

# A New Model for Risk Taking

by Simon Priest

In this article I present a model (built from existing theories in the fields of psychology and outdoor adventure education) which link elements of risk taking, performance, challenge, attribution, locus of control, emotions, competence, motivation, arousal, flow, and self-efficacy. Risk taking behavior is explained in relation to eustressful and distressful spirals which help participants to become astute: correct in perception of risk and competence in an adventure. The model aids facilitators by explaining the impact they can have on an individual's development by utilizing the appropriate feedback loops to bring about changes in perceived competence. I believe the following theory, diagrammed in Figure 1, addresses the complex interaction of risk and personal competence that makes adventure so challenging!

This competence/risk theory (Priest & Klint, 1992) hypothesizes that people can use personal competence to influence the probabilities of success or failure in an adventure, provided their perceptions are correct. In short, they will be motivated to select risks which suit their level of perceived competence in the belief that they can positively influence the uncertainty of the adventure to a final outcome in their favor.

Five conditions of challenge exist and depend upon the blend of risk and competence: exploration and experimentation (minimal risk and maximal competence), adventure (more competence than risk), peak adventure (equal or matching levels), misadventure (more risk than competence), devastation and disaster (maximal risk and minimal competence). These five conditions of challenge compose the Adventure Experience Paradigm (Martin & Priest, 1986) upon which the theory and model rest.

The model illustrating this theory is a series of linked constructs. The best way to explain the constructs and the pathways among them is by example: the following numbered explanations correspond with the numbers in Figure 1.

---

*Simon Priest, Ph.D., is a faculty member in the Outdoor Adventure Recreation Program at Brock University, St. Catharines, Ontario, Canada L2S 3A1.*

Consider the typical participant engaged in an adventure learning opportunity who is usually somewhat afraid of what lies ahead. The first task set by the facilitator for this individual is a rock climb, which is initially viewed by the individual as unattainable. The discrepancy between the facilitator's view, that it is an easy climb, and that of the participant's, creates an argument within the participant's mind. Resolving this disagreement and attempting the task requires considerable encouragement from the facilitator; ultimately, of course, the choice remains with the individual.

1. Assume, for a moment, that the individual will overcome the difficulty of the climb and will perform with sufficient competence: the participant manages to complete the climb without any falls and with only a few rest breaks.
2. As a result of this performance, the individual will experience a condition of adventure, where personal competence or the ability to climb exceeds the situational risk or the chance of falling, or the less likely condition of exploration and experimentation, where risk is extremely low (Martin & Priest, 1986). This outcome may be seen as a success by the participant.
3. If the facilitator encourages the participant to attribute success to self as being under an internal locus of control (Weiner, 1985) rather than as being due to external factors such as the equipment used, then a positive feedback loop ensues (Selye, 1974), even though it may be stressful. This can be a useful tool for building confidence in an otherwise timid participant.

However, individuals attribute the reasons for their performance outcomes to a variety of causes. These might include ability, effort, luck, task characteristics, attention, and others. Weiner (1985) classified these attributions according to three perceptions: causality (internal vs. external), stability (stable vs. unstable), and controllability (the degree to which the attribution is perceived as under personal control).

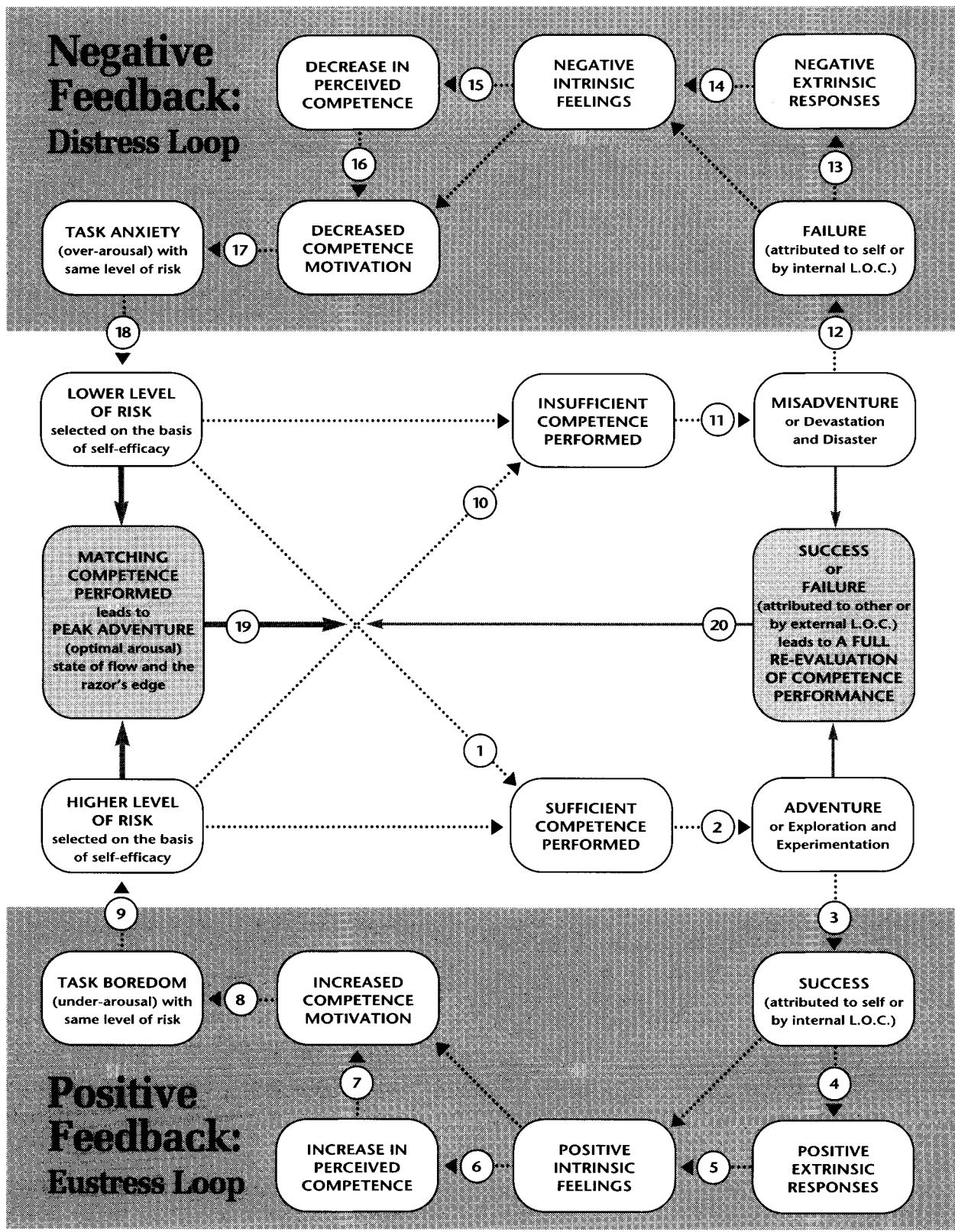


Figure 1: A Theoretical Model of Competence for Human Risk Taking Behavior.

4. Success may be accompanied by positive extrinsic responses, like praise and congratulations from peers who observed the climb.
5. This external support, coupled with the initial internal locus of control where success is self-attributed, will directly bring about positive intrinsic feelings such as joy or pleasure. According to Weiner (1985), an emotional reaction is experienced immediately after an achievement. This general reaction could be either positive (happy) or negative (sad), and is based on the perceived success or failure of the performance. Following this immediate reaction, an individual carefully considers the reasons which might explain the outcome. Once the reasons are established, a secondary set of emotions is experienced, which are attribute dependent. This unique combination of initial general reactions based on outcomes, and secondary effects based on attributions, influences future motivation levels and risk taking behaviors.
6. As a result of feeling good, the individual may perceive an increase in competence or enjoy a greater self-confidence (Harter, 1978).
7. These perceptions will lead to an increased competence motivation or the desire to try a more difficult climb (White, 1959). Specifically, individuals try a task and if successful, then they equate an improved competence at that task. This makes them feel good and in control of their environment. In turn, this motivates them to try something more difficult.
8. Attempting the same task or repeating the climb would result in task boredom (Csikszentmihalyi, 1975) or under-arousal (Ellis, 1973).
9. Therefore, the individual will likely select a higher level of risk or a more challenging route, on the basis of self-efficacy beliefs (Bandura, 1977); an individual's belief that he or she can successfully accomplish a task in a dangerous environment.
- Self-efficacy is based upon information derived from both internal and external sources, and is more than mere self-confidence. It has three dimensions: magnitude (the degree of certainty associated with success as influenced by perceptions of risk and difficulty); strength (the duration of expectations for success despite contradictory information); and generality (the potential for transfer of self-efficacy beliefs from one situation to another). These three dimensions hold important implications for performance through: choice or avoidance of activities; the amount of effort associated with attempts; and how long effort will be sustained in stressful situations. Self-efficacy can influence one, two, or all three of these motivated behaviors to different levels. Bandura also suggested that the relationship between self-efficacy and performance is reciprocal: efficacy expectations influence performance and performance outcomes influence self-efficacy.
10. If the participant performs with sufficient competence again, then the condition of adventure results once more. However, if insufficient competence is performed by the participant choosing a most difficult climb, then he or she will have difficulty getting up the route and may fall more than once, perhaps ultimately giving up when too tired to continue.
11. As a result of this performance, the individual will experience a condition of misadventure, where the situational risk or the chance of falling exceeds personal competence or the ability to climb, or the less likely condition of devastation and disaster, where risk is extremely high (Martin & Priest, 1986). This outcome may be seen as a failure by the participant.
12. If the participant attributes failure to self or is under an internal locus of control (Weiner, 1985), rather than as being due to external factors such as the weather conditions, then a negative feedback loop ensues which is called distress (Selye, 1974) or is unpleasantly stressful, where failures and negatives multiply. (This can be a useful tool for humbling the arrogant or fearless participant by a skillful and sensitive facilitator.)
13. Failure may be accompanied by negative extrinsic responses, like blame and sarcasm from peers who observed the climb (Harter, 1978).
14. This external criticism, coupled with the initial internal locus of control where failure is self-attributed, will directly bring about negative intrinsic feelings such as sadness (Weiner, 1985).
15. As a result of feeling bad, the individual may perceive a decrease in competence or self-confidence (Harter, 1978).
16. These perceptions will lead to a decreased competence motivation or the desire to try easier climbs, or perhaps not to climb at all (White, 1959).
17. Attempting the same task or repeating the climb would result in task anxiety (Csikszentmihalyi, 1975) or over-arousal (Ellis, 1973).

18. Therefore, the individual will likely select a lower level of risk or a less challenging route, on the basis of self-efficacy beliefs that failure may be repeated, where success was expected (Bandura, 1977). If the participant performs with insufficient competence once more, then the condition of misadventure likely results again and this may be seen as failure. However, if competence is sufficient, a return to the condition of adventure will likely result and this may be seen as success, with a return to the positive loop.
19. On the rare occasion when levels of risk and competence end up matching each other, a peak adventure (Martin & Priest, 1986), optimal arousal (Ellis, 1973), and a state of flow (Csikszentmihalyi, 1975) may result. In this case, the participants will ride on "the razor's edge" until dropping off to one side or the other (Zuckerman, 1979). Participants are likely to follow this sequence as they oscillate between the two feedback loops until they become fully astute: both accurate and correct in their perceptions of situational risks and personal competence (Carpenter & Priest, 1989).
20. Lastly, the individual may prevent entry into the negative feedback loop of distress by attributing failure to a source other than self, such as bad luck. Similarly, entry into the positive feedback loop of eustress can also be prevented by attributing success to something else, like the help of the facilitator. In these instances, the locus of control is external and so a complete re-evaluation of personal performance takes place. If the individual reverses the decision and turns success into failure or vice versa, then the direction of travel can be reversed into the other loop. The talented facilitator, acting as a gate keeper, uses this knowledge and "debriefs" the experience so as to optimize the use of either loop as a tool.

## References

- Bandura, A. (1977). Self-efficacy: Toward a unifying theory for behavioral change. *Psychological Review*, 84, 191-215.
- Carpenter, G. & Priest, S. (1989). The adventure experience paradigm and non-outdoor leisure pursuits. *Leisure Studies*, 8(1), 65-75.
- Cheron, E. J. & Ritchie, J.R.B. (1982). Leisure activities and perceived risk. *Journal of Leisure Research*, 14(2), 134-154.
- Csikszentmihalyi, M. (1975). *Beyond boredom and anxiety*, Jossey-Bass, San Francisco.
- Ellis, M.J. (1973) *Why people play*. Englewood Cliffs: Prentice-Hall.
- Ewert A. (1989). Managing fear in the outdoor experiential education setting. *Journal of Experiential Education*, 12(1), 19-25.
- Harter, S. (1978). Effectance motivation reconsidered. *Human Development*, 21, 34-64.
- King, K. (1988). The role of adventure in the experiential learning process. *Journal of Experiential Education*, 11(2), 4-8.
- Martin, P. & Priest, S. (1986). Understanding the adventure experience. *Journal of Adventure Education*, 3(1), 18-21.
- Mitchell, R.G. (1983). *Mountain experience: The psychology and sociology of adventure*. Chicago: University of Chicago Press.
- Mortlock, C. (1984). *The adventure alternative*. Cumbria: Cicerone Press.
- Priest, S. & Baillie, R. (1987). Justifying the risk to others: The real razor's edge. *Journal of Experiential Education*, 10(1), 16-22.
- Priest, S. & Clint, K. (1992). Competence motivation revisited: The influence of self-efficacy, attribution and risk taking. *Journal of Adventure Education and Outdoor Leadership*, 9(4).
- Selye, H. (1974). *Stress without distress*. New York: Lippincott.
- Weiner, B. (1985). An attribution theory of achievement motivation and emotion. *Psychological Review*, 92, 548-573.
- White, R. (1959). Motivation reconsidered: The concept of competence. *Psychological Review*, 66, 297-333.
- Zuckerman, M. (1979). *Sensation seeking: Beyond the optimal level of arousal*. Hillsdale, NJ: Lawrence Erlbaum Associates.