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Strategic argumentation ☆

Wioletta Dziuda *

Kellogg School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208, United States

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Abstract

I analyze a game between an uninformed decision maker and a possibly biased expert. The expert receives a set of arguments, and each argument favors one of two alternatives. He can disclose each argument credibly, but cannot prove whether he has disclosed everything. In all equilibria, the biased expert sends messages containing arguments both for and against his preferred alternative. However, the decision maker is not influenced by the unfavorable arguments revealed by the biased expert. The latter is able to convince the decision maker to choose the biased expert's preferred alternative only if he reveals sufficiently many favorable arguments.

JEL classification: D80; D82; D83

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1. Introduction

Consider a first-time camera buyer who is uninformed about its complexity; she does not know which and how many technical specifications are important for taking quality pictures.

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* Fax: +1 847 467 1220.
E-mail address: wdziuda@kellogg.northwestern.edu.

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The salesperson knows all its relevant features and can credibly disclose each of them to the buyer. Disclosure is credible for many reasons; for example, the salesperson may be able to prove the zoom size by demonstrating it, the consumer may be able to test the features by using the camera, or liability laws may make it unprofitable for the salesperson to lie about any feature. Drawing upon everyday experience, one might expect that the salesperson will not fully inform the buyer. This observation is not in line with the unravelling result, which states that when the expert cannot lie, he or she reveals all information even if the parties have conflicting interests.[1] On the other hand, we often see, perhaps somewhat surprisingly, that the salesperson reveals features that seemingly go against his or her interest. In addition to revealing the favorable characteristics of the camera, the salesperson may also mention some unfavorable ones – for example, its short battery life.

There are many situations in which the expert does not disclose all information, but presents arguments which, if interpreted at face value, would go against what the expert is arguing for. For example, a financial adviser might receive a higher commission if investors choose a particular investment option following his advice, but he may nevertheless mention positive aspects of other investments as well. A doctor may receive a higher payment for providing a particular treatment, but may still disclose some drawbacks of this treatment. While trying to influence the reader, an author of an article may mention some arguments in favor of a competing view. The goal of this paper is to study whether these observations can be consistent with a game-theoretic model.

The model has the following structure. A decision maker (she) consults an expert (he) to help her choose between two alternatives. The expert observes a sequence of arguments, each of which favors one alternative, and he can credibly disclose any argument. The expert may be an honest type who reveals all of the arguments, or he may try to convince the decision maker to choose a particular alternative. His type is his private information. The decision maker prefers the alternative which is favored by a sufficient fraction of arguments. She is uninformed, however, about the number of arguments and learns only about the arguments that the expert discloses.

First, the paper shows that, consistent with the camera example, full disclosure of information is not an equilibrium. Unravelling fails because the expert is unable to prove how many arguments exist. A biased expert has an incentive to conceal unfavorable information, and since the decision maker does not know how many arguments the expert has, she cannot force unravelling by forming a posterior unfavorable to the expert every time she receives few arguments.

Second, the paper sheds light on the type of information the expert reveals. The biased expert may reveal all arguments that are favorable to him, but in any equilibrium he may also provide some unfavorable ones. That is, in equilibrium a biased expert uses two-sided messages – messages containing arguments both for and against a given alternative – which is consistent with the motivating examples. The reason for this is as follows. If in equilibrium a biased expert always concealed all unfavorable arguments, the decision maker would discount such messages accord-

[1] Since Grossman [12], Milgrom [22], Milgrom and Roberts [23], and Matthews and Postlewaite [21] first laid out the unravelling argument, subsequent research has focused on identifying situations in which this argument may fail. Viscusi [28] and Jovanovic [15] show that the expert reveals only favorable states when disclosure is costly. In Fishman and Hagerty [9] information transmission is hindered by the presence of decision makers who can verify the event of disclosure, but do not understand the disclosed information. Dye [8] and Shin [24–26] show that unravelling may fail if there is uncertainty about how well informed the expert is. In a dynamic setup, Grubb [13] shows that unravelling may be hindered further if senders want to build a reputation for being uninformed.