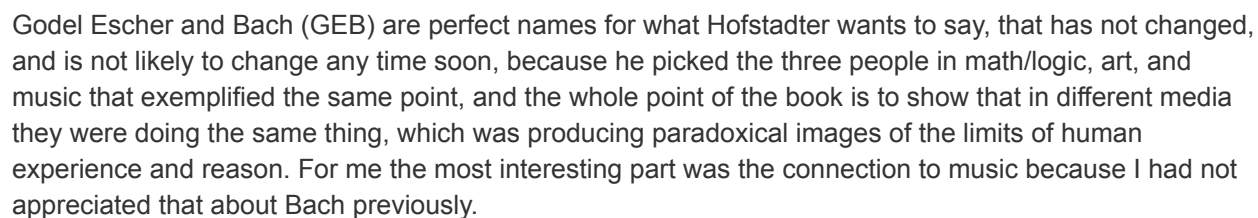
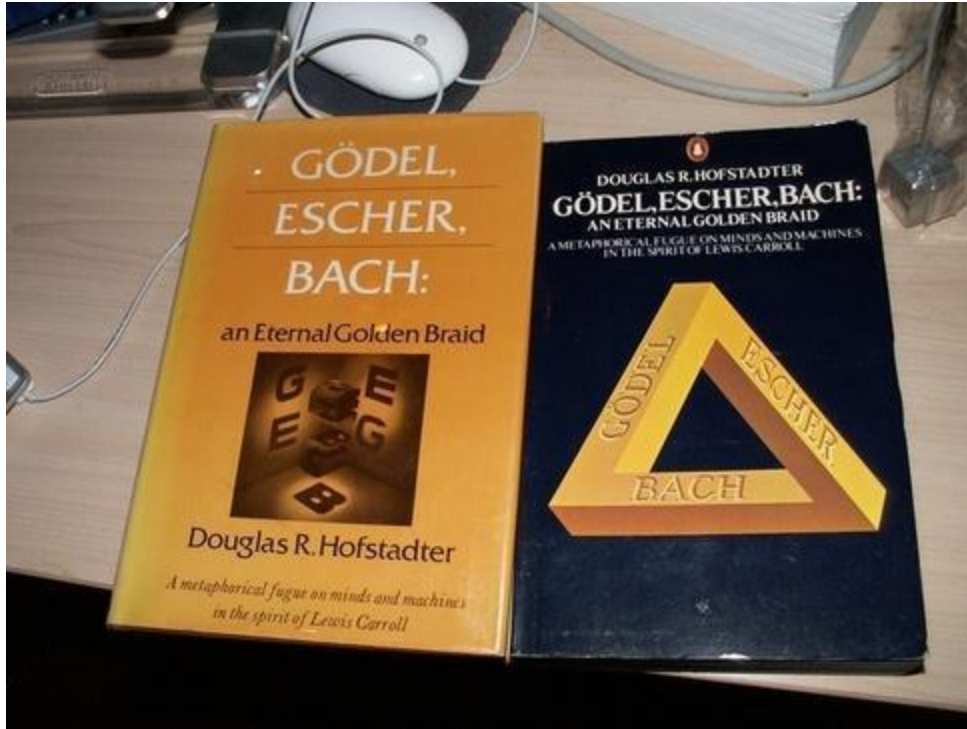


Kent Palmer <http://kdp.me> Copyright 2011





[http://en.wikipedia.org/wiki/G%C3%B6del,\\_Escher,\\_Bach](http://en.wikipedia.org/wiki/G%C3%B6del,_Escher,_Bach)

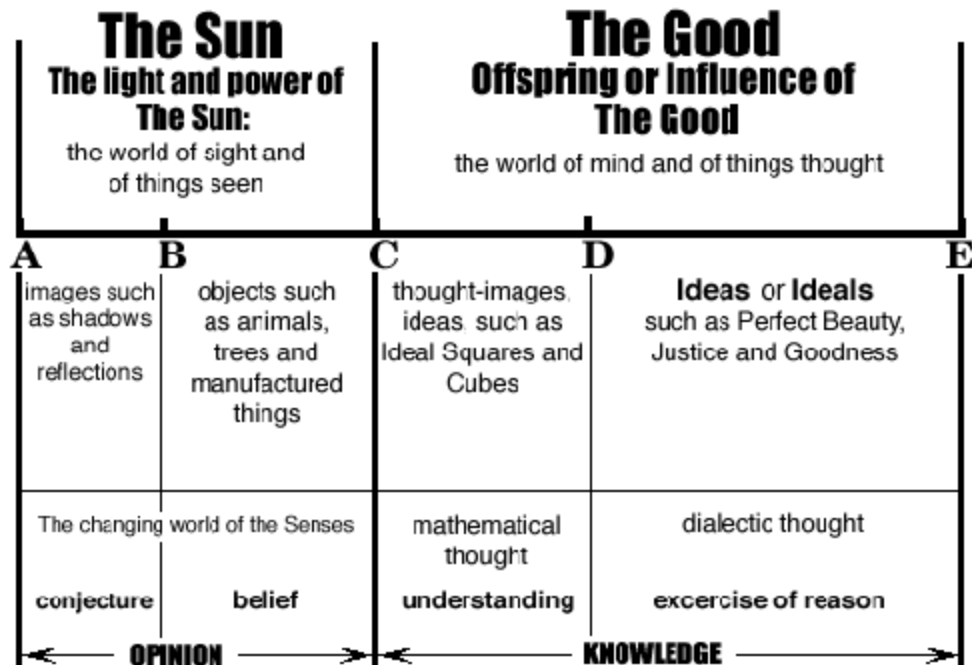
Self-Reference: <http://en.wikipedia.org/wiki/Self-reference>

Godel: [http://en.wikipedia.org/wiki/Kurt\\_G%C3%B6del](http://en.wikipedia.org/wiki/Kurt_G%C3%B6del)

Escher: [http://en.wikipedia.org/wiki/M.\\_C.\\_Escher](http://en.wikipedia.org/wiki/M._C._Escher)

Bach: <http://en.wikipedia.org/wiki/Bach>

It was the playfulness of the book, and the way he blends many examples together to show that these structures are intrinsic to our ways of cognition. But this is a perfect example of what I call the limit of the divided line of Plato which is the paradoxical limit.

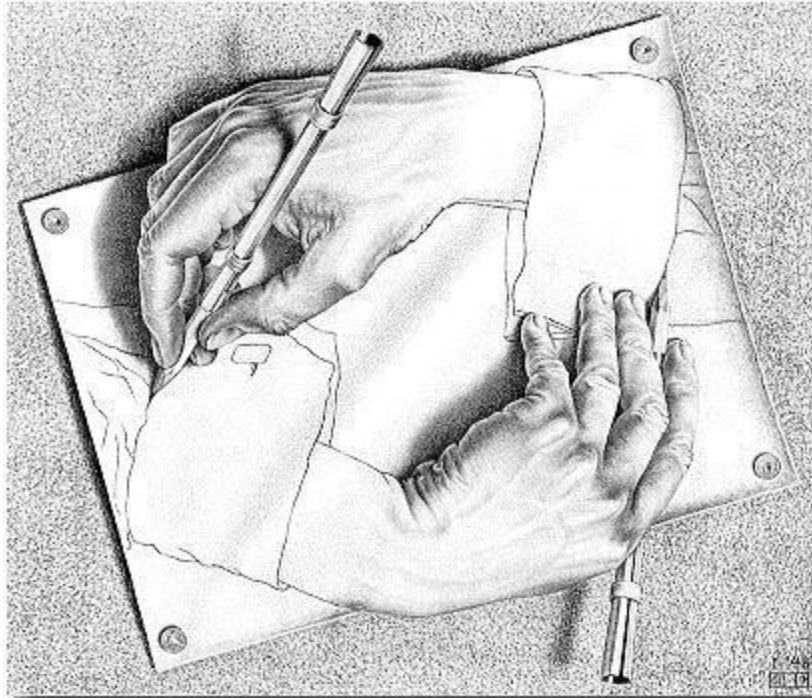


<http://www.fairspeech.com/ctl/dlpics.html>

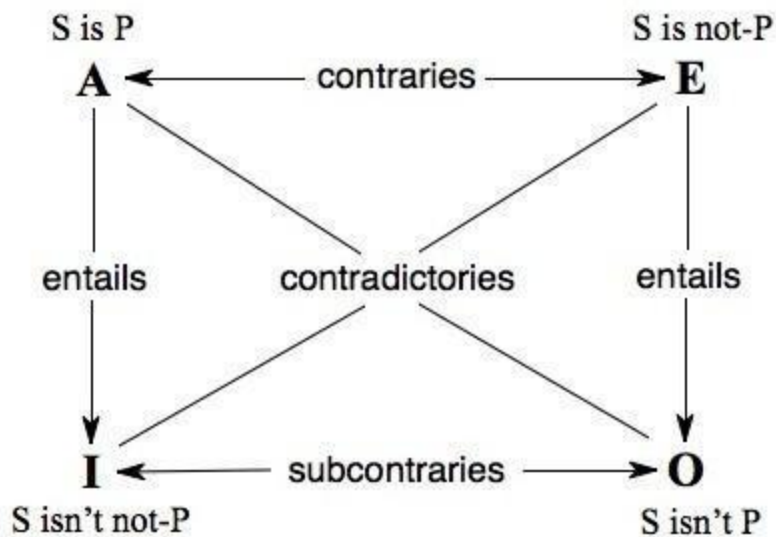
The divided line is the center of the Western worldview in the metaphysical era.

The line **A** is the the limit on the side of DOXA (opinion, appearance). That limit is Contradiction, Paradox and even Absurdity. GEB is about the fact that this limit has structure, it is not just a blank wall but has depth given by the problems of self-reference in logic, and these very problems can be seen in the art work of Escher and the fugues of Bach. The other end of the Divided Line where the **RATIO** ends is the Supra-rational which we normally do not talk about in our culture but we can see operative in Zen Koans for instance.

The key image of hands drawing each other from Escher describes the essence of this limit of paradox via mutual self reference very well. The paper is two dimensional. But the illusion of each hand becoming three dimensional, suggests each is drawing the other. thus it is a kind of Chicken and Egg paradox because one hand could not draw the other unless it had already been drawn. If there is not enough hand to draw then the other hand cannot be drawn, and so we find a moment in flight, so to speak, as in Zeno's Paradoxes which can have no reasonable origin. Also this is the right hand drawing the left hand and vice versa: Dexterous and Sinister. The right hand is drawing right and the left hand is drawing left. The left hand looks more awkward which we would expect. But this should not be a problem in drawing because there is no right handed bias. However, if a right handed drawer were to draw with his left hand he would be awkward. So we can expect that these are in fact the hands of Escher himself. If this is the case then the two hands are those of the creator of the work, and thus he is drawing a part of himself, and this is self-reference giving rise to mutual reference that prevents an origin.



It is quite clear when we look at Escher's two hands drawing each other that there are two different elements in this paradox of mutual self-reference. In effect a paradox is two contradictions mixed, and an absurdity is two paradoxes mixed. We see this in N. Hellerstein's Diamond and Delta logics where there are two paradoxes not one, and when we combine these into a mixture then we get the absurdity which is a singularity.



You notice that in the logical square there are two contradictories that are structurally held apart by the

contraries and the entailment. But if these mix then there is paradox. But Paradox as Hellerstein shows also come in pairs, if we accept his interpretation of the Laws of Form's logic from G. Spencer-Brown. and similarly if we mix the paradoxes we get absurdity. This mixture can occur through self-reference as Godel's Diagonalization shows.

Contradiction: <http://plato.stanford.edu/entries/contradiction/>



And this mixture can occur by recursion ...



... or mirroring as in Citizen Kane.



Or a spiral in time . . .



<http://www.paranormalpeopleonline.com/paradox-the-puzzle-box-of-the-universe/>

There is a difference between reflexivity and reflectivity. Reflexivity involves an action, where as reflectivity merely involves the manipulation of light that may not involve an action, as in the scene above. This is like the difference between illusion and delusion. Illusion does not require action, but if you act on illusions then you become deluded.

An example of reflexive theory is the works of B. Sandywell.

# **The Beginnings of European Theorizing: Reflexivity in the Archaic Age**

Logological Investigations Volume 2

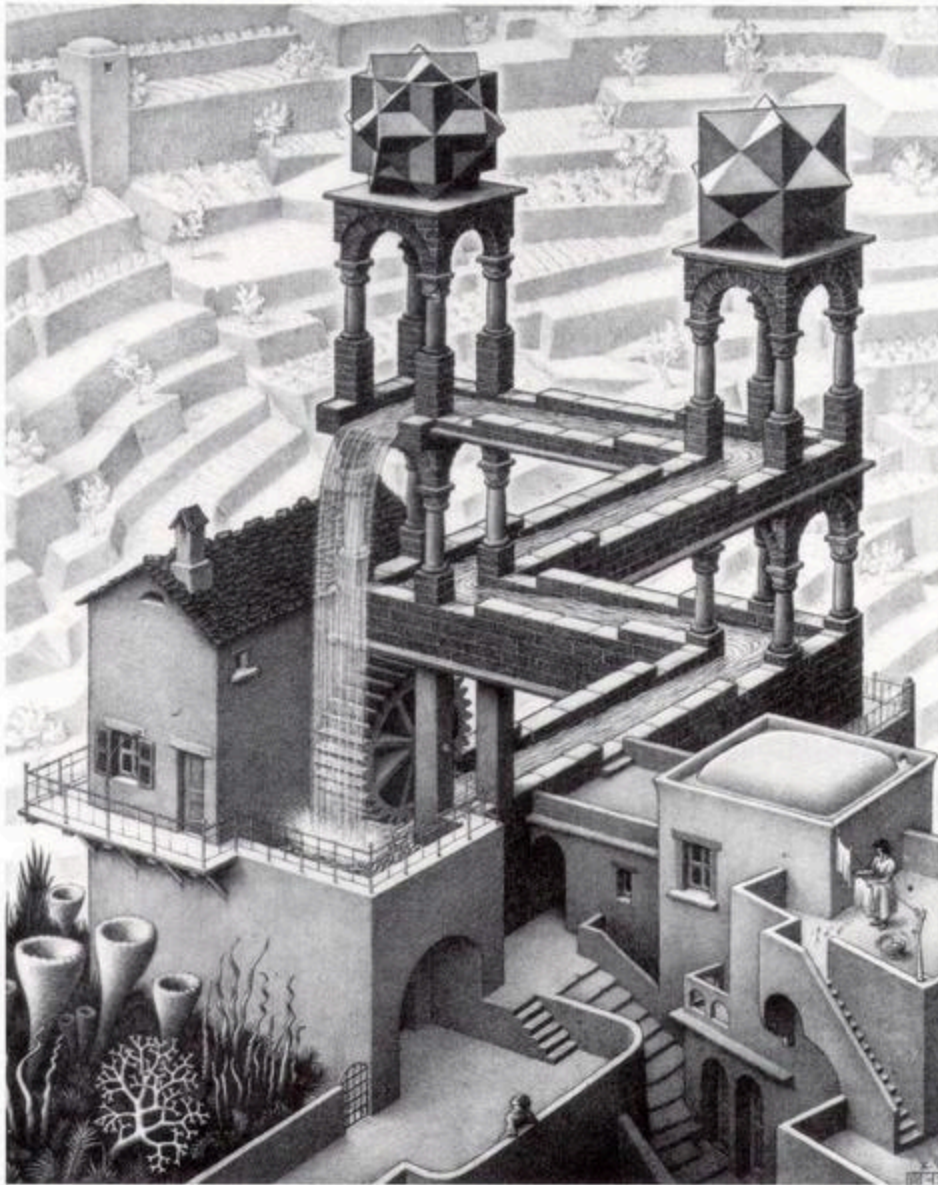
Barry Sandywell



For other examples of Reflexive Theories see <http://archonic.net/rst.htm>

Paradox: <http://en.wikipedia.org/wiki/Paradox>

List of . . . [http://en.wikipedia.org/wiki/List\\_of\\_paradoxes](http://en.wikipedia.org/wiki/List_of_paradoxes)



<http://www.weirdwarp.com/2009/08/paradox-or-not/>

Absurdity: <http://en.wikipedia.org/wiki/Absurdity>



<http://www.jackshainman.com/exhibition110.html>

<http://www.jondo.com/blog/satire-through-theatrical-absurdity>

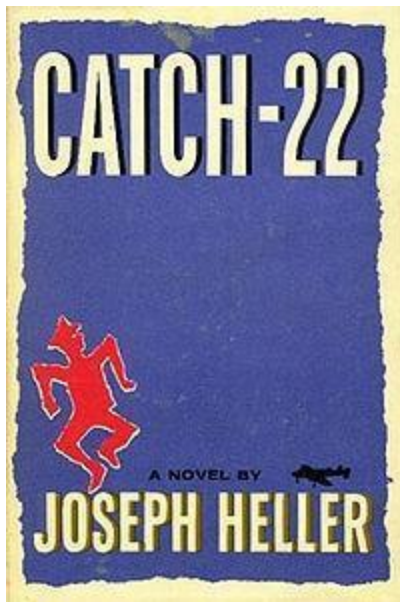
<http://www.twinpalms.com/?p=backlist&bookID=82>

<http://www.parkeharrison.com/slides-architechsbrother/index.html>

[http://en.wikipedia.org/wiki/Robert\\_ParkeHarrison](http://en.wikipedia.org/wiki/Robert_ParkeHarrison)

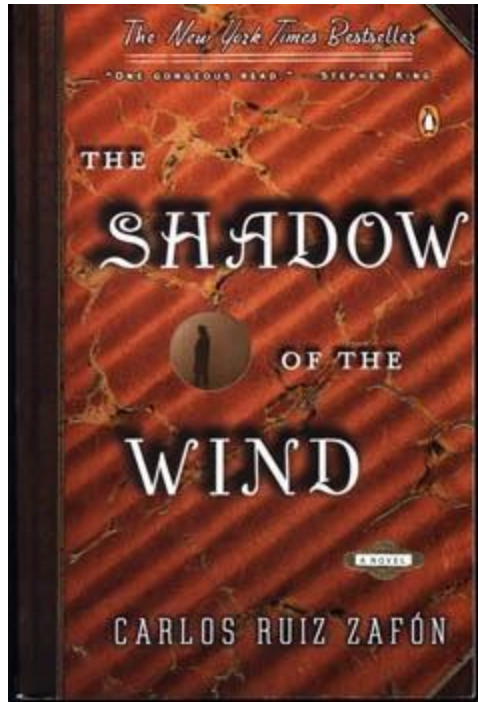


Of course the real master of this Genre is Joseph Heller.



Catch22: <http://en.wikipedia.org/wiki/Catch-22>

See other references on self-reference. Each of their covers indicate the book itself which is about self-reference. And each book has a title printed on it that indicates what book it is. Thus the title on a book is a self-reference, and it only becomes an other reference in a citation, or catalogue, in some media outside the book itself. Many novels include their own titles within themselves as part of the text not just the title of the book. An example of this is the *The Shadow of the Wind* by Carlos Ruiz Zafón,

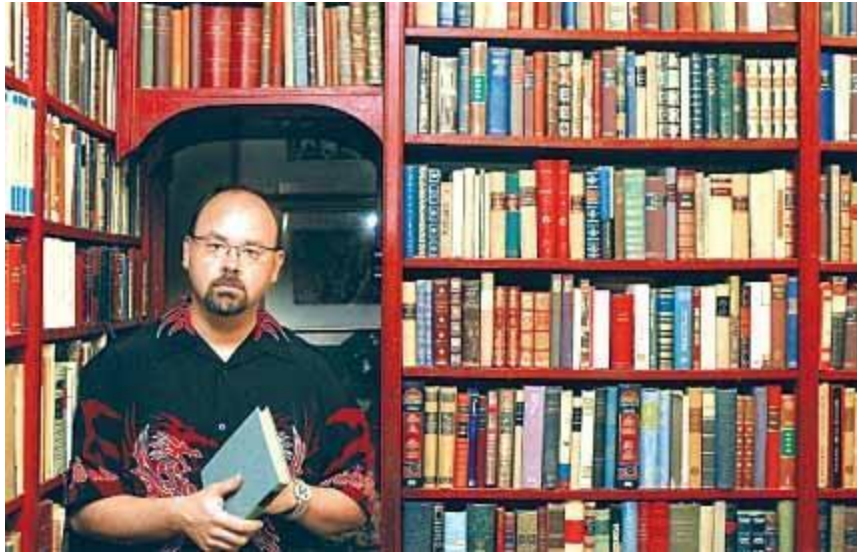


[http://en.wikipedia.org/wiki/The\\_Shadow\\_of\\_the\\_Wind](http://en.wikipedia.org/wiki/The_Shadow_of_the_Wind)

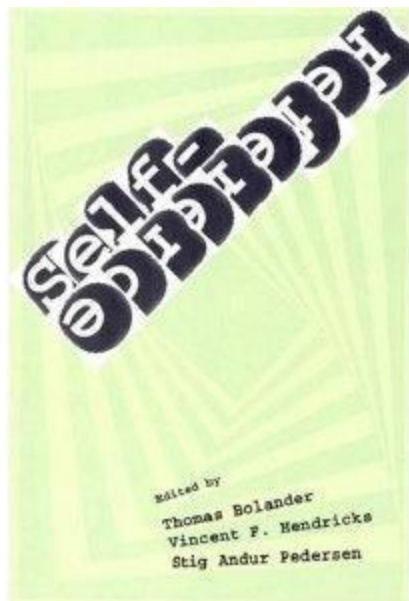
<http://books.google.com/books?id=z9Fe2htTgdoC>

*THE SHADOW OF THE WIND*  
JULIÁN CARAX

I had never heard of the title or the author, but I didn't care. The decision had been taken. I pulled the volume down with great care and leafed through the pages, letting them flutter. Once liberated from its prison on the shelf, the book shed a cloud of golden dust. Pleased with my choice, I tucked it under my arm and retraced my steps through the labyrinth with a smile on my lips. Perhaps the bewitching atmosphere of the place had got the better of me, but I felt sure that *The Shadow of the Wind* had been waiting for me there for years, probably since before I was born.



===== Other works on Self-Reference =====

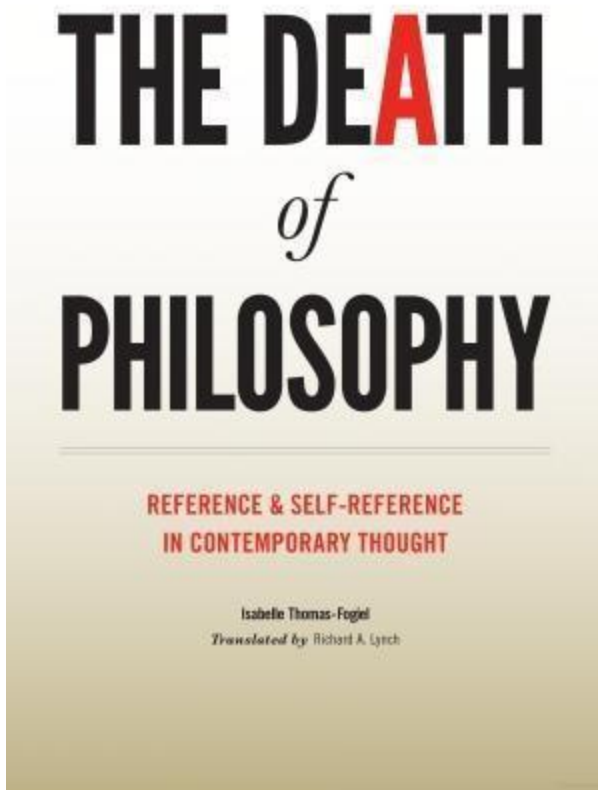


Self-reference

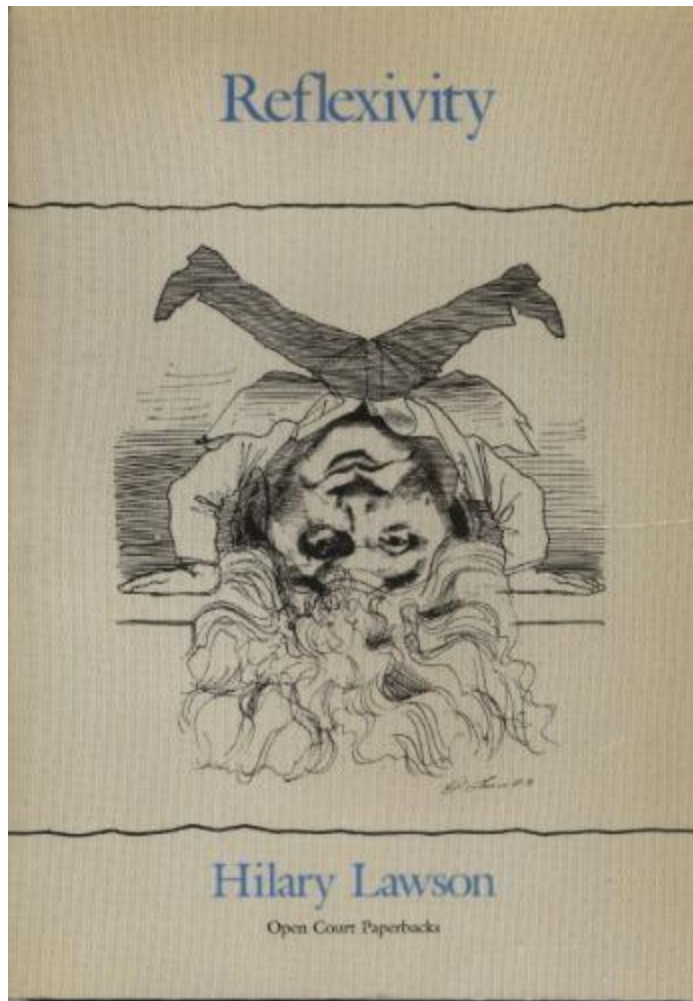
Thomas Bolander, Vincent F. Hendricks, Stig Andur  
[Pedersen](http://books.google.com/books?id=-QYQAQAAIAAJ)<http://books.google.com/books?id=-QYQAQAAIAAJ>



Self-reference: reflections on reflexivity Steven J. Bartlett, Peter Suber  
<http://books.google.com/books?id=6oAifzaZugEC&dq>



The Death of Philosophy: Reference and Self-Reference in Contemporary Thought Isabelle Thomas-Fogiel  
<http://books.google.com/books?id=60hStCteKLAC>



Reflexivity: the post-modern predicament Hilary Lawson  
Raymond M. Smullyan



Diagonalization and self-reference

Raymond M. Smullyan

<http://books.google.com/books?id=uH53QgAACAAJ>

[https://docs.google.com/document/d/1p17159\\_M5hQdrhSCGV-94yz2ppURL43Vat5lCheGsGo/edit](https://docs.google.com/document/d/1p17159_M5hQdrhSCGV-94yz2ppURL43Vat5lCheGsGo/edit)

<http://www.quora.com/If-Godel-Escher-Bach-could-be-updated-to-explain-modern-ideas-of-creativity-what-names-should-be-substituted-and-why>

<http://bit.ly/yHU1JB>