

# Upholding Hume's Law by overturning a Prior conviction

Campbell Brown

University of Edinburgh

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# Hume's Law

You can't derive an 'ought' from an 'is'.

Or, in the terminology of A. N. Prior: no *ethical* conclusion follows validly from *non-ethical* premises.

Non-ethical, 'is'	Ethical, 'ought'
Most people find bestiality disgusting.	Bestiality <i>ought</i> to be illegal.
Giving to charity helps relieve suffering.	It's <i>good</i> to give to charity.
Not everyone likes to use Microsoft products.	Sending Word documents as email attachments is <i>wrong</i> .



# Prior's attempted refutation

## Argument A

Tea-drinking is common in England.

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*Either tea-drinking is common in England or all New Zealanders ought to be shot.*

## Argument B

Tea-drinking is not common in England.

*Either tea-drinking is common in England or all New Zealanders ought to be shot.*

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All New Zealanders ought to be shot.

If the 'pivotal' sentence (in italics) is ethical, then A is a counter-instance to Hume's Law. If it is non-ethical, then B is a counter-instance.





# A solution

A sentence may be *partly* ethical (or non-ethical) without being *wholly* ethical (or non-ethical).

Let  $\mathcal{E}$  and  $\mathcal{N}$  be respectively the *partly ethical* and *partly non-ethical* sentences.

Then the *wholly ethical* sentences are  $\mathcal{E} \cap \overline{\mathcal{N}}$ , and the *wholly non-ethical* are  $\mathcal{N} \cap \overline{\mathcal{E}}$ .

The pivotal sentence is both partly ethical and partly non-ethical (hence neither wholly ethical nor wholly non-ethical).



## Two readings of Hume's Law

**Strong reading.** No *partly* ethical conclusion follows validly from *partly* non-ethical premises.

**Weak reading.** No *wholly* ethical conclusion follows validly from *wholly* non-ethical premises.

Prior refutes the strong reading (*both* arguments are counter-instances), but that reading is crazy anyway. Consider:

Either tea-drinking is common in England or all New Zealanders ought to be shot.

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Either tea-drinking is common in England or all New Zealanders ought to be shot.



# Prior's failed refutation

## Argument A

Tea-drinking is common in England.

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Either tea-drinking is common in England or all New Zealanders ought to be shot.

The weak reading is not refuted, because the conclusion of A isn't wholly ethical and the premises of B aren't wholly non-ethical.

## Argument B

Tea-drinking is not common in England.

Either tea-drinking is common in England or all New Zealanders ought to be shot.

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All New Zealanders ought to be shot.



## More precisely

Let  $\mathcal{L}$  be a propositional language composed out of atomic sentences  $p_1, p_2, \dots$ , and logical connectives  $\neg, \vee, \wedge, \dots$ , in the usual way.

An *interpretation* of  $\mathcal{L}$  is a function  $v$  that assigns to each sentence  $\phi$  a 'truth value', i.e. either 1 for true or 0 for false, satisfying the usual conditions for non-atomic sentences.

$\phi$  *implies*  $\psi$  iff there is no interpretation  $v$  such that  $v(\phi) = 1$  and  $v(\psi) = 0$ .

An argument, with premises  $\phi_1, \phi_2, \dots, \phi_n$  and conclusion  $\psi$ , is *valid* iff  $\phi_1 \wedge \phi_2 \wedge \dots \wedge \phi_n$  implies  $\psi$ .



# Supervenience

$\phi$  *supervenes* on  $\Psi = \{\psi_1, \psi_2, \dots, \psi_n\}$  iff there are no interpretations  $v$  and  $v^*$  such that  $v|_{\Psi} = v^*|_{\Psi}$  and  $v(\phi) \neq v^*(\phi)$ . (Informally:  $\phi$  supervenes on  $\Psi$  iff the truth-value of  $\phi$  cannot be changed without changing the truth-value of at least one member of  $\Psi$ .)

Some examples:

- ▶  $p_1 \vee p_2$  supervenes on  $\{p_1, p_2\}$  and on  $\{p_1, p_2, p_3\}$ , but not on  $\{p_2, p_3\}$
- ▶  $\phi$  supervenes on  $\{\phi\}$
- ▶  $p_1 \wedge \neg p_1$  supervenes on  $\{ \}$



# Bases

The *base* of  $\phi$ , denoted by ' $\beta(\phi)$ ', is the smallest set of atomic sentences on which  $\phi$  supervenes.

Or equivalently:  $p_i \in \beta(\phi)$  iff there is some  $v$  and  $v^*$  such that (a)  $v(p_j) = v^*(p_j)$  for  $j \neq i$ , and (b)  $v(\phi) \neq v^*(\phi)$ .

Some examples:

- ▶  $\beta(p_1) = \beta(\neg p_1) = \{p_1\}$
- ▶  $\beta(p_1 \vee p_2) = \beta(p_1 \wedge p_2) = \{p_1, p_2\}$
- ▶  $\beta(p_1 \vee \neg p_1) = \beta(p_1 \wedge \neg p_1) = \{ \}$



# Ethical and non-ethical

Let  $\mathcal{E}$  and  $\mathcal{N}$  be respectively the partly ethical and partly non-ethical sentences in  $\mathcal{L}$ . We assume these satisfy the following conditions:

- ▶  $p_i \in \mathcal{E}$  iff  $p_i \notin \mathcal{N}$
- ▶  $\phi \in \mathcal{E}$  iff  $\beta(\phi) \cap \mathcal{E} \neq \{\}$
- ▶  $\phi \in \mathcal{N}$  iff  $\beta(\phi) \cap \mathcal{N} \neq \{\}$

All atomic sentences are either wholly ethical or wholly non-ethical.

A partly ethical sentence is one whose base includes an ethical sentence (same thing *mutatis mutandis* for partly non-ethical sentences).



# Proving Hume's Law

**Theorem (Hume's Law).** Suppose  $\phi$  is wholly non-ethical, and  $\psi$  wholly ethical. Then  $\phi$  does not imply  $\psi$ .

If  $\phi$  non-trivially implies  $\psi$  (i.e.  $\phi$  is not contradiction nor  $\psi$  a tautology), then their bases must have at least one sentence in common.

If this sentence is ethical,  $\phi$  is not wholly non-ethical; if non-ethical, then  $\psi$  is not wholly ethical.



# But is this really Hume's Law?

I don't mean this to be a question about Hume. (I use 'Hume's Law' as a proper name, not a description.)

Hume's Law is sometimes thought to cause trouble for 'ethical naturalism', the view (roughly) that ethical sentences can be analysed in natural terms.

However, although naturalists believe that wholly ethical conclusions may *in some sense* be implied by wholly natural (hence, wholly non-ethical) premises, this sense is not narrow logical implication.

So Hume's Law, on my interpretation, seems not to apply here.



