Comments on Problem Set 7

- 1. State the conditions under which an eternalist indexicalist (a.k.a. "B-theorist") would take an utterance of each of the following sentences at a time t to be true (the first two sentences are in English, the second two are in a hybrid of English and the notation of tense logic).
 - (*i*) There will always be living beings.
 - *(ii) There have been exactly two world wars.*
 - (*iii*) WAS(For some x, x is a frog and WILL(x is a prince))
 - (iv) It is not the case that WAS (it is not the case that WILL(George W. Bush is president))

The answers:

- (i) For every time , after t, there is a living being at .
- (ii) There are exactly two world wars during the period from the beginning of time to t.
- (iii) For some time , before t, there is a frog that at some time after is a prince.
- (iv) It is not the case that there is a time before t such that it is not the case that there is a time after at which George W. Bush is president. or, alternatively,

For every time before t, it is the case that there is a time after at which George Bush is president.

In answering this question, many people included in their truth conditions for the sentences tensed terms like "was", "will", "have been", etc. The eternalist indexicalist's truth conditions of these sentences are purged of such terms for he thinks that there are no tensed facts (to the eternalist indexicalist terms like "was", "will", "have been", etc. are indexicals). To correctly answer the question one had to put the truth conditions in purely timeless terms.

2. 'According to eternalism, the future is already there, and the past is still just as real as it ever was. Nothing ever genuinely comes into existence, goes out of existence, or changes in any way: the universe is a static, unchanging, four-dimensional block.' Explain why (most) eternalists would reject this characterization of their view. Are they right, or is there some sense in which the characterization remains appropriate?

In answering this question you should have addressed all the charges that the presentist levels at the eternalist. The three charges are (1) that the future is already there and the past is still as real as it ever was, (2) nothing ever comes into or goes out of existence, and (3) nothing changes. Many people only addressed the charge that nothing ever changes. (The eternalist's response to charges (2) and (3) are so similar that it would be okay only to address one of them, but (1) should be addressed as well.)

I take it that the eternalist would respond to the characterization of his view as follows. On the eternalist view it is not accurate to say that "the future is already there" or that "the past is still as real as it ever was" because to say these things is to imply that future and past objects exist *now* (they imply this on account of the use of "already" and "still" respectively). But it is false, according to eternalism, that future and past objects exist now. Though eternalism is committed to the existence of future and past objects, it is not committed to their existing now. Similarly, though it is true that the universe (the totality of what exists) is a static and unchanging 4d block, it does not follow, as is claimed by the characterization, that nothing ever changes or comes into or goes out of existence. According to the eternalist, something comes into existence just in case that thing does not exist before some time t and does exist either at or at some time after t. Similarly, according to the eternalist, a thing changes just in case it is an F before some time t and is not an F either at or at some time after t.

In explaining why the eternalist would reject this characterization of his view, many people discussed free will. Though some people have thought that free will is inconsistent with the truth of eternalism, the characterization in the quote does not mention free will and thus discussions of why free will and eternalism are consistent are not relevant to the eternalist's reasons for rejecting the characterization.

3. Assess the following argument against presentism (c.f. Prior, 'Changes in Events and Changes in Things', pp. 11-14): Queen Anne does not exist now. Therefore, at least one thing does not exist now.

This is an argument against presentism because the presentist is committed to the claim that if something exists, then it exists now, and the argument's conclusion is that there is something that exists but does not exist now. In answering this question many people did not make this clear, and it seemed that many people did not take the argument to have this form.

The presentist will reject this argument. She will argue that the first premise is equivalent to the following:

WAS(Queen Anne exists) and there is nothing that is a Queen of England and named Anne, etc.

As this does not entail that there is anything at all, it certainly does not entail that there is at least one thing that does not exist now. Thus, the original premise does not entail that at least one thing does not exist now, and so the argument is invalid.

Many people invoked the general/individual fact distinction and said that the argument fails because the first premise is a general fact. Many people did not explain what the difference between general and individual facts is and why the first premise's being a general fact makes the argument fail.

4. Choose any one of the five "Hybrid" views considered by Sider, pp. 45-52. Explain and evaluate the view in question, making reference when appropriate to Sider's arguments.

As people discussed different Hybrid theories I will not write general comments for each of them; see your individual papers for particular comments. One common confusion, however: Here-nowism, i.e., Hybrid 1, is the view that there exists only one spacetime point, that one single spacetime point comprises the universe; it is not the view that a single spacetime point *and its past light cone* comprises the universe (that is Hybrid 3).