Stoic Philosophy + Quasi-Algebraic Logic

2014-04-08 BY GENE

On the bus too work, I am reading this classic, but not especially politically correct, Roman Stoic philosopher, Epictetus. Some of his fragments are obvious, but some are inscrutable.

Sometimes, I read this little book I found at the library called, "Many-valued Logics."

So naturally, I decided to translate one of his less cryptic statements, from the *Encheiridion* (fragment II), into "logic equations" to try to simplify things.

So I sketched out some variables and functions that I may need to use:

Variables: Good/Bad, Happy/Unhappy, Fortunate/Unfortunate, Natural/Unnatural, In your power/Not in your power …

Functions: desire(), hope(), obtain()/avoid(), fail() and to be involved() (i.e. your current state).

In the end, he says this: o(G) ∪ ¬ o(B). Obvious! But he starts out with the premise that desire is a function of good and bad both. He says that desire is the hope that you will obtain the good and avoid the bad, and that this implies that failure to achieve your desire is unfortunate and will make you feel unhappy.

For my purposes, the symbols: ¬ means "not", ∪ means "and", -> is "implication", => means "transfer to" and fail() is like ¬ but only …not. *;-)* d=desire, h=hope, o=obtain (and ¬obtain="avoid"), i=involve (i.e. "current state of affairs"), f=fail, G=good, B=bad, F=fortunate, H=happy, N=natural (¬N="contrary to nature"), P="within your power."

Okay, literally translating the sentences, that becomes:

1. d(G, B) = h(o(G) ∪ ¬o(B))

As explained above.

2. ¬F = f(d(G, B))

"It is unfortunate to fail in your desire."

3. ¬H = o(B)

"It is unhappy to obtain that which is bad."

4. ¬o(¬N ∪ P) -> ¬i(B)

"If you avoid things contrary to nature, that are in your power, then you will not be involved with bad things.

5. ¬o(N ∪ ¬P) -> ¬H

"If you (attempt to) avoid natural things that are not in your power, then you will not be happy.

6. ¬¬o(¬P) => ¬o(N ∪ P)

“Transfer not avoiding that which is not in your power to avoiding natural things that are in your power.”

7. d(¬P) -> ¬F

“If you desire that which is not in your power then it (the future) will be unfortunate.”

8. d(P) -> F

“If you desire that which is in your power then it will be fortunate.”

9. o(G) ∪ ¬ o(B)

“Obtain the good and avoid the bad.”

Again, I chose a fragment to analyze **because** it was easy to understand – not because it was the most profound.

Next up: Use some algebra muscle to infer unstated, logical equalities among the variables and functions. Then parse another fragment into quasi-equations!

FILED UNDER: MATHEMATICS
TAGGED WITH: ALGEBRAIC, EPICTETUS, LOGIC, PHILOSOPHY, STOIC

Epistemologist-at-large

^ Top