enough. If we want to be able to control and build confidence, then we must also consciously apply the
218 talent to make it a strength. Gallup has shown this critical step can make all the difference. Individuals who apply their talents in a
219 conscious manor on a daily basis are six times more engaged at work, 8% more productive and 15% less likely to quit their jobs.²¹ But
220 even with these facts, only 17% of Americans are able to use their strengths at work on a daily basis.²² Knowing these outcomes,
221 managers and employees should seek to leverage strengths as a primary way to flourish at work as well as improve confidence.

222 To manifest this sense of manageability we craft a framework where our talents become our strengths through conscious and
223 intentional behavior. This is accomplished through a technique called Name It, Claim It and Aim It.

224 Using the clarity we achieved from comprehensibility, we understand the problem or stressor we are trying to overcome, and we write
225 it down. Next, we “Name It” or identify the unique talent we want to apply as a strength to the problem. The individual then “Claims
226 It” by citing the aspects of that strength they wish to apply to the situation. Finally, they craft a unique plan or “Aim It” using that
227 strengths skill set allowing them to conquer the stressor. Once applied several times, this process becomes an unconscious conditioned
228 habit. Creating a new default pathway for addressing future novel stressors as well.

229 Antonovsky’s final salutogenic intervention is meaningfulness. This requires the professional to tie the stressor to something
230 meaningful to them. Tying the stressor to them creates a sense of controllability; adding control to a stressful situation eliminates
231 feelings of learned helplessness. Additionally, it integrates the challenge into who they are or want to become. Crafting and instilling
232 confidence as well as providing motivation for the identification and utilization of resources and connections to conquer it. Finally,
233 making the process meaningful to them allows the internalizing of the problem, making it an intrinsically derived issue rather than
234 externally summoned one which reinforces personal control over the situation.

235 When combined, these three interventional steps of comprehensibility, manageability and meaningfulness creates a Ritual of Strengths
236 that builds confidence within the individual; allowing them to overcome and flourish over any future stressor. Ultimately resulting in
237 the creation and maintenance of High Performing Veterinary Professionals.

238 **Bringing it all together**

239 Crafting an intervention where young professionals can rebuild confidence in their competence on their own is a difficult task. No
240 singular intervention can account for all the unique challenges, errors, and failures a professional will encounter. It is the authors

241 belief that the proposed strengths-based intervention, or Ritual of Strengths, can represent a cornerstone of in any veterinary
242 professional's salutogenic toolbelt. It can propel the professional forward and open the door to other more unique professional
243 development interventions as their career and challenges progress. Ultimately resulting in a professional with less self-doubt and
244 overall higher performance; helping our young colleague's manifest their own meaningful work upon the world, while maintaining
245 confidence in their competence to better our profession long into the future.

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