

Chapter 14

Modeling Effects of Emotion and Personality on Political Decision-Making

Application to International Conflict Prevention and Resolution

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The ability to see the world from another person's perspective is critical for mutual understanding and conflict prevention and resolution. It allows us to understand others' subjective perspectives, and to predict, to some extent, their reactions to particular situations or events. This then allows us to identify specific situations or actions which are likely to trigger desirable (or undesirable) behavior, and thereby aid in the prevention and resolution of potential conflicts. A key component of these capabilities is the understanding of the other individuals' values and motivations, patterns of reasoning, and behavior determined by their personalities, and individual reactions that may occur as a result of specific emotions. This type of understanding in turn necessitates understanding how different emotions and traits influence decision-making, and how these influences may result in specific decision-making styles or biases. This chapter describes a generic methodology for representing the effects of multiple, interacting emotional states and personality traits on decision-making, and an associated computational cognitive architecture which implements this methodology. I present results of an evaluation experiment that demonstrates the architecture's ability to model individual tactical decision-making and produce observable behavior differences resulting from distinct individual profiles. I then discuss how the methodology and architecture would be extended to model strategic, political decision-making, and how it could support a variety of activities geared towards international conflict prevention and resolution. I conclude with specific theoretical and pragmatic challenges associated with this approach to computer-aided conflict prevention and resolution.

1 INTRODUCTION

The ability to see the world from another person's perspective is an essential component of the mutual understanding necessary for preventing and resolving conflict. This ability is essential regardless of the type of conflict in question: family misunderstandings and organizational feuds with relatively limited scopes, or international conflicts with significant long-term consequences for entire nations and world peace.

Many factors make this task challenging. Not only must we step outside of our own, deeply-engrained mode of perceiving the world, and see it from a distinct perspective—to 'get inside the other person's head'. We must also understand the other person's distinct modes of thinking and decision-making, specific decision-making biases, and the various emotions they may experience in response to particular events, which profoundly influence both their subjective perceptions and their decision-making. We must understand the values and motivations that guide their goal priorities and goal selection, and the subsequent choice of the best means to accomplish those goals (e.g., Levy, 2003; Jervis, 1976; George, 1979; Kahneman et al., 1982; Forgas, 2003; Loewenstein and Lerner, 2003; Williams et al., 1997). Such in-depth understanding of another individual (or a group of individuals, whether a family or an entire nation) requires not only 'getting inside the other person's head', but equally importantly, 'getting inside their heart'.

Recent emotion research has identified the crucial role of affective states in influencing, often profoundly, perception and decision-making (LeDoux, 1992, 1996; Damasio, 1994, 2003; Williams et al., 1997; Matthews et al., 2000; Matthews and Dreary, 1998; Forgas, 2003; Loewenstein and Lerner, 2003). These influences span the full spectrum of perceptual and cognitive processes that mediate decision-making and determine behavioral choices. Emotion effects range from the mundane (a sudden, intense urge for a particular meal or piece of music) to the significant (choice of one's spouse), and include influences on decisions that are made instantaneously and almost automatically, as well as those which may take days, months or even years. These effects are not limited to the more dramatic expressions of extreme emotions (e.g., table bashing with shoes), but include internal, often subtle, effects on attention (anxiety-induced attentional narrowing and threat focus), on working memory (anxiety-induced reduction in working memory capacity), and inhibition or activation of particular interpretive schemas in long-term memory, which influence problem-solving and decision-making.

Depending on the type and intensity of the affective state, these effects range from necessary, appropriate and adaptive, through maladaptive, to destructive and dangerous. We are generally not surprised that emotions can