

Venezia, 10 Ottobre 2019

Chairman 1: **Stefano Della Sala**

Direttore Operativo ViveracquaLab e Direttore di Laboratorio Veritas Spa

16:30 Relazione introduttiva a cura del Chairman

Legionella: certezze e incertezze

ANGELA MANENTI e STEFANO DI LUCIA - MM SPA

La Radioattività nelle acque potabili: nuove sfide per i laboratori

BEATRICE COLORU - SMAT Spa

Dall'analisi in batch al monitoraggio real time: come cambiano le competenze

CHIARA LAMBERTINI - Responsabile Laboratori del Gruppo Hera

L'interoperabilità dei sistemi informativi di laboratorio

DESDEMONA OLIVA - Gruppo CAP

Le sfide analitiche correlate alla nuova direttiva UE

MARIO DAL GRANDE - Responsabile Laboratorio di Analisi Acque Veronesi
nella rete ViveracquaLab

Microinquinanti organici emergenti: aspetti analitici

VALENTINA GIOIA - Acea Elabori gruppo Acea Spa

18:15 **Valutazioni conclusive**

LUCA LUCENTINI - Istituto Superiore di Sanità

18:30 **Termine dei lavori**

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A Study on a Sequential One-Defender- N -Attacker Game

Zhiheng Xu  and Jun Zhuang *

Government usually faces threat from multiple attackers. However, in the literature, researchers often model attackers as one monolithic player who chooses whether to attack, how much investment to spend, and on which target, instead of treating multiple attackers as independent agents. This modeling strategy may potentially cause suboptimal defense investment if the attackers have vastly different interests and preferences and may not be combined as one in theory. In this article, we develop a sequential game with complete information. This model considers one defender explicitly dealing with multiple unmergeable attackers. Thorough numerical experiments are conducted using ratio and exponential contest success functions under different scenarios. The result is also contrasted with the corresponding single attacker model to study the effect of mishandling multiple attackers. The propositions and observations drawn from the numerical experiments provide insights for government decision making with a better understanding of the attackers' behavior.

KEY WORDS: Attacker-defender game; contest success function; multiple attackers

Risk Analysis

“Chemophobia” Today: Consumers’ Knowledge and Perceptions of Chemicals

Rita Saleh*

THEORETICAL BACKGROUND

2.1. Risk Perceptions and Affect

Laypeople’s risk perceptions (e.g., concerning innovative technologies) are not solely based on facts, with affect having been shown to play an important role (Alhakami & Slovic, 1994; Finucane, Alhakami, Slovic, & Johnson, 2000; Slovic et al., 1997). The affect heuristic postulates that consumers’ feelings regarding a given product drive their risk evaluations (Finucane et al., 2000; King & Slovic, 2014). Indeed, if consumers experience positive affect toward a certain hazard, they are inclined to judge its benefits as high and its risks as low and vice versa (Finucane et al., 2000; King & Slovic, 2014; Slovic, Finucane, Peters, & MacGregor, 2004).

The use of affect is both automatic and quick and can prove more efficient than analytical and cognitive evaluations (Finucane et al., 2000; Gigerenzer & Gaissmaier, 2011). However, relying on affect for decisionmaking does not necessarily produce decisions that are in the individual’s best interests, and in some cases, even lead to biased and

the instructions and safety information on potentially dangerous chemical-containing products (Basso et al., 2014; Kovacs, Small, Davidson, & Fischhoff, 1997). Hence, to ensure the safe handling of consumer products, it is necessary to further understand laypeople’s risk perceptions of chemicals as well as how such perceptions are formed.

2.2. Knowledge and Trust

Research has shown that a significant proportion of laypeople associate even minor doses of, and exposure to, toxic chemicals with the almost certain likelihood of harm (Mertz, Slovic, & Purchase, 1998; Slovic et al., 1995), causing them to view chemicals as either safe or dangerous. Hence, consumers frequently express high levels of concern about the use of chemicals as well as a desire to reduce the risks associated with chemicals at any cost (Dickson-Spillmann et al., 2011; Kraus et al., 1992; Slovic et al., 1995). This dose–response insensitivity might influence consumer risk perceptions while also causing overreactions to stories featured in the media that lead to taking inappropriate actions (Wilkinson et al., 2004). When laypeople’s concerns arise from a lack of basic knowledge about their products, a large-scale educational program is most effective. In terms of chemical safety, negative, ungrounded affect toward synthetic chemicals, or chemophobia, can enhance information processing and lead to taking inappropriate actions (Wilkinson et al., 2004). When laypeople’s concerns arise from a lack of basic knowledge about their products, a large-scale educational program is most effective. In terms of chemical safety, negative, ungrounded affect toward synthetic chemicals, or chemophobia, can enhance information processing and lead to taking inappropriate actions (Wilkinson et al., 2004).

KEY WORDS: Chemicals; chemophobia; knowledge; risk perception; toxicology