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## Is God a Placebo?

### Key Words

Intercessory prayer · Placebo · Non-specific factors · Judgment Analysis · Clinical trial methodology

### Summary

Every treatment, in classical no less than in unorthodox medicine, includes a so-called 'placebo' component. Such ingredients are more accurately described as non-specific factors (NSF), for several reasons, including the fact that they are not invariably pleasing. The purpose of the title of this contribution is to provoke a discussion of NSF, leading to their classification and the description of a quantitative method (based on Judgment Analysis) of estimating the amount of «placebo-ness», or 'non-specificity', attributable to any treatment, whether surgical or intercessory prayer.

### Schlüsselwörter

Fürbitte · Placebo · Unspezifische Faktoren · Judgment Analysis · Methodologie der klinischen Prüfungen

### Zusammenfassung

*Ist Gott ein Placebo?*

Jede Behandlung, in der klassischen Medizin ebenso wie in der unorthodoxen Medizin, beinhaltet eine sogenannte Placebo-Komponente. Aus verschiedenen Gründen werden solche Komponenten treffender als unspezifischer Faktor (NSF) bezeichnet, unter anderem deswegen, weil sie nicht ausnahmslos eine günstige Wirkung haben. Der Titel dieser Arbeit soll eine Diskussion über NSF auslösen und es so ermöglichen, sie zu klassifizieren und eine quantitative Methode (basierend auf Judgment Analysis) auszuarbeiten, die es erlaubt, den Grad der «Plazebohaftigkeit» bzw. der «Nichtspezifität» zu bestimmen und die auf jede Art von Behandlung – ob chirurgischer Eingriff oder Fürbitte – anwendbar ist.

### Introduction

Some time ago, Richard Dawkins asked 'Is God a Virus?' [1] and answered his own question with a 'yes'. John Bowker has criticized a thesis that is offensive to many, in his book of the same name [2]. Bowker has also rejected Dawkin's subsidiary suggestion that God may be a placebo, but he and others seem to have paid little serious attention to this milder and apparently undemonstrable corollary.

The *title* of the present paper would appear to require that two controversial terms be defined: God and placebo. Although the first has received much more attention, and for a much longer time than the second, neither is yet showing signs of exhausting its interest. But the *object* of the paper is not to list, review or classify the definitions of either God or placebo, but to offer a perhaps somewhat unusual approach to the problem of definition itself, illustrated in regard to placebo; and, if this proves to have sufficiently ro-

bust advantages, to wonder if the method may not be applied more generally – possibly even to exploring definitions of God.

My qualifications for daring to enter this dangerous arena are of doubtful validity, but include the following. In the early 1960s, a student, having identified me as an reasonably objective sceptic, prevailed upon me to join him in planning and carrying out the first randomized double-blind clinical trial of prayer. At about the same time, four years of collaboration with Michael Balint opened my eyes to deeper aspects of a subject that I had already had the temerity to begin teaching clinical students, namely the doctor-patient relationship. As a human psychopharmacologist I was already deeply concerned then, and have been ever since, by the large and inconsistent contribution made to the beneficial as well as toxic effects of even the most specific therapy by non-specific factors. One such factor is often still inadequately or inaccurately described as a placebo; others, seldom described at all, are the character and influence of the clinicians themselves. And I have become convinced

over the last ten or twelve years that not only is quality of life the outcome measure that is always of the greatest interest to the patient, but that it is sometimes the only outcome measure that is available to the clinician. My attempts to measure this real but difficult variable have led to the study of ways used by patients and others to combine so-called soft and hard information in arriving at consistent evaluations of their internal and external environments.

This exposition therefore divides into four related, brief discussions: on the trial of prayer; on levels of diagnosis; on the study of one kind of definition strategy, called Judgment Analysis, and its application to the study of quality of life; finally, on how this may be rationally applied to the consideration of non-specificity and other seemingly unyielding problems.

### The Clinical Trial of Prayer

The report of this investigation has been described by Feinstein as one of the best papers ever published in the 'Journal of Clinical Epidemiology', then known as the 'Journal of Chronic Diseases'. This does not deserve mention merely as a matter of pride, but also of necessity, for it is not possible to describe the trial in critical detail here [3].

Briefly, its design followed a sequential comparison of pairs of hospitalized patients, matched for age, sex and indication, suffering either from severe rheumatoid or psychiatric disease. One member of each pair was randomly allocated to the 'Prayed-for' group. Prayer was offered by members of intercessory groups accustomed to praying regularly for patients who were usually personally known to them. In our trial, however, the prayer groups were only furnished with a brief vignette, under an alias, of each patient to be

treated, and were at no time allowed any opportunity to visit or even identify the patient in question.

There was no control 'treatment; but, as all patients received the conventional therapy prescribed by their physicians, the trial might still not be considered unethical were it to be performed today. However, informed consent did not have to be obtained thirty-five years ago, and no patient was told that he or she was participating in a trial.

As each pair of evaluations of change over a four week period (better, no change, worse) came in, the comparisons (prayer patient result superior to control, or the reverse) were plotted on a sequential path. They were striking, to say the least (fig. 1).

The pathway headed straight upwards to the boundary that would have indicated statistical significance in favour of prayer, hung two further results just short of attaining it and then fell away with no further deviation to insignificance. One of the two physicians who had contributed patients to the study, asked for his explanation of this spine-tingling result, thought for a moment before suggesting: 'God laughed'.

### Levels of Description

Remarkably, this result was achieved in terms of the outcome measures conventional at that time: In other words, what would today be called observations on 'Health Status' – the standard clinical measures appropriate to the diseases in question, such as morning stiffness and sedimentation rate, or reports of sleep disturbance and responses to an anxiety questionnaire. Quality of life was as unconceptualized at that time as informed consent.

A recent plan to repeat the study (comparing different kinds of prayer as well as directing it to broader indications) had chosen quality of life as the most appropriate, sensitive and comparable outcome measure for all patients, regardless of the indication from which they suffered. However, the proposal was not enthusiastically received by the appropriate committee of the granting agency to which it was submitted (from participation in the decision of which I had, as a member, naturally abstained).

Today, levels of investigation of health concerns, including health status and quality of life, are usually represented in some such way as in table 1: hard information – results of laboratory, CAT scans and other investigations; the clinical examination, or assembly of what in Anglo-Saxon medicine are called 'signs'; and the recording of the 'symptoms' expressed by the patient spontaneously or in response to questioning. It is also customary to divide the dimensions, or domains, under which information is collected, into the five also shown in table 1: physical, cognitive, affective, social and economic. In recent years, this pentad has been increasingly felt to be insufficient: some have considered that an 'environmental' dimension is also needed, to estimate perceptions of and reactions to the patient's world that may have a profound affect upon his or her quality of life, such as various kinds of pollution, including time and noise, and other ways in which we greedily destroy our common tree of life. Although strictly speaking these matters are non-

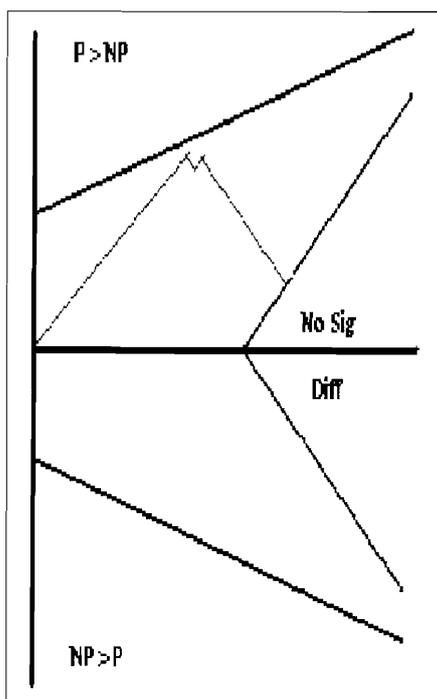
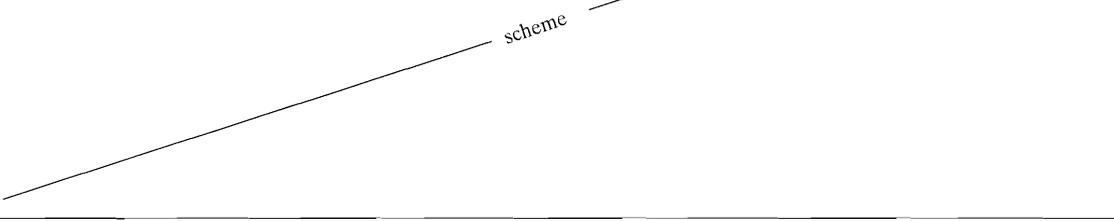


Fig. 1. Sequential path.  
P = Prayer group;  
NP = no-prayer group

**Table 1.** Quality of life: levels and dimensions

Levels	Dimensions						
	Physical	Cognitive	Affective	Social	Economic	(Environmental)	(Spiritual)
Impairment							
Lesion							
LABORATORY							
Disability							
Sign							
CLINIC							
Handicap							
Symptom							
INDIVIDUAL							
QoL 1 ('State')							
QoL 2 ('Trait')							
QoL 3 ('Fate')							



medical, attitudes towards them may nevertheless be changed by medical intervention, and may play a valid part in the estimation of the quality of life of many individuals.

Current methods in the evaluation of quality of life have passed to a deeper level, by the use of such methods as those of investigators in Dublin, McMaster and elsewhere [4–6]. It is interesting to speculate that there are different strata of quality of life, that may perhaps be compared with the so-called ‘states’ and ‘traits’ of the personality psychologists: There may be a ‘state’ quality of life that is very much a matter of the moment – whether the day began well or ill, whether the chief frowned or smiled, and so on – and a more permanent ‘trait’ quality of life that reflects more stable attitudes – to one’s health, family, friends, emotional life and so on. And it is not fanciful to suggest that there may lie beyond this, or beneath it, a layer that is even more fundamental and perhaps generally immutable, representing a position in regard to such matters as Paul Tillich’s definition of God as ‘the name for that which concerns man ultimately’ [7]. This links spirituality and quality of life in the manner that we have been discussing, but the label it has been given in table 1 (‘fate’), though perhaps easy to remember, is not entirely satisfactory. This ‘philosophical’, ‘religious’ or ‘spiritual’ level was initially treated as a dimension. In any case, it seems to be needed, for it is mentioned more and more frequently as a factor in the quality of an increasing number of lives. Somewhere, too, room should be found for diagnosis of the individual’s need for and reaction to the provision of information about his or her medical status, or to the failure to provide such information to patients who desire it.

**Definitions of Quality of Life**

There are almost as many definitions of Quality of Life as there are investigators, although this assertion depends upon the way in which ‘definition’ is itself defined. But a simple taxonomy is sufficient for a preliminary sorting. There are external definitions, those that are provided by an authority of greater or lesser standing: an academician, an investigator, a politician or administrator

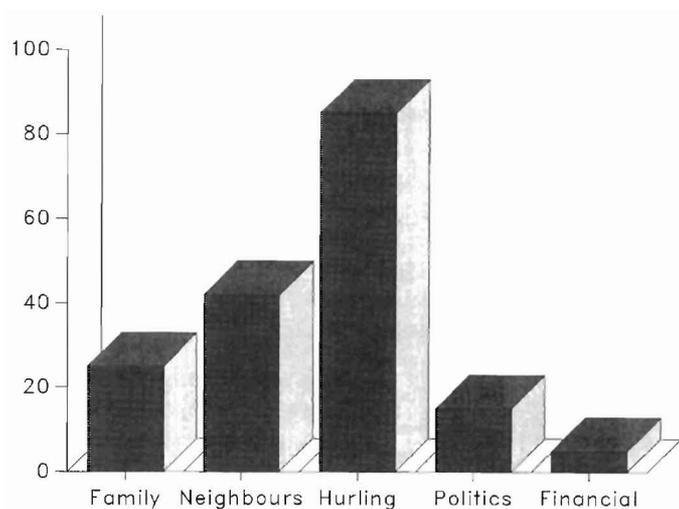
basing health policy upon inadequate enquiry; and there are the internal definitions provided by or founded upon the perceptions, reactions, attitudes and opinions of the individual concerned. This creature, of which each of us is a unique example, has nevertheless until rather recently been treated as of little importance; but after increasingly frequent, if rather shy, appearances in the academic undergrowth, our real-life existence is now considered to have at least face and perhaps even construct validity.

Here the taxonomy again divides. There are definitions and corresponding methods that, though in the first place derived from numbers of individuals, are afterwards applied by investigators to completely different individuals or groups; and there are definitions elicited from the specific individual who is the current object of concern. These external and internal definitions may respectively be called, with only a hint of prejudice, irrelevant and relevant.

**Judgment Analysis**

How can such information about matters as important but intransigent as quality of life be turned into useful, comparable quantities? One frequently used method is based upon Social Judgment Theory, and is known as Judgment Analysis [8]. Detailed descriptions can be found in many places, of which a recent excellent example is to be found in a special issue of *Thinking and Reasoning* [9]. Another account is of special relevance to medical contexts [10].

Very briefly, Judgment Analysis requires, first, the identification of the factors or *cues* that each judge (for example, individuals assessing their own quality of life) considers to be personally relevant: not those found in the standard questionnaire, nor those proposed by an investigator or other external authority convinced of the general validity of his or her own point of view. Typically, between four and seven cues are volunteered by most individuals invited to describe the cues of most importance to their quality of life; such as finances, family relations, opportunity to gamble and other recreational activities, work and so on, as in the case of a not untypical but nevertheless thoroughly individual Irishman who took part in a recent study in Dublin (fig. 2).



**Fig. 2.** A quality of life profile.

**Table 2.** Calculation of quality of life

Factor	Weight	Rating	Product	
Family	0.3	35	10.5	} Total: 36.0
Neighbours	0.4	45	18.0	
Hurling	0.2	15	3.0	
Politics	0.05	80	4.0	
Financial	0.05	10	0.5	

Next, methods of varying degrees of sophistication (and relevance to state, trait or fate) can be used to assess the importance of each cue, the *weight* attributed to it by the individual in question. Then the current standing of each cue, the individual's degree of satisfaction with it, is *rated*. Finally, the individual's quality of life is estimated by multiplying each factor weight and its current rating, and summing the products (table 2).

### Factors Contributing to Non-Specificity

Judgment analysis has been applied to many different kinds of problems: to the solution of management-labour conflicts, to the determination of faculty salaries, to the selection by an American police force of a bullet that is at the same time as incapacitating yet as destructive as possible, and so on. It can be applied to many other problems, including judging the proportion of non-specificity in any treatment, from hysterectomy to hydrotherapy, from penicillin to prayer. In following the scheme previously outlined, it should be remembered that the choice of cues, their weighting and rating are all matters for the individual judge. Consequently, the following are those of importance to me (table 3): factors in the therapist, in the patient, in the intervention and in the environment. Others will not necessarily agree with all or any of them. To the four cues chosen, I have at first attributed equal weights. However, these too will vary from subject to subject and from case to case. This variation can also be taken care of, as is also illustrated in table 3.

**Table 3.** Non-specificity cues and weights

Cue	Weight	
	Equal	Selected
Therapist factors (age, personality, etc.)	2.5	1.5
Patient factors (suggestibility, etc.)	2.5	3.5
Intervention factors (regimen, etc.)	2.5	3.5
Environmental factors (diet, etc.)	2.5	1.5

**Table 4.** Non-specificity of interventions

Cue	Prayer (blind)	Prayer (open)	NSAID	5-Fluorouracil
Therapist	0	5	3	5
Patient	0	0?	3	3
Intervention	0	2	3	5
Environment	0	1	2	4
Equal weights (max.: 50)	0	20	27.5	42.5
Selected weights (max.: 50)	0	16	28.5	41.5

In this model, there is no polarisation between conventional and unconventional medicine, and there is no polarisation between specific treatment and the so-called placebo. A continuum connects them, representing the degree of specificity of any treatment that lies upon it. Weighting the factors unequally, to represent a personal judgment that the suggestibility of the patient is of more importance than the personality of the therapist, for example, makes relatively little difference.

According to the examples given (table 4), if prayer is known by the patient to be employed, this kind of treatment is almost maximally non-specific. More non-specific, only, is prayer of which the patient is unaware; the influence, the presence of the numinous. Others will have very different, although perhaps not diametrically opposite views. But the method proposed here is general and useful. For each problem of definition, the cues that are relevant to its solution can be stated explicitly, the cues rated and their weights established and, by multiplying each rating by its weight and summing the products to place it upon an appropriate continuous scale that allows its comparison with similar items.

Religious beliefs do not enter into every individual's discernment of factors that are personally important. Nonetheless, it may be that every investigation that relies upon the acquisition of the patient's physical and psychological history should acquire a spiritual history as well. At present, most investigators may feel themselves as incompetent to do this as they felt about taking a psychological history say, twenty years ago – and perhaps still do.

His Holiness the Dalai Lama has expressed his opinion, in speaking of the relationship between medicine and belief, that 'If both doctor and patient are Buddhists, then both will pray and meditate, and that is good. If neither is a Buddhist, the medicine will still be useful'; whereas His Grace the Archbishop of Canterbury has opined: 'It is good to know that the pilot of the plane is a believer, and prays; but I'd like to be assured that he also knows how to

pilot a jet.' These superficially similar statements seem to attribute opposite weights to the factors of professional expertise and prayer.

The problem is not to decide which is correct. The vacuum left by the absence of philosophically 'correct' judgments of value systems has unfortunately been invaded by self-appointed judges of politi-

cal correctness, but this should not prevent us from considering the extent to which individual as well as cultural systems of belief support or interfere with the interactions between doctors, their patients and the therapies that link them. A quantitative approach to one aspect of this problem, the contribution of non-specificity to therapeutic effectiveness, has been briefly outlined here.

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