

# SORITES

σωρίτης

An International Electronic Quarterly of Analytical Philosophy  
Indexed and Abstracted in *THE PHILOSOPHER'S INDEX*  
ISSN 1135-1349  
Legal Deposit Registration: M 14867-1995

**Editor:**

**Lorenzo Peña**

Institute of Philosophy, CSIC  
[Spanish Institute for Advanced Studies]

---

## Associate Editors:

Guillermo Hurtado  
(Universidad Nacional Autónoma de México)

Francisco J. D. Ausín  
(Centre for Logic and Juridical Analysis,  
Spain)

Peter J. King  
(University of North London)

---

## Editorial Assistant:

Raymundo Morado  
(Universidad Nacional Autónoma de México)

---

## Regular-Mail Address:

c/o Prof. Lorenzo Peña  
CSIC—Institute of Philosophy  
Pinar 25; E-28006; Madrid; Spain  
Fax +341 564 52 52; Voice Tph +341 411 70 60, ext 18

---

## INTERNET ACCESS:

<<http://www.ifs.csic.es/sorites/>>

<<http://www.filosoficas.unam.mx/~sorites/sorites.htm>>

Editorial e-mail inbox (esp. for submissions): <[sorites@fresno.csic.es](mailto:sorites@fresno.csic.es)>

Inquiries and subscription-requests: <[sorites@pinar2.csic.es](mailto:sorites@pinar2.csic.es)>

---

**Issue #09 — April 1998**

# **SORITES (Σ Ω Ρ Ι Θ Σ)**

ISSN 1135-1349

Issue # 09. April 1998

Copyright © by SORITES and the authors

---

## **MAIN INTERNET ACCESS:**

**<http://www.ifs.csic.es/sorites/>**

<sorites@fresno.csic.es> (Editorial e-mail inbox, esp. for submissions)

<sorites@pinar2.csic.es> (Inquiries and subscription-requests)

---

## **Other InterNet access:**

(1) By anonymous ftp: open ftp.csic.es, then go to directory /pub/sorites

(2) From the Americas the following URL is more convenient:

**<http://www.filosoficas.unam.mx/~sorites/sorites.htm>**

---

Please send both your Regular-Mail contributions and books for review to the Editor's address:

**Prof. Lorenzo Peña**  
**CSIC - Institute of Philosophy**  
**Pinar 25**  
**E - 28006 Madrid**  
**Spain**

\*\* \*\* \*

Voice Tph Nr. +341-4111098

Fax Nr. +341-5645252

## **SORITES**

ISSN 1135-1349

### **BOARD OF EDITORIAL ADVISORS:**

Rainer Born . . . . . Johannes-Kepler Universitaet Linz (Austria)  
Amedeo Conte . . . . . University of Pavia (Italy)  
Newton C.A. da Costa . . . . . University of São Paulo (Brazil)  
Marcelo Dascal . . . . . University of Tel Aviv (Israel)  
Dorothy Edgington . . . . . Birbeck College (London, UK)  
Graeme Forbes . . . . . Tulane University (New Orleans, Louisiana, USA)  
Manuel García-Carpintero . . . . . University of Barcelona (Spain)  
Laurence Goldstein . . . . . University of Hong Kong (Hong Kong)  
Jorge Gracia . . . . . State University of New York, Buffalo (USA)  
Nicholas Griffin . . . . . MacMaster University (Hamilton, Ontario, Canada)  
Rudolf Haller . . . . . Karl-Franzens-Universitaet Graz (Austria)  
Terence Horgan . . . . . University of Memphis (Tennessee, USA)  
Victoria Iturralde . . . . . University of the Basque Country (San Sebastian, Spain)  
Tomis E. Kapitan . . . . . Northern Illinois University (USA)  
Manuel Liz . . . . . University of La Laguna (Canary Islands, Soain)  
Peter Menzies . . . . . Australian National University (Canberra, Australia)  
Carlos Moya . . . . . University of Valencia (Spain)  
Kevin Mulligan . . . . . University of Geneva (Switzerland)  
Raúl Orayen . . . . . UNAM (Mexico)  
Jesús Padilla-Gálvez . . . . . Johannes-Kepler Universitaet Linz (Austria)  
Philip Pettit . . . . . Australian National University (Canberra, Australia)  
Graham Priest . . . . . University of Queensland (Brisbane, Australia)  
Eduardo Rabossi . . . . . University of Buenos Aires (Argentina)  
David-Hillel Ruben . . . . . London School of Economics (London, UK)  
Mark Sainsbury . . . . . King's College (London, UK)  
Daniel Schulthess . . . . . University of Neuchâtel (Switzerland)  
Peter Simons . . . . . University of Leeds (Leeds, UK)  
Ernest Sosa . . . . . Brown University (Providence, Rhode Island, USA)  
Friedrich Stadler . . . . . Institut «Wien Kreis» (Vienna, Austria)



**PARTIALLY RESOLVING THE TENSION BETWEEN  
OMNISCIENCE AND FREE WILL: A MATHEMATICAL  
ARGUMENT**

**Joseph S. Fulda**

Moral theology is given force by punishment and reward, which is, in turn, comprehensible only in the presence of free will. Yet free will has been bedevilled with philosophical difficulties, not least among them the tension between omniscience and autonomy. The paper, building on a theory of temptation and sin published in *Mind*, gives a partial resolution to that tension using a mathematical argument.

**SORITES** (Σ Ω ΠΙΤΗΣ), ISSN 1135-1349

Issue #09. April 1998. Pp. 53-55.

«Partially Resolving the Tension between  
Omniscience and Free Will»

Copyright © by SORITES and Joseph S. Fulda

**PARTIALLY RESOLVING THE TENSION BETWEEN  
OMNISCIENCE AND FREE WILL: A MATHEMATICAL  
ARGUMENT**

**Joseph S. Fulda**

**DEDICATION**

**The author would like to dedicate this paper, with love and respect, to his father and teacher, Rabbi Dr. Manfred Fulda.**

One of the thorniest and most intriguing problems in the philosophy of religion has been the tension between man's free will and God's omniscience — or more exactly, His foreknowledge. For if He knows in advance what we will do, in what sense can our doing it be free?: the limited sense of the compatibilist perhaps, but that does not really satisfy: It works around the problem rather than working to resolve it. A standard answer, dating to at least Maimonides, is that the phrase «in advance» is misused. What God knows, He knows timelessly: time is a measure of change in the material and the corporeal; God is outside the realm of the material and the corporeal: His knowledge is therefore qualitatively different from ours and exists, as it were, above and without time.<sup>1</sup> This answer, too, seems to work around the problem rather than addressing it squarely.

In this paper, we sketch a partial resolution to this classical problem by concentrating not so much on God's omniscience as on His omnipotence. Of course, His omnipotence poses no direct problem for free will, since it is understood that any agents that He has decided to make autonomous will, up to the limits of their autonomy, be free actors. But while God does not control the autonomy of free-willed agents, He certainly does control the environment within which they act; in fact, He controls it omnipotently, i.e. completely.

---

<sup>1</sup> See, for example, Maimonides, *Guide of the Perplexed* (M. Friedländer, translator; Hebrew Publishing Company, 1881), III: XX.

In an article in *Mind*,<sup>2</sup> «The Mathematical Pull of Temptation,» we put forth a theory of temptation that can be used to show how God's omnipotence matters, how it can be used to rescue His omniscience in the face of free-willed agents. Let us briefly review this theory.

It is assumed by preachers and laymen alike that our steadfastness when presented with an object of temptation depends on (a) our character, and (b) the tempting strength of the object. To paraphrase Henry Ward Beecher on character and temptation: Temptations *without* imply desires *within*. A man ought not to say «How powerfully the devil tempts,» but «How strongly I am tempted.»<sup>3</sup> As for the pull of the object, it is the conventional view that the stronger it is, the more likely we are to succumb and the less likely we are to resist.<sup>4</sup>

We put forward an alternative account of temptation which suggests that both character and the object of temptation may not, in some cases, be considerations, let alone the dominant considerations, in explaining behavior in the face of temptation.

We arranged a simple thought experiment, which we referred to as *the red case*. A man is placed in a solitary room with a red button and nothing else. For twenty-four hours, he remains alone in that room. Pressing the red button at any time initiates a sequence of sinful events which will culminate in his obtaining the object of his temptation. However slight the pull of the temptation behind the red button, it is a man of very rare will who will be able to resist its continuous lure. The man, that is, is as weak as weakest moment and the red case is conjunctive in nature: A conjunction is as false as its falsest conjunct.

We also arranged the converse thought experiment, which we referred to as *the black case*. A man has already initiated a sequence of events which will result in his obtaining the object of his temptation. Now, he is placed in a solitary room with a black button and nothing else. For twenty-four hours, he remains alone in that room. Pressing the black button just once disrupts the sequence of events that would otherwise produce for him the object of his temptation, and the temptation will have been successfully resisted. However strong the pull of the tempting object, the pull of conscience nearly guarantees that the man will leave his confinement having

---

<sup>2</sup> Joseph S. Fulda, «The Mathematical Pull of Temptation,» *Mind* 101(April 1992): 305-307.

<sup>3</sup> See Henry Ward Beecher's *Life Thoughts* (Philips, Sampson and Company, 1858), pp. 73-74.

<sup>4</sup> Jack Katz, *Seductions of Crime: Moral and Sensual Attractions in Doing Evil* (Basic Books, 1988).

pressed the black button. The man, that is, is as strong as his strongest moment and the black case is disjunctive in nature: A disjunction is as true as its truest disjunct.

We continued by presenting the mathematics behind these intuitions. Even if the man in the red case is a very good man, one who normally resists temptation, and even if we can quantify this judgment by saying that *a priori*, and without our intervention and the lure of the red button, he would succumb to a single presentation of the tempting object only one time in one hundred (and *this* number *does* depend on the object), simple probability calculations show that for the 4800 presentations in the red case he is virtually certain ( $1 - .99^{4800}$ ) to succumb. (See [2] for more details and for the derivation of 4800.) Likewise, even if the man in the black case is very easily swayed by the slightest of desires, and even if we can quantify this judgment by saying that *a priori*, and without our intervention and the pull of the black button, he would succumb to a single presentation of the tempting object fully ninety-nine times in one hundred (and, again, *this* number *does* depend on the object), simple probability calculations show that for the 4800 chances he will have to resist a single presentation he is virtually certain ( $1 - .99^{4800}$ ) to resist it. Notice that in either case switching .99 and .01 would make *no* perceptible difference for any significant number of opportunities to succumb or resist.

Now, God's omnipotence places Him in control of the opportunity structure of the world with which we are all daily faced, while man's autonomous will places him (primarily) in control of the likelihood of his succumbing or resisting an opportunity (what we call character), so the man-God interaction comes down to  $a^b$ , with man in control of  $a$  and God in control of  $b$ , and as everyone knows,  $b$  dominates  $a$ . That is the crux of the (partial) resolution of the tension between omniscience and free will: God sets up the opportunity structure within which we sin or do good and He can force an outcome out of even truly free actors, and even when He does not force an outcome, it may be plain to Him as a simple result of His knowledge of both  $a$  and  $b$  and his complete control over  $b$ . Since we would not expect forcing or prior-knowledge-without-forcing for each of man's actions, our solution remains partial, but it does suggest an avenue of thought and research on this millennia-old problem.

**Joseph S Fulda, CSE, PhD**

**701 West 177th Street, #21, New York, NY 10033**

**E-mail: <fulda@acm.org>, <jfulda@usa.net>.  
<<http://www.cdfc.org/eight.html>>**