

## Physician-patient argumentation and communication, comparing Toulmin's model, pragma-dialectics, and American sociolinguistics

Argumentação e comunicação médico-paciente: comparando os enfoques da pragma-dialética de Toulmin e a sociolinguística americana

Argumentación y comunicación médico-paciente: comparando los enfoques de la pragmadialéctica de Toulmin y de la sociolingüística americana

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### Abstract

*This article discusses the application of theories of argumentation and communication to the field of medicine. Based on a literature review, the authors compare Toulmin's model, pragma-dialectics, and the work of Todd and Fisher, derived from American sociolinguistics. These approaches were selected because they belong to the pragmatic field of language. The main results were: pragma-dialectics characterizes medical reasoning more comprehensively, highlighting specific elements of the three disciplines of argumentation: dialectics, rhetoric, and logic; Toulmin's model helps substantiate the declaration of diagnostic and therapeutic hypotheses, and as part of an interpretive medicine, approximates the pragma-dialectical approach by including dialectical elements in the process of formulating arguments; Fisher and Todd's approach allows characterizing, from a pragmatic analysis of speech acts, the degree of symmetry/asymmetry in the doctor-patient relationship, while arguing the possibility of negotiating treatment alternatives.*

*Physician-Patient Relations; Language; Communications*

### Resumo

*Este artigo discute a aplicação de teorias da argumentação e da comunicação ao campo da medicina. Com base em revisão bibliográfica procedeu-se à comparação de três enfoques selecionados pela pertinência a uma concepção pragmática da linguagem: o modelo de Toulmin, a pragma-dialética, e o de Fisher e Todd, derivado da sociolinguística americana. Os principais resultados foram: a pragma-dialética caracteriza o raciocínio médico de maneira mais integral, incorporando elementos das três disciplinas da argumentação: a dialética, a retórica e a lógica; o modelo de Toulmin ajuda a fundamentar argumentativamente a declaração de hipóteses diagnósticas e terapêuticas e, como parte de uma medicina interpretativa, aproxima-se da pragma-dialética por incluir elementos dialéticos no processo de formulação de argumentos; o enfoque de Fisher e Todd permite caracterizar, por uma análise pragmática dos atos de fala, o grau de simetria/assimetria da relação médico-paciente e sustenta a possibilidade de negociação das alternativas terapêuticas.*

*Relações Médico-Paciente; Linguagem; Comunicação*

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## Introduction

Theories of language have been acknowledged and appropriated by the field of health <sup>1,2,3,4,5,6,7,8,9,10,11</sup>, since they offer an important analytical alternative for the area, whose practices, albeit instrumental, are anchored essentially in language. The importance of language and communication in health is due not only to the relational dimension produced by the relevance of soft and soft-hard technologies, but to the necessary consensuses, including on the use of hard technologies and their impacts on health <sup>7</sup>.

This article provides a critical review of texts on some approaches in the theory of argumentation and pragmatic analysis of language applied to the fields of medicine and health education: (a) the pragma-dialectical model <sup>12</sup>, on which we focus more attention; (b) Toulmin's approach <sup>13</sup>; and, (c) a pragmatic communicational approach derived from American sociolinguistics, represented by the work of Fisher and Todd on doctor-patient communication <sup>5</sup>.

The pragma-dialectical approach, represented by van Eemeren & Grootendorst <sup>12</sup> e van Eemeren <sup>14</sup>, is founded on the notion of argumentative discourse as a process that links a protagonist and antagonist who seek to resolve their differences and find a consensus represented by recognition of the best argument's merits. Heavily normative, the approach concedes the need for rules of sincerity and normative correction referring to the formal discursive procedures operating as the warrant of an argumentative process that seeks reasonableness in the Popperian sense reconstructed by Habermas <sup>15</sup>, thus tending to be universalist.

Toulmin's model <sup>13</sup> helps characterize the argumentative structure or set of principal elements of what is considered a reasonable argumentative process. These constitutive elements of argumentative reasoning are linked to the need to justify given theses that represent pretensions from the communicational point of view, beyond establishing logical inferences.

Fisher & Todd <sup>5</sup> conduct an adaptation of the theory of speech acts (Austin <sup>16</sup> and Searle <sup>17</sup>), according to which language is not a mere passive representation of reality, but an action that creates social context. Fisher & Todd <sup>5</sup> seek to characterize doctor-patient communication as determined by the social structure and institutional system (like social organization or power relationship). The authors conduct empirical analyses of the speech acts present in the processes of diagnostic definition and negotiation of patients' alternatives for treatment and follow-up, highlighting this communication's heavy asymmetry.

The three approaches belong to the field of pragmatic philosophy of language, and this was the criterion used in our selective literature review. In the cases of pragma-dialectics and Fisher and Todd's approach, this common element is the theory of speech acts of Austin <sup>16</sup> and Searle <sup>17</sup>. In relation to Toulmin, authors like Santibañez <sup>18</sup> assume that this approach also has an undeclared pragmatic connotation, assuming as such a concept of language as action.

The current article seeks to provide elements for a comparative analysis of the three selected approaches and contribute to the possibility of an argumentative discourse that reinforces the chances (in terms of speech opportunities) of the participants in the interaction, even in conditions of asymmetry of knowledge. The current study prioritizes the context of interaction between patients and doctors and the healthcare team.

## Forms of application of the pragma-dialectical approach of argumentation to public health medicine

Authors of pragma-dialectics such as Pilgram <sup>2,19</sup>, Schulz & Rubinelli <sup>20,21</sup>, Gilbert & White <sup>1</sup>, and van Poppel <sup>3,22</sup> apply the theory of argumentation to the medical consultation and health education. They view the medical consultation as a kind of culturally established communicative activity or form of communication with a largely institutionalized format, like a political debate, medical advice, legal defense, or scientific trial. van Eemeren <sup>14</sup> refers to these specific forms as speech events, in which communication is marked by the search for success based on specific audiences, or by persuasion, which consists of gaining the audience's adherence to a thesis without privileging the arguments' merits. The authors subscribe to the thesis of the need (in this context) for a strategic maneuver, a term coined by van Eemeren <sup>14</sup> to express the attempt to reconcile the argumentation based on merit, on dialectical grounds, and the persuasive orientation of search for adherence, corresponding to wanting a given position to be accepted by the other (rhetoric). Accordingly, the concept of strategic maneuver corresponds to a way of reducing the gap between the pursuit of success and maintaining reasonableness. The author contends that there is no irreconcilable contradiction between the use of rhetoric and that of dialectics, and that the former should be included subordinately in the dialectical proposal.

Pilgram <sup>2</sup> identifies the content of the stages in the process of pragma-dialectical argumentation applied to the medical consultation. In the first

stage, the trigger of confrontation between doctor and patient is the possibility of lack of agreement vis-à-vis part or all of the doctor's advice (or prescription), seen as the fundamental element demanded by the patient and supplied by the doctor. We can also consider the patient's hesitation in following the doctor's advice as the origin of an argumentative process focused on overcoming differences. In the second stage, definition of the procedural and material points of departure, the author identifies an explicit rule, namely informed consent; the implicit rule of the doctor's acting as principal protagonist in the discussion; and the search for (and presentation of) facts pertaining to the patient's health status (material points), which correspond (in the language of pragma-dialectics) to explicitly established concessions such as the results of the doctor's inquiry into the patient's health; and to implicitly established concessions like the results of the patient's physical examination performed by the doctor. The discursive means in this process (third stage) are represented by the argumentation based on interpretation of concessions in terms of medical facts and evidence. The possible products (fourth stage) are: agreement about the patient following the doctor's advice; referral to a specialist; or requesting a second opinion.

In another article, Pilgram<sup>19</sup> points out that in the medical consultation the predominant argumentative scheme is a kind of argument by authority. The following is the representation of the basic scheme in argument by authority:

1 Opinion O is acceptable

1.1 Authority is of the opinion that O

1.1' The authority's opinion indicates that O is acceptable

According to van Eemeren & Grootendorst<sup>12</sup> and Rivera<sup>23</sup>, an argument is the premise that allows basing the point of view in the act of arguing, where more than one premise may exist, and an argumentative scheme is the specific or conventional way by which the premises or arguments relate to the point of view. Argumentation corresponds further to the relationship between premises/points of view. In the case of argument by authority, an authority's agreement with a point of view is represented as a sign or mark of acceptance or the characteristic of truth in the point of view (opinion "O" is acceptable because it is defended by an authority on the subject). In other words, this scheme is characterized as a particular type in which the argument's content (premises 1.1 and 1.1') is seen as a sign of the point of view's acceptability. This type of argumentative scheme is known as symptomatic or sign argumentation<sup>12</sup>.

Argument by authority<sup>19</sup> approaches the appeal to the ethos of rhetoric, where the party that

discusses refers to his own capacity to make his point of view more acceptable. At the limit, this scheme can mean both the patient's effacement as protagonist and a paternalistic relational dynamic in which the doctor knows what is best for his patient. In order for argument by authority to develop an approximation to reasonableness, it must observe certain conditions of argumentative solidity which are characteristic of dialectical discourse. These conditions are: the protagonist in an argument by authority is required to continue defending his point of view if the antagonist asks him to do so; the protagonist cannot display his qualities to avoid the presentation of more arguments to support his point of view; the antagonist must genuinely acknowledge the protagonist's authority in a specific field; the protagonist must correctly express previously formulated opinions; and the protagonist must present an argument by authority at a relevant moment in the discourse.

Pilgram<sup>19</sup> points out that non-observance of these conditions could turn argument by authority into a fallacy, or a type of argument *ad verecundiam*, or an argument that violates some rules of dialectical discourse, like the burden of proof rule, meaning failure to produce all the necessary data and evidence, as well as all the relevant arguments aimed at effectively convincing the patient and eliminating any doubts.

Schulz & Rubinelli<sup>20,21</sup> describe the medical encounter as a dialogue that combines the search for information with persuasion. The authors emphasize that informed consent requires the doctor to provide the patient with all the necessary information for the latter to freely choose to follow a prescribed treatment. In the doctor's task of persuasion, informed consent requires that he adapt to the typical rules of a critical discussion. However, the authors suggest that in the doctor-patient relationship, a rhetorical component predominates, to the extent that in this encounter some conditions of argumentation (in the pragma-dialectical sense) do not hold, such as not keeping participants from raising points of view or challenging points of view, not refusing to defend a point of view when asked to do so, etc. The authors contend that there is an asymmetry in medical knowledge which can mean less capacity by the patient to grasp important information pertaining to the argumentative schemes involved in diagnosis and prescription. The authors further point out that although the patient can bring information that he has researched or incorporated, he lacks the means to contextualize this information and promote a more in-depth or well-based discussion. To this extent, the authors highlight the tension between given

rules of a critical discussion brought by informed consent and a rhetorical function.

Gilbert & White<sup>1</sup>, in referring to medical reasoning, contend that the model combines elements of the three principal disciplines of argumentation, dialectics, logic, and rhetoric, emphasizing that: (a) the essential logical reasoning of the diagnostic workup is the deductive hypothetical model (categorical syllogism), associated with the evidence-based approach to medicine; (b) the definition of treatment and follow-up forms involves exploring alternatives, and this process reveals the dialectical component of a more critical involvement by patients; and (c) the particular insertion of this form of argument in institutions where “speech events” are processed forces turning to the use of persuasive elements to a greater or lesser degree, in the sense of accommodation to the specific sociocultural contexts that impose certain restrictions. We will examine these aspects next.

Reasoning from one or more premises to the conclusion is the basic model for medical reasoning and the argument pertaining to the diagnostic definition. Thus, the reasons leading to a conclusion can be represented as a categorical syllogism, as follows:

Premise A (p1)

The set of symptoms A and signs B are typical of acute cholecystitis

Premise B (p2)

The patient presents all the symptoms A and signs B

Conclusion C

Thus, the patient has acute cholecystitis

Diagnostic reasoning is a type of discourse that must be sustained in front of patients and doctors or other health professionals. To justify the declaration of a diagnosis, it is necessary to establish a differential diagnosis, which represents the dialectical component of the specific argumentation. In this case, the scientific community of specialists is convened in a situation of discursive symmetry, to partake of a theoretical discourse focused on choosing an alternative by consensus. For the authors<sup>1</sup>, the dialectical point of view is necessary to justify both a diagnosis and the definition of treatment and follow-up modalities, a definition which also requires the widest possible analysis of possibilities. Authors like Blair<sup>24</sup> and Fisher<sup>25</sup> concede that the treatment definition is to some extent a process of negotiation of plausible options. Johnson & Blair<sup>26</sup> suggest that the real justification of a conclusion (for example, a diagnostic decision) depends on something more than the mere articulation of evidence leading to acceptance of a conclusion. To be convincing, an agent also needs to articulate responses to potentially alternative positions or objections to the conclusion that is being sustained.

Establishment of the differential diagnosis involves the determination of defining traits of the diagnostic hypothesis, considered in terms of semantic qualifier as the most likely, and discriminating traits, or the descriptors that allow distinguishing between diagnoses. Semantic qualifier is defined here as the strength or degree of certainty of the conclusion or thesis, or its degree of likelihood. The defining traits in the case of acute cholecystitis are: pain in the upper right abdominal quadrant, fever, and chills, among others. Other characteristics would be discriminatory in this case, such as: severe epigastric pain and signs of early or late shock, characteristic of pancreatitis. The identification of these descriptors and their frequency in practice allows linking the qualifiers in relation to the conclusion and its alternatives: “with certainty”, “probably”, and “possibly” can suggest degrees of likelihood<sup>1</sup>.

On the persuasive and rhetorical component involved in clinical reasoning, Gilbert & White<sup>1</sup> emphasize the diversified and multidimensional nature of medical discourse, which seeks to convince different audiences: users, family members, other physicians, other health professionals, the institution, etc. For each audience, the doctors attempt to adapt the language to the respective concepts, values, and cultural traits in order to be able to explore rhetorical discursive techniques that can threaten to compromise the argument’s normative correction, incorporating manipulative or strategic components.

Based on van Eemeren<sup>14</sup>, a normative critical approach is recommended in search of a balance between reasonableness and success, the latter represented by the work of convincing particular audiences<sup>1</sup>.

van Poppel<sup>22</sup> also defends the use of the pragma-dialectical approach for the analysis and design of health education brochures. A brochure does not involve a direct interaction, and it has the clear purpose of modifying behaviors, which encourages a rhetorical orientation. Even so, van Poppel<sup>22</sup> contends that the brochure can be interpreted as an implicit discussion and that pragma-dialectics can help create a better balance between reasonableness and success, avoiding the absolute predominance of the rhetorical function. For the author, a health education brochure should observe the same rigorous rules as a dialectical discussion, like avoiding the manipulation of values and emotions, avoiding false or overblown messages, presenting scientific and statistical data that prove the benefits, discuss side effects, and anticipate possible challenges by suggesting responses to potential objections.

In another study, van Poppel<sup>3</sup> assumes that pragmatic argumentation predominates in the

production of health pamphlets, based on a causal relationship. The implicit idea is that some action should be performed because it presents desirable or undesirable consequences. It involves a statement on the consequences of the action referred to in the point of view and a normative statement on the desirability of such consequences.

### Toulmin's model applied: the basis for an interpretive medicine

A unique application of the theory of argumentation to the field of medicine is the use of Toulmin's model<sup>13</sup> to analyze the correctness or sensibility of clinical arguments. Horton<sup>4</sup> argues that clinicians' development of critical reasoning skills is at least as important as the use of evidence-based medicine, and that this skill corresponds to the capacity to interrogate a clinical argument to discover its weak points or the basis for its validity. For Horton<sup>4</sup>, Toulmin's model allows developing this capacity and is a viable and extremely useful approach for managing proof or evidence and defining the degree of generalization (or external validity) of the clinical conclusions.

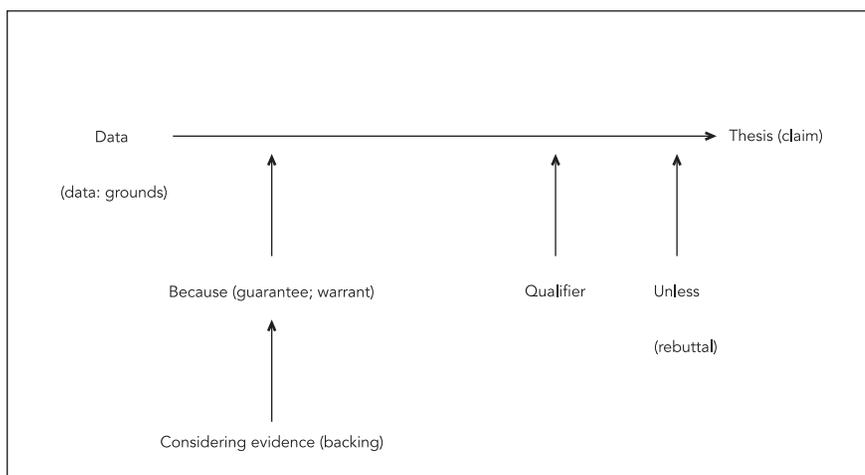
Horton<sup>4</sup> illustrates this model's application with the diagnosis of acute myocardial infarction as the conclusion. Drawing on this case, he identifies the six structural elements of correct arguments established by Toulmin (Figure 1). An argu-

ment proceeds from its grounds (or data) to the conclusion or thesis. The grounds are: dyspnea, chest pain (retrosternal), nausea, and sweats. The conclusion or thesis is: the most likely diagnosis to be considered is that of acute myocardial infarction. The model's third element is the warrant, or the establishment of a bridge between the grounds and the conclusion. What allows moving from the data to the conclusion or authorizing a particular argument? Clinical experience, together with medical training and a reading of the literature teach that mid-chest pain is a common feature of infarction. The warrant here corresponds strictly to the rule that mid-chest pain suggests myocardial infarction. The fourth element is backing or support for the warrant. Backing helps establish the warrant, i.e., how reliable is the evidence used to authorize the argument? In this cases, how reliable are the personal expertise, medical education, and literature and research consulted? The backing corresponds to these elements. The qualifier, the fifth element, represents the conclusion's strength or degree of conclusion: what else could be causing this pain? The sixth element corresponds to the conditions of rebuttal or reservation: a normal electrocardiogram and unaltered cardiac enzymes.

Toulmin's method of practical reasoning would help the doctor examine a conclusion on the patient's management and the meaning of the discoveries reported in a research project. Applied to a clinical decision, this method

Figure 1

The components of reasonable arguments according to Toulmin<sup>13</sup>.



Source: Horton<sup>4</sup> (p. 247).

for managing medical evidence involves four simple steps:

- 1) Establish the warrant. Given the available information on the patient and the conclusion generated in light of this information: why do I think this conclusion is justified? (Experience? A published study?)
- 2) Elucidate the backing or support: how reliable are these justifications? Could they be erroneous? Can I find a better justification? (Through a literature review?)
- 3) Qualify the conclusion: how true is my conclusion? Which sources of error could compromise their validity?
- 4) Finally, define the conditions for rebuttal: what proof or evidence would refute or overrule my conclusion? Can I find such evidence?

For Horton <sup>4,27</sup> the process of challenging the conclusions and assumptions in the clinical decision-making process is part of “interpretive medicine”, an approach that extends beyond evidence-based medicine. According to interpretive medicine <sup>4</sup>, a written or verbal statement issued in a hospital room, a physician’s report, and a scientific paper are all rhetorical pieces. The information transmitted by them aims to persuade someone to consider or support a point of view expressed by the speaker or writer. In this paradigm, Horton sees the physician as an effective reader of texts (medical records or research papers), adding that this conceptualization forces one to think of how to increase reading and evaluation skills in medicine and assign more importance to understanding the limits of generalization in clinical experience and in the research consulted. Toulmin’s approach would help to focus more attention on how evidence is selected, compiled, and generalized to produce an argument, collaborating with the judgment established about the degree of relevance (or lack thereof) in the evidence. Since the conclusions depend on this judgment, the approach would help avoid serious argumentative biases.

### Doctor-patient communication as social organization

Fisher <sup>25</sup> analyzes how decisions on medical treatment are “negotiated”, especially those related to the phenomenon of uterine dysplasia and the dilemma of hysterectomies, which have reached extremely high rates, with unnecessary cases, and secondary medical and cost problems. The author assumes that within a gynecology consultation and in the area of human reproduction, doctors and patients engage in questioning strategies and the doctors assume a certain way of presenting the information pertaining to the decision on treat-

ment alternatives. The exchanges of information in the acts of questioning and providing information are a kind of discourse as strategic communication, associated with the goal of choosing a treatment alternative. The strategic nature is defined more clearly as an attempt to steer the communication towards a specific alternative.

Particularly interesting is the idea that in the act of questioning, the doctor seeks to characterize the patient’s degree of competence or adjustment to the medical knowledge model concerning the patient’s recognition of his problem. According to the approach, this level of discursive competence relates to how to strategically steer the treatment choice. For less discursively competent patients it would not be as necessary to present all the alternatives, and such patients would be subject to narrower options, determined by a series of more general, social, organizational, and corporative conditioning factors. The author exemplifies this with the risk that medical residents, who need surgical training, could tend to force a hysterectomy on poor and/or minority patients, with lower discursive competence.

In relation to patients’ strategies, the author argues that patients raise questions in response to information given by their doctors on treatment options. Despite patients’ structural and discursive constraints, these strategies would have the potential to change the direction of the treatment decision. In the context of an admittedly asymmetrical relationship, it would thus be possible for patients to alter a decision, considering their particular practical concerns.

Fisher <sup>25</sup> identifies two strategies for providing medical information, linked to the decision on treatment alternatives: strategies of “presentation” and “persuasion”, considered mechanisms of negotiation. “Presentation” strategies represent “soft-sell” of alternatives. They correspond to the most common decision, in light of the medical argument and the social or reproductive argument, suggested as the more “usual” form of treating the disease, without many details, for example with cryosurgery of the affected area. “Persuasive” strategies seek to explain or specify how information on treatment decisions should be interpreted. They correspond to “more difficult” situations such as the negotiation of a hysterectomy. The author cites the example of a patient with a history of birth control problems, abortions, several children, and financial limitations. The medical resident attempts to promote the hysterectomy alternative, although there is still no evidence that the cancer has spread and no biopsy has even been performed. The argument is that removing the uterus means no longer having to worry about birth control, hemorrhages, etc. A persuasive strategy specifies the basis on

which a treatment decision should rest, and this process explores the reasons that deeply affect patient, especially in the emotional and sociocultural spheres.

Todd<sup>28</sup> applied an adapted version of the theory of speech acts to analysis of the inherent communication during patient consultations in birth control programs. The author assumes that the communication is a discourse performed predominantly by certain types of speech acts: questions, answers, or reactive, assertive or declarative, and directive acts. The author ignores expressive and commissive acts<sup>17</sup>. Her analysis contains various levels, one of which refers to the distribution of speech acts performed by the doctor and patient in two clinics, one private and the other public, in the United States.

The study shows the asymmetry around the preponderance of the doctor's questions, directives, and explicative affirmations. Patients ask for very little, do not formulate directives, and make very few affirmations. They generally limit themselves to answering. In the patient's case, answers tend to predominate. The work of Fisher and Todd has inspired Cerny<sup>29</sup>, who also researches the distribution of speech acts in the various phases of the medical consultation, concluding that asking is basically the doctor's prerogative and that the patient asks very little, thus indicating a blatant internal asymmetry. The diagnostic workup and physical examination predominantly feature the doctor's questions and the patient's answers, more than half of which are of the yes-and-no type. During definition of the treatment, the number of doctor's declarations increase, while directives occur during the physical examination and definition of treatment and are extremely succinct. Declarations and directives by the patient are very rare. A small part of the consultation time is spent on explanations by the doctor about the patient's health and specific problem.

### Elements for a comparative dialogue between the approaches

A pragma-dialectic approach to argumentation<sup>1,2,3,12,19,20,21,22</sup> provides elements for the study, critique, and design of forms of clinical and health practice that would allow compensating for the asymmetry of knowledge by competently developing a combination of persuasive and critical-dialectical aspects of the argumentation that characterizes communication between healthcare professionals and users. This characteristic related to contexts of cooperation and normative correction<sup>15</sup> requires a pragmatic-dialectical model especially capable of meeting these requirements, i.e., fo-

cused on the application of rules that can guarantee that the discussion involved in the doctor-patient discourse is as correct as possible.

Toulmin's model<sup>13</sup> is another interesting pragmatic approach, since it allows anchoring the arguments in evidence-based medicine and beyond, in the sense of inserting the evidence in a broader argumentative process that includes other components such as the cultural context of users and other specific audiences, which are part of the backing for the warrant, the semantic qualifier, and the reservation (Figure 1). The justification for diagnostic and therapeutic decisions involves bringing to the surface the basis or evidence that operates as the premises which allow (starting from the rules or the warrant) reinforcing decisions along the lines of interpretive medicine. This approach has been acknowledged<sup>4,27</sup> for its usefulness in determining the degree of generalization of the conclusions, which depends on the definition of differential diagnoses, treatment options, and data for rebuttal that force dosing the strength of the conclusions. This component correlates with pragma-dialectics in the sense of a justification based on the differential diagnosis, other opinions, and multiple possibilities for intervention.

Toulmin's model has been criticized by authors like Habermas<sup>15</sup> and van Eemeren & Grootendorst<sup>30</sup>. Habermas points out that Toulmin limits the pretensions of validity to the institutional fields, thus rejecting a universalist orientation, and limits himself to the logical plane of products, overlooking dialectics and rhetoric. Meanwhile, van Eemeren & Grootendorst<sup>30</sup> feels that Toulmin's predominant orientation is rhetorical, since in his model the truth values of the propositions are sanctioned by the beliefs and other intentional states of a community that becomes audience and that thus decides and allows certain inferences and argumentative contents. In Toulmin, the criteria to evaluate arguments are internal in relation to situated practices, and the model is interpreted by some authors as an argumentative model whose objective is to evaluate the degree of justification of a thesis in a context that is not necessarily interactive, consisting of dissonant positions. Still, van Eemeren et al.<sup>31</sup> and Santibañez<sup>18</sup> identify dialectical elements in Toulmin's model. The possibility of a counter-argument inherent to the modalizers and to the conditions of rebuttal would allow for a dialectical orientation. Furthermore, in Toulmin's model the repetition of the basic argumentative structure in a relationship between protagonists and antagonists focused on the search for the most reasonable argument could be interpreted as a dialectical process. Or as an ordered dialogue of argument and question-objection between par-

ties that attempt to reach consensus through correct argumentation. For us, just as pragma-dialectics, Toulmin's approach could be interpreted as a model that simultaneously contains elements of dialectics, rhetoric, and logic, although his work has been a strong critique of formal logic in the name of an informal or factual logic. The latter is not limited to traditional deductive and inductive reasoning, expands forms of reasoning in light of what is observed in daily communication, reinforces the need for substantive evidence and contents, and is based on historical phatic patterns situated in concrete cultures <sup>15,18</sup>.

This approximation of the two models is in line with the predominant conception in the field of the theory of argumentation that the latter is inherently dialectical and also encompasses elements from other disciplines in the field, rhetoric and logic. The two models would thus be appropriate for the analysis and design of forms of medical and health practice, since medical reasoning, forms of health communication, and doctor-patient communication simultaneously display logical, rhetorical, and dialectical elements.

The approach by Fisher & Todd <sup>5</sup>, Fisher <sup>25</sup> and Todd <sup>28</sup> is important for the identification and critique of the asymmetry, the identification of linkage between the socio-political and institutional contexts, and the communicative interaction that characterizes this relationship, as well as the in-depth inquiry into the specific characteristics of the persuasive strategies widely used by doctors. However, the non-incorporation of components of the theory of argumentation, the reduction of clinical communication to the exercise of persuading the patient (without considering other audiences), and exaggeration in the critique of medicine (viewed as a power perspective) are aspects that explain a negative vision that fails to clearly present the possibility of an argumentative process guided by rules and the search for reasonableness. This reading overlooks the possibility of an argumentative process between peers (professionals), an essential part of the justification of decisions, a process in which a more symmetrical relationship takes shape. Although acknowledging the need to involve patients in the negotiation of alternatives, this view is quite moderate and skeptical about the odds of a less manipulative type of discourse. In a relative paradox, the authors suggest a deliberate investment in improving communication to deal positively with the crisis in the medical system. Table 1 presents a comparative model of these three watersheds, considering the incorporation of elements of dialectics, rhetoric, and logic.

We see promise in viewing the doctor-patient discourse as a process that raises various preten-

sions of validity in the Habermasian sense <sup>15</sup>. Thus, in the pragmatic conception of language we have pretensions of truth that refer to the objective world (germ theory, evidence-based medicine); pretensions of normative correction pertaining to the social world (medical ethics, informed consent, cooperation, trust), and pretensions of sincerity referring to the subjective world (attempting to convince without resorting to tricks or strategic maneuvers, etc.). Importantly, these different pretensions link dialectically in the communicative action that refers simultaneously to the three worlds and encompasses all the participants in the interaction, including users <sup>11</sup>. In relation to the pretensions of truth pertaining to medicine of the body, although doctor-patient communication is not a relationship of equal discursive opportunities, this asymmetry can decrease as a function of education, circulation of medical information, cultural development, and medical evolution influenced by pressure from more demanding users <sup>11,21,22</sup>. Furthermore, in the historically constructed normative context, medical authority is legitimate, as is the patient's right to second opinions and clear and correct information. For example, patients are generally received by teams that include specialists who maintain a symmetrical relationship with each other, typical of a theoretical discourse directed towards diagnostic precision and treatment alternatives. Despite this basic asymmetry, doctor-patient communication can meet the inherent requirements for other pretensions, normative correction, and authenticity. The relationship can be genuine and grounded in a normative body that institutionally consecrates the right to health and to the necessary information for decision-making deliberately involving the patient. It is possible to have a relationship with maximum possible correction, based on ethical considerations, despite the asymmetry and unequal grasp of medical knowledge. This view allows an approach to doctor-patient communication that is halfway between pure communication and pure argumentative discourse, as the equivalent of therapeutic critique, perhaps more modest, problematizing contexts of power and asymmetries <sup>11</sup>.

Pragma-dialectics and Toulmin's model allow glimpsing traits of dialectical processes that make doctor-patient communication something richer than the simple exercise of institutional medical power. Dialectics <sup>15</sup> is an argumentative procedure that corresponds to regulated, correct, and sincere interaction, with thematization of pretensions or points of view, implying a hypothesis-based stance and utilization of reasons and evidence, allowing a critique of fallacies or distorted modes of communication.

Table 1

Comparative elements of the three currents of thought considering aspects from the basic disciplines of the theory of argumentation.

Approaches	Dialectics	Rhetoric	Logic
Pragma-dialectics	Informed consent.  Differential diagnosis through defining and discriminatory traits. Analysis of alternatives and responses to objections (concerning treatment alternatives).	Adaptation to the various audiences involved in medical care. Authority's argumentative scheme.	Hypothetical-deductive reasoning.  Elements of informal logic.
Toulmin <sup>13</sup>	Modal qualifiers. Rebuttal.	Argumentation is institutionally conditioned. Adaptation of discourses to these institutions.	Predominance of informal logic.  Critique of formal logic.
Fisher & Todd <sup>5</sup>	Treatment decisions are partially negotiated.	Important presence of persuasive strategies. Asymmetry of speech acts makes the doctor-patient relationship a strategic communication.	Does not explicitly address Logic as a discipline of argumentation.

## Resumen

*El artículo discute la aplicación de teorías de la argumentación y la comunicación en el campo de la medicina. A partir de una revisión bibliográfica se procede a comparar tres enfoques seleccionados por pertenecer a una concepción pragmática del lenguaje: el modelo de Toulmin, la pragmadialéctica y el de Todd y Fisher, derivado de la sociolingüística americana. Los principales resultados fueron: la pragmadialéctica caracteriza la comunicación médico-paciente de manera más integral, destacando elementos de las tres disciplinas de la argumentación: la dialéctica, la retórica y la lógica; el modelo de Toulmin ayuda a fundamentar argumentativamente la declaración de hipótesis diagnósticas y terapéuticas y, como parte de una medicina interpretativa, se acerca a la pragmadialéctica por incluir elementos dialécticos en el proceso de formulación de argumentos; el enfoque de Todd/Fisher permite caracterizar, a partir de un análisis pragmático de los actos de habla, el grado de simetría/asimetría de la relación médico-paciente y plantea la posibilidad de negociar alternativas terapéuticas.*

*Relaciones Médico-Paciente; Lenguaje; Comunicación*

## Contributors

Both authors participated in all stages of the study design, wrote, analysis, and revision.

## Acknowledgments

The authors wish to thank the School of Psychology, Universidad Diego Portales (Santiago, Chile) and Sergio Arouca National School of Public Health, Oswaldo Cruz Foundation (Rio de Janeiro, Brazil) for providing the space for this discussion.

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Submitted on 07/Oct/2014

Final version resubmitted on 04/Apr/2015

Approved on 03/Jun/2015