

# Medical Diagnosis: A ‘Garbage Can’ Perspective

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## INTRODUCTION

The *garbage can model* is a powerful accounting scheme for addressing choices under conditions of uncertainty. Nonrandom, non-rational actions are basically choices, a specific kind of decision that while having rational elements is not truly rational in the *utilitarian* sense of the term. The garbage can model's developers Cohen, March, and Olsen (1972) initially applied it to decision making in “organizational anarchies” such as universities, but it has more recently been employed to understand problem choice in science (Zeldenrust, 1990; Fisher, 2005).

A key feature of the garbage can model is that it accommodates elements of uncertainty, mainly random and stochastic events or inputs, involving actions and elements which may lack rational basis. This occurs because the diagnostic process, and the diagnosis itself, usually begin and result from human interactions which inherently may not have rational elements. The process creates an *evolutionary trajectory* which becomes modified by the addition of informational items that may reflect uncertainties, opinions, cultural patterning, and themselves be subject to a cluster of constraints which are legal, situational, political, social and psychological.

This paper shows that the garbage can model as modified by Zeldenrust and Fisher can be applied to the problems of medical diagnosis. The analysis begins with a brief look at the sociological history of diagnostics and diagnosis, followed

by a consideration of the diagnostic process an example of problem finding activity, and then shows how the model applies.

## BACKGROUND

Sociologists have extensively studied the diagnostic process from the standpoint of its status in the physician-patient relationship. Talcott Parsons' (1951) discussion of the norms governing the physician-patient relationship not only heavily influenced much of this research, it has advanced development of social exchange theory, itself one of the major paradigms of medical sociology. A recent supportive example comes from Ann Lukits (2012). She reports on a study in Italy which reviewed diabetic individuals who switched from a non-empathetic doctor to one with more patient understanding. The study found that the patients who switched reduced their risk of complications by 41%, which the study attributed to the physician's empathetic understanding of the patient's perspective.

Anne Marie Goldberg Jutel (2011) looks at diagnosis from the standpoint of how physicians choose categories for people whom they see. Her main point is that, as Parsons argues, patients want a diagnosis because it psychologically relieves them of certain obligations of role performance per se in return for some broad cooperation in trying to get better. Jutel's work mostly focuses on (1) how the medical profession has created

new categories of disease over time by finding various bases for illness and (2) some of the societal implications of the profession's expanding its domain of problems.

A paradigm is an important way of *seeing*, but it is also a way of *not seeing*. Parson's perspective directs attention away from the work of physicians-diagnosticians, which only partly requires interaction with patients. Jutel's work also ignores this aspect of physicians' role performance. The authors agree with Cockerham's (1988) point that sociologists' focusing on the physician-patient dyad reflected the idea that medical sociology faced a different set of circumstances in its development than found in most other sociological sub-disciplines, the foremost difference being "the pressure to produce work that can be applied to medical practice and the formulation of health policy" (p. 576).

Further complicating a sociological understanding of the physician's work is that this work has been an evolving "moving target" over the past hundred years. Regardless, there is a need for a sociological understanding of physician *work* both for intellectual and social engineering reasons, just as there is for other occupations. Many of these work studies are quite old: Litwak (1961) on how the nature of the task influences the structure of an organization; Lawrence and Lorsch for this kind of analysis in the context of business organizations (1967); social anthropologists Raymond Firth (1975) and Bronislaw Malinowski (2009) on how the nature of the tasks performed were central to understanding social arrangements

The manner in which physicians relate to patients is only one aspect of their work. Even when the initial encounter of a patient and the medical care system is with a lesser medically qualified individual (*e.g.*, a nurse, or a physician assistant) the physician usually also becomes involved in the process. Thus, the physician must establish some of kind of rapport to take/correct a medical history properly. This relationship, usually through the physician's bedside manner, is necessary for an effective therapeutic relationship with the patient, but is not sufficient to understand a physician's work.

The physician's main work is to collect and analyze sufficient relevant data to determine the nature of the patient's illness and initiate the correct treatment. A successful outcome of this collection-and-analysis process usually requires working with the patient. However, this process also occurs with comatose patients and others whose cooperation is minimal or nil. Sociologically, this suggests that the relationship is only necessary because the raw material of a doctor's work—people-- is *refractory* and some patients must be cajoled into cooperating for their own good in the physician's manipulation. Doctors understand this—the recording of the case history is as much about impressing the patient as it is about having facts for making a diagnosis., Arthur Kleinman (1988) saw recording a medical history as a profound, ritual act of transformation through which illness is made over into disease, a person becomes a patient, and professional values are transferred from the practitioner to the 'case.' Stempsey (2000) remarked that through this act the practitioner turns the sick person as *subject* into an *object* first of professional inquiry and eventually of manipulation.

Paradoxically, the social aspect of medicine has declined as the field of medicine has gained more technical knowledge of the disease processes underlying patient complaints. The practitioners have become less interested in the hand holding that comprised much of their work of the past—and which many, if not all patients to a considerable extent, still yearn for today. Lorber (1984) says many patients "come to doctors' offices with minor complaints and *just need someone to talk to...*" Physicians however see themselves as problem solvers. While some of them accept the need for hand holding to win patient cooperation, others regard hand holding as annoying and demeaning. Lorber, in quoting Cartwright and Anderson (1981) commented that physicians are trained to deal with serious illnesses and life threatening pathologies and that often causes them to view their consultations as 'trivial, unnecessary, or inappropriate.'

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