

Why Opacity Matters

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## Definition of opacity

Quine in [Word and Object](#) gives a criterion of *purely referential position* namely that it must be subject to the *substitutivity of identity*.<sup>1</sup> Other positions are *opaque*.

See <http://dennisdarland.com/philosophy/naming.html> (I define 'belief')

And [http://dennisdarland.com/philosophy/identity\\_dd.html](http://dennisdarland.com/philosophy/identity_dd.html)

## Why does opacity matter?

Quine does not permit *quantification* into *opaque* contexts. And *quantifying* (being the value of a variable) is Quine's criterion for *being* – ontological status. So the ontological status of mental objects depends on opacity.

## Intensional contexts

There are traditionally both *extensional* and *intensional* contexts in propositions. Extensional contexts are *truth functional*. E.g. "p & q" depends truth functionally on "p" and "q". It is extensional. But S believes "p" does not depend truth functionally on "p". S may believe either p or ~p independently of whether p or ~p.

## Applying my definition of belief to intensions

Review my definition at:

<http://dennisdarland.com/philosophy/naming.html>

## So back to applying the definition of belief to intension:

S believes “p” at time t does not involve “p”.

E.g. when  $p = R(a,b,c)$  it means

(  
belief\_r(S,t,w,x,y,z)

And

Symbol\_1r(S,t,w,R)

And

Symbol\_0r(S,t,x,a)

And

Symbol\_0r(St,y,b)

And

Symbol\_0r(S,t,z,c)

}

Which does not involve  $R(a,b,c)$

But, as intensional functions of functions are defined in [Principia Mathematica](#) (pp. 72,73), belief is still an intensional function of the function R.

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