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Chapter 19

On the Role of Human Morality in Information System Security: From the Problems of Descriptivism to Non-Descriptive Foundations

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INTRODUCTION

The relevance of security solutions and procedures depends on the motivation of the users to comply with the security solutions/procedures provided. Many studies indicate that users fail to comply with information security policies and guidelines (e.g., Goodhue & Straub, 1989; Parker, 1998; Perry, 1985). It is widely argued (e.g., Loch & Carr, 1991; Anderson, 1993; Parker, 1998; Vardi & Wiener, 1996; Neumann, 1999) that a remarkable portion of security breaches are carried out by organizations' own employees. Several proposals have been made to tackle this human problem, the solutions range from 1) increasing the users' motivation (e.g., McLean, 1992; Perry, 1985; Siponen, 2000; Thomson & von Solms, 1998), 2) using ethics (e.g., Kowalski, 1990; Leiwo & Heikkuri, 1998a, 1998b), 3) organizational/professional codes of ethics (e.g., Harrington, 1996; Straub & Widom, 1984; Parker, 1998), to 4) using different deterrents (e.g., Straub, 1990). With respect to the second issue–Can human morality function as

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a means of ensuring information security?–the existing works can be divided into two categories. The first category covers expressions concerning the use of human morality including Kowalski (1990), Baskerville (1995), Siponen (2000) and Dhillon and Backhouse (2000):

- "Security administrators are realizing that ethics can function as the common language for all different groups within the computer community" (Kowalski, 1990).
- "Proper user conduct can effectively prevent [security] violations" (Baskerville, 1995, p. 246).

The second claims that the use of ethics is useless or, at best, extremely restricted (Leiwo & Heikkuri, 1998a, 1998b).

This chapter argues, following the scholars of the first category, that human morality has a role as a means for ensuring security. But to achieve this goal solid theoretical foundations, on which a concrete guidance can be based, are needed. The existing proposals (e.g., Kowalski, 1990; Baskerville, 1995; Dhillon & Backhouse, 2000) do not suggest any theoretical foundation nor concrete means for using ethics as a means of ensuring security. The aim of this paper is to propose a framework for the use of ethics in this respect. To achieve this aim, a critique of the relevance of ethics must be considered. The use of human morality as a means of ensuring security has been criticized by Leiwo and Heikkuri (1998a, 1998b) on the grounds of cultural relativism (and hacker ethics/hacking culture). If cultural relativism is valid as an ethical doctrine, the use of human morality as a means of protection is very questionable. It would only be possible in certain "security" cultures, i.e., cultures in which security norms have been established–if at all. However, the objection of Leiwo and Heikkuri (1998a, 1998b) is argued to be questionable. We feel that cultural relativism has detrimental effects on our well-being and security. Things might be better if the weaknesses of cultural relativism were recognized. This paper adopts the conceptual analysis in terms of Järvinen (1997, 2000) as the research approach. An early version of this paper was presented at an international conference on information security (IFIP TC11, Beijing, China, 2000).

The chapter is organized as follows. In the second section, the possible ethical theoretical frameworks are discussed. In the third section, the objections to the use of ethics as a means of protection based on cultural relativism (descriptivism) are explored. In the fourth section, an alternative approach based on non-descriptivism is suggested. The fifth section discusses the implications and limitations of this study. The sixth section summarises the key issues of the chapter including future research questions.