#### 24.09 Minds and Machines

#### problem sets 1-10 answers

Problem Set 1. Assigned 2/17. Due in recitation 2/24. Answer "yes" or "no" unless otherwise indicated.

1. Does Searle believe a machine could think?

Searle thinks that we are machines, in some sense, and also that we can think. See "Minds, Brains and Programs", where Searle says: ""Could a machine think?" The answer is, obviously, yes. We are precisely such machines.""

2. Is the Chinese room argument intended to establish that implementing a computer program is not necessary in order to understand Chinese?

The Chinese room argument is intended to be against a sufficiency claim: that implementing a program is **enough** to give an understanding of Chinese. It is completely consistent with the argument that implementing a computer program could be necessary for understanding Chinese (that all Chinese understanding involves implementation).

3. Does the conclusion of the Chinese room argument imply that <u>Deep Blue</u> cannot think?

If Deep Blue is a program, then Deep Blue cannot think, because abstract objects like programs cannot think. Since (we may suppose) it is a necessary truth that a program or other abstract object lacks the ability to think, the conclusion that a program cannot think is trivially implied by (entailed by) anything, according to the definition of validity given in class. However, Deep Blue is a supercomputer, and thus not a program. The Chinese room argument is intended to establish that if a machine thinks, it is not simply in virtue of running some program. This is consistent with Deep Blue having the ability to think in virtue of something else. Searle (presumably) believes that Deep Blue cannot think, on the grounds that Deep Blue does not have the "causal powers" of the brain. But the Chinese room argument does not establish that Deep Blue cannot think—this is just a further view of Searle's.

4. What about COG?

Again, COG is a **robot**, not merely a program, and therefore the Chinese room argument does not imply COG could not think.

5. "According to Descartes, he doesn't know whether tables and chairs exist, because he might be the victim of a supremely powerful and malicious deceiver." True or false?

False. See, e.g., page 16 in the Chalmers collection, second full paragraph—"...It follows that corporeal things exist."

- 6. According to Descartes, in what part of the body does the soul directly exercise its functions?
- (a) the heart
- (b) the lateral geniculate nucleus
- (c) the pineal gland
- (d) the pituitary gland
  - (c) see page 23 of the Chalmers collection
- 7. Is Smullyan's dualist (a) a property dualist or (b) a substance dualist?
  - (b) Smullyan's dualist believes in the existence of a soul it is this which he tries to rid himself of, thinking that this would end his conscious experience of his life..
- 8. According to Ryle, why did the Cartesian category mistake arise?
- (a) because it was assumed that the mind was a complicated physical machine, whose workings were not predictable by Galileo's mechanics
- (b) because theorists took the mind to be like the Average Taxpayer
- (c) because it reconciled the view that the mind is not physical with the view the mind is a sort of machine
- (d) because it was a consequence of Galileo's theory of spectral machines
  - (c)—see page 36 of the Chalmers collection—especially "Somewhat as the foreigner expected the University to be an extra edifice...so the repudiators of mechanism represented minds as extra centres of causal processes, rather like machines but also considerably different from them. Their theory was a paramechanical hypothesis."
- 9. Is it a category mistake to think that a cricket team has a wicket keeper?

No—see page 35 of the Chalmers collection, second full paragraph—"I see who does the bowling, the batting and the wicket-keeping; but I do not see whose role it is to exercise esprit de corps."

10. Is Ryle a Materialist?

No – see page 38 of the Chalmers collection – "It will also follow that both Idealism and Materialism are answers to an improper question"

Problem Set 2. Assigned 2/24. Due in recitation 3/3. Answer "yes" or "no" unless otherwise indicated.

1. Are there any propositions that are metaphysically possible but nomologically impossible?

Yes. For example, the proposition that I am accelerated beyond the speed of light.

2. Are there any propositions that are nomologically possible but metaphysically impossible?

No. See handout 5.

- 3. There are roughly 6000 human languages (English, Spanish, Tagalog, etc.). Approximately how many can be used to express the proposition that the sun rises?
- (a) 0
- (b) 1
- (c) 3000
- (d) 6000
  - d). Virtually every human languages has the resources to express the proposition that the sun rises.
- 4. Consider the dyadic property (relation) *is less than*, usually symbolized '<'. Which pairs x, y (in that order) are such that they jointly exemplify this relation?
- (a) the roman numeral 'XVI', the arabic numeral '200'
- (b) the number of planets, the cube root of 27
- (c) the number of planets, the number of natural numbers n such that n < 50
- (d) 16, 200

c), d)

5. Suppose that 'There are Fs', and 'There are Gs' are both meaningful statements. Does Ryle think that 'There are Fs and Gs' is also meaningful?

No. Ryle says that when two terms do not belong to the same category, it is 'absurd' to form conjunctions, see p. 37.

Bonus point: using the definitions in <u>handout 1</u>, does Ryle think that anything of the form:

There are Fs, there are Gs, so there are Fs and Gs is a valid argument?

An argument is valid if the premises entail the conclusion, in other words, any way one can make the premises true will also make the conclusion true. If Fs and Gs exist,

but are not of the same category, then Ryle says they may exist in 'different senses' (see p. 38 for examples). In such cases, the conclusion is neither true nor false.

6. Here is one behaviorist theory of belief:

S believes that p if S would answer "Yes" if S were asked "Is it true that p?"

(To get a specific consequence of this theory, replace 'S' by the name of any person and replace 'p' by any declarative sentence.)

(i) Does the theory have the consequence that a monolingual Spanish speaker does not believe that snow is white?

No. The theory says that if the Spanish speaker answers 'yes' when asked 'Is it true that snow is white?', then the Spanish speaker believes that snow is white. It says nothing about the Spanish speaker's belief if they do not answer 'yes' to the question.

(ii) Does the theory have the consequence that some ordinary cases of lying are impossible?

Yes. Suppose S believes that snow is black, but S lies when asked 'Is it true that snow is white?' and answer 'yes'. Then the theory says that S believes that snow is white. It is therefore impossible for S to lie about his/her belief by giving a misleading answer to a question about the proposition.

7. Is the 'is' in 'This table is an old packing case' the 'is' of identity, according to Place?

Yes. See p. 56: 'In the case of statements like "His table is an old packing case", there is no such relationship between the meanings of the of the expressions "his table" and "old packing case"; it merely so happens that in this case both expressions are applicable to and at the same time provide an adequate characterisation of the same object'.

8. "Some hallucinated rats are purple. When one hallucinates a purple rat, nothing physical in the brain is purple. Further, nothing physical in one's environment need be purple. Therefore some hallucinated rats are nonphysical things." Does Place think this is a sound argument?

No. Place argues that the experience of hallucinating a purple rat is identical to a particular brain process. He would disagree with the first premise, that some hallucinated rats are purple, because he does not think there are any hallucinated rats – there are only certain kinds of experiences, some of which are hallucinations. (See p. 59)

9. According to Smart, a statement such as "I am in pain" is not a genuine report of an irreducibly psychical fact but instead a sophisticated sort of wince. True or false?

False. This is a view of Wittgenstein's that Smart refers to on p. 60. It is the view that sensation reports are just expressions of behavioural dispositions. While Smart finds the view 'congenial', he says 'I feel that it will not quite do the trick' (p. 61).

10. Is Smart arguing that after-images are brain-processes?

No. Smart argues that the experience of an after-image is a brain process, but not the after-image itself.

Problem Set 3. Assigned 3/3. Due in recitation 3/10. Answer "yes" or "no" unless otherwise indicated.

(1) Does Smart think that the statement 'I have a green after-image' means the same as a statement of the form 'Such-and-such process is occurring in my brain'?

No. See Chalmers anthology, p. 62: "Let me first try to state more accurately the thesis that sensations are brain-processes. It is not the thesis that, for example, 'after-image' or 'ache' means the same as 'brain process of sort X'…"

(2) Does Place think that the word 'consciousness' might refer to a process in the brain?

Yes. See Chalmers anthology, p. 56: "What I do want to assert, however, is that the statement 'Consciousness is a process in the brain', although not necessarily true, is not necessarily false."

(3) Suppose that sensations are identical to type-S brain-processes, and that the "Fido"-Fido theory of meaning is true. Does it follow that 'sensation' and 'type-S brain-process' are synonymous?

If sensations are identical to type-S brain processes, then the term 'sensation' and the term 'type-S brain process' refer to the same thing. And the "Fido"-Fido theory of meaning is just the claim that the meaning of a term is what it refers to (e.g., the meaning of the term "Fido" is the dog, Fido). Since 'sensation' and 'type-S brain process' refer to the same thing, they have the same meaning, according to the "Fido"-Fido theory of meaning. Finally, synonymous terms are terms that have the same meaning. So, putting this all together: if sensations are identical to type-S brain processes, and if the "Fido"-Fido theory of meaning is true, then 'sensation' and 'type-S brain process' are synonymous.

(4) Does Smart think that experiments have shown epiphenomenalism to be false?

No. See Chalmers anthology, p. 67: "...there is no conceivable experiment which could decide between materialism and epiphenomenalism."

(5) Is 'The president of MIT = Susan Hockfield' contingent?

Yes. There are possible worlds in which the president of MIT is someone other than Susan Hockfield.

(6) Is 'The least prime greater than the number of planets = 11' necessary?

No. For example, there are possible worlds in which the number of planets is 2, and in such a world the least prime greater than the number of planets would = 3.

(7) Which of the following is rigid?:

#### (a) 'Susan Hockfield's husband'

Not rigid. In some possible worlds, the phrase 'Susan Hockfield's husband' refers to someone other than her actual husband (e.g., worlds in which she never met her actual husband and married someone else).

(b) 'The neuroscientist named 'Susan Hockfield"

Not rigid. In some possible worlds, the phrase 'The neuroscientist named "Susan Hockfield"' refers to someone other than Susan Hockfield, our beloved president of MIT (e.g., a world in which our beloved president never studied neuroscience, but in which someone else named "Susan Hockfield" did).

(c) 'The sum of the infinite series 1/n! (n=0,1,2,...)'

Rigid. This phrase refers to the same number in all possible worlds.

(d) 'The least prime greater than the number of planets'

Not rigid. In the actual world, this phrase refers to the number 11. But in some other possible worlds, this phrase refers to a different number (e.g., a world in which the number of planets is 2).

(e) 'Jessica Simpson's sister'

Not rigid. In the actual world, this phase refers to Ashlee Simpson. But in some other possible worlds, it refers to someone else (e.g., a world in which Ashlee does not exist, but in which another of Tina Simpson's eggs is fertilized by Joe Simpson's sperm and develops into a female Simpson distinct from Jessica and Ashlee).

(8) Is Kripke arguing against (a) only type-type identity theories, (b) only token-token identity theories, or (c) both?

Both. See Chalmers anthology, p. 333: "Suffice it to say that I suspect that the considerations given indicate that the theorist who wishes to identify various particular mental and physical events will have to face problems fairly similar to those of the type-type theorist…"

(9) Does Kripke think that 'Heat is the motion of molecules' expresses an a priori truth?

No. See Chalmers collection, p. 331, second full paragraph. Here Kripke categorizes the proposition expressed by 'heat is the motion of molecules' as a necessary a posteriori truth.

(10) Does Kripke think that 'Heat is the motion of molecules' expresses a contingent truth?

No. See Chalmers collection, p. 330: "...since 'heat' and 'molecular motion' are both rigid designators, the identification of the phenomena they name is necessary."

### Problem Set 4. Assigned 3/10. Due in recitation 3/17. Answer "yes" or "no" unless otherwise indicated.

(1) Let 'A' and 'B' be names (e.g. 'Jessica Simpson', 'Mercury', 'Igor Ivanovich Sikorsky'), or descriptions with the definite article (e.g. 'the inventor of the helicopter', 'the closest planet to the Sun', 'the soon-to-be-ex wife of Nick Lachey'). If 'A' and 'B' are rigid, then 'A = B' is noncontingent (necessarily true or necessarily false). Is the converse true? That is, if 'A = B' is noncontingent, are 'A' and 'B' rigid?

No. Suppose 'A' is 'the number of planets', and so is 'B'. `The number of planets = the number of planets' is not contingent, but neither 'A' nor 'B' are rigid.

(2) According to Armstrong, was Brentano a Materialist?

No; see pg. 84: "Brentano held that intentionality set the mind completely apart from matter."

(3) Does Armstrong think the mind-body problem can be solved without conceptual analysis?

A justification for a "yes" answer—Armstrong says that "There is no a priori reason for thinking that the special methods of philosophy [i.e. conceptual analysis] will be able to make a contribution to the mind-body problem" (p. 81). This does not yet tell us that he thinks that it can be solved without conceptual analysis. However, he also thinks that "the propositions the philosopher arrives at need not be of a special nature. They perhaps might have been arrived at by

the psychologist, the neuro-psychologist, the biochemist or others" (p. 81) – in other words, the sciences could come to the same conclusions we get from conceptual analysis. It's just that they get there a different way. It might be confusing that Armstrong also says that "neither is there an a priori reason for assuming that the philosopher's contribution is valueless" (p. 81) – but this should only be confusing if you think that for a method to be of value, it must be essential to solving the problem.

A justification for a "no" answer—see pp. 81-2. Armstrong seems to be saying that without "conceptual analysis" we won't be able to see how materialism is an "intelligible hypothesis".

(4) Does Armstrong think a Materialist should analyse the property of being red as "[that property] of a physical surface, whatever [it is], that characteristically produces *red sensations* in us"?

No. See pg. 86: "But this analysis ["those properties of a physical surface, whatever they are, that characteristically produce <u>red sensations</u> in us"] simply shifts the problem unhelpfully from the property of surface to property of sensation."

(5) According to Putnam, is the functional-state hypothesis incompatible with dualism?

*No. See pg. 76: "the functional-state hypothesis is <u>not</u> incompatible with dualism!"* 

(6) According to Putnam, is the main problem with the behavior disposition theory that there is no species-independent kind of pain behavior?

No. See pg. 78, where Putnam claims that the chief problem is that of providing a behavioral analysis of pain which doesn't appeal to the concept of pain itself.

(7) According to Lewis, is it necessary that pain = c-fiber firing?

No. See "Mad Pain and Martian Pain" (pg. 125): "If pain is identical to a certain neural state, the identity is contingent."

(8) Does Lewis think that enough physics lessons would tell him what it's like to taste Vegemite?

No. See "Mad Pain..." (pg. 131): Lewis thinks that knowing what it's like isn't a kind of factual knowledge, like facts of physics, but instead "abilities to recognize, abilities to imagine, abilities to predict one's behavior by means of imaginative experiences...Lessons cannot impart these abilities"

(9) Does Lewis think that someone who doesn't know what it's like to taste vegemite is lacking some information?

No. See "Mad Pain..." (pg.131-2) where Lewis compares the lack of phenomenal "information" to that of a pattern matching machine which lacks a template; "If it has a full description about a pattern but no template for it, it lacks an ability but it doesn't lack information....When it is shown the pattern it makes a template and gains abilities, but it gains no information. We might be rather like that."

- (10) Consider the following three claims:
- a. There are no nomological danglers.
- b. If functionalism is true, physicalism (in the sense of Block, p. 95) is false.
- c. Functionalism is true.

Could these three claims be true together? Or must at least one of them be false? In other words: are these claims jointly consistent or inconsistent?

Yes, they are consistent. Suppose b) is the case; Block's version of physicalism requires that any given mental state be necessarily identical to a brain state, and because functional states aren't necessarily identical to brain states (they could be multiply realized), physicalism is false if functionalism is true. This is therefore consistent with functionalism being true, so b) and c) are consistent. A nomological dangler is a non-physical property "dangling" from the web of causal relations between objects and properties by the threads of psychophysical laws. But there need be nothing actually existing which is non-physical, as the functional property is realized by a physical property.

# Problem Set 5. Assigned 3/24. Due in recitation 4/7. Answer "yes" or "no" unless otherwise indicated.

Does Putnam (in "The meaning of 'meaning'") accept that

- (1) it is (metaphysically) possible that water isn't H2O? No see p.589 "2. One might hold that water is H2O in all worlds (the stuff called "water" in W2 isn't water), but "water" doesn't have the same meaning in W1 and W2. If what was said before about the Twin Earth case was correct, then (2) is clearly the correct theory." Also p.590, "Once we have discovered that water (in the actual world) is H2O, nothing counts as a possible world in which water isn't H2O."
- (2) there is a possible world in which pencils are organisms? No. See p.591 "Have we shown that there is a possible world in which pencils are organisms? I think not. What we have shown is that there is a possible world in which certain organisms are the epistemic counterparts of pencils"
- (3) if two speakers are in exactly the same psychological state ("in the narrow sense"), then their words apply to the same things? *No. In the Twin Earth examples speakers in*

- different worlds are assumed to be in exactly the same psychological state, yet they refer to different things. See for example, the description of Oscar and Twin Oscar on p. 586.
- (4) cats, for all we know, might be robots controlled from Mars? No. Putnam isn't a skeptic about cats -- we know that they aren't robots (although there is a counterfactual situation in which we discover that the furry things we call 'cats' are in fact robots). No doubt there are actual people who are so ignorant about cats that they don't know they aren't robots. But we, collectively, know that they aren't.
- (5) frying pans could be made out of molybdenum? No. Putnam says he does not know whether one can make pots and pans out of molybdenum (p.586).
- (6) meanings are not in the head? Yes. See p. 587.
- (7) a molybdenum knife could cut the pie any way you like? No. Putnam doesn't say anything about this, so the default answer should be "no".
- (8) if word W1 in my language means the same as (is synonymous with) word W2 in my language, then I will know that W1 and W2 are synonymous? No. One can grasp the meaning of W1, and also grasp the meaning of W2, without realising that W1 and W2 are synonyms. Putnam gives an example on p. 583 of a speaker who doesn't realise that two words in his vocabulary have the same meaning, even though he grasps the meaning of both.
- (9) terms for furniture exhibit the "division of linguistic labor"? No. On p. 587 he says that simple items of furniture like "chair" do not (p.587).

Does Burge (in "Individualism and the Mental") accept that

- (10) 'Bertrand thinks that water is not fit to drink' is an intensional context? Yes. See page 599. Burge doesn't think that it follows from the fact that Bertrand thought water is not fit to drink that Bertrand thought H2O is not fit to drink. Therefore, it is an intensional context because you can't substitute in it two terms that refer to the same thing and preserve truth. Although he calls these "oblique occurrences", you should note that by this he means the same thing as "occurs in an intensional context". See handout 4.
- (11) there is a possible world in which overstuffed single-seat armchairs are sofas? *No. Burge says that someone might think that overstuffed single-seat armchairs are sofas, but he doesn't think this means it is possible that they are.*
- (12) a sentence provides the content of someone's belief? No. He thinks 'that'-clauses provide the content of belief. See p. 597.
- (13) only butchers can fully understand the word 'brisket'? No. Burge says only that some

people may have mistaken beliefs about what brisket is, not that everyone but butchers do.

- (14) the "arthritis" thought-experiment involves imagining that there is a planet far from Earth on which the word 'arthritis' applies not only to arthritis but to various other rheumatoid ailments? *No. The thought-experiment involves a counterfactual situation, not a distant planet.*
- (15) partial understanding of a word is a quite rare phenomenon? No. See page 604, "What I have called "partial understanding" is common or even normal in the case of a large number of expressions in our vocabularies."
- (16) the sort of argument in "The meaning of 'meaning'" applies to more words than a Burge-style argument? *No. In footnote 2, Burge says that the Putnam-derived arguments apply only to natural kind terms, and are narrower in scope than his own argument. He thinks his own arguments have very wide application see p. 601.*

# Problem Set 6. Assigned 4/7. Due in recitation 4/14. Answer "yes" or "no" unless otherwise indicated.

(1) Do Clark and Chalmers see a helpful analogy between a school of fish and the spoken and written words in a person's environment?

No; see p. 646. The analogy holds between the "swirls, eddies and vortices in [the fish's] watery environment" and language; not between a school of fish and language.

(2) According to Clark and Chalmers, does Otto (before he consults his notebook) have the occurrent belief that MoMA is on 53rd Street?

No. While Otto has a **standing** belief that MoMA is on  $53^{rd}$  st., he does not have an **occurrent** belief that MoMA is on  $53^{rd}$  st. (see p. 647)

Does Dennett (in "True Believers") hold that:

(3) If someone believes that Ryan Seacrest is a genius, that the person has this belief is a perfectly objective matter of fact?

Yes. See p. 557: "My thesis will be that while belief is a perfectly objective phenomenon..."

(4) Adopting the intentional stance involves pretending that a system has beliefs it does not in fact have?

No. First, it involves **treating** a system as a rational agent with beliefs and desires, not **pretending** that the system has beliefs. More importantly, "any system...whose behavior is well predicted by this strategy is in the fullest sense of the word a believer" (p. 557). Therefore, even if Dennett thought that something like pretense is involved, it doesn't involve pretending that the system has beliefs it does not in fact have.

(5) It is not possible, even in principle, to adopt anything but the intentional stance to predict successfully the behavior of human beings?

No. See p. 557: "The [physical] strategy is not always practically available, but that it will always work in principle is a dogma of the physical sciences..."

(6) Only artifacts like alarm clocks and thermostats are predictable using the design stance?

No. See p. 558: "Not just artifacts but also many biological objects (plants and animals, kidneys and hearts, stamens and pistils) behave in ways that can be predicted from the design stance."

(7) The intentional stance serves to predict the behavior of human beings completely?

No. It (and only it) serves to predict the **patterns** of behavior (see p. 562). And "it is...important to recognize the incompleteness and imperfections in the patterns...this leads inevitably to circumstances beyond the power of the intentional strategy to describe" (p. 563).

(8) Lecterns believe that they are located at the center of the civilized world?

No; see p. 561—Dennett says that the lecturn doesn't qualify as an intentional system because adopting the intentional stance towards it doesn't give us any predictive power we didn't already have.

(9) Beliefs are sentences stored in the head?

No; see p. 567—"That is a good enough reason, I think, for recommending as a matter of scientific tactics that we pursue the [language of thought] hypothesis in its various form as far as we can. But we will engage in that exploration more circumspectly, and fruitfully, if we bear in mind that its inevitable rightness is far from assured."

(10) Sometimes there is no fact of the matter whether a person has a particular belief?

Yes. See p. 563: "On the milder sort of realism I am advocating, there is no fact of the matter of exactly which beliefs and desires a person has in these degenerate cases."

# Problem Set 7. Assigned 4/14. Due in recitation 4/21. Answer "yes" or "no" unless otherwise indicated.

Does Dretske (in "A Recipe for Thought") hold that:

- (1) Fodor's disjunction problem is easier than the problem of misrepresentation? *No. Not easier, but the same see page 494: "I mention this problem here only to point out that this problem is merely another way of describing the problem of misrepresentation."*
- (2) the relevant functions in his recipe for thought are acquired phylogentically? No. See page 497: "When the underlying functions are phylogenic, the representations are not thought." Dretske thinks that the relevant functions are acquired through learning, which is an ontogenic process.
- (3) no additional theory is needed to account for the way beliefs rationalize behavior? Yes. See page 498: "This, it seems to me, vindicates, in one fell swoop, both the explanatory and rationalizing role of content."

Does McKinsey (in "Anti-Individualism...") hold that:

- (4) Davidson defends the traditional version of privileged access? No. McKinsey says that the traditional view is that we have privileged access not just to the fact that our thoughts occur, but also privileged access to our thoughts as satisfying certain descriptions or having certain contents. He claims that Davidson takes privileged access to apply only to an episode of thought 'independently of having privileged access to any particular descriptions that the episode might satisfy' (p. 635).
- (5) it is knowable only a posteriori that Paris Hilton exists only if Kathy Hilton exists? Yes. "For the fact, if it is a fact, that Descartes' existence is dependent upon the existence of these other physical objects [e.g., his parents] would not be something that is knowable a priori" (636).
- (6) externalism should be formulated in terms of metaphysical entailment? No; "...the thesis of anti-individualism should be stated in terms of conceptual implication rather than metaphysical entailment" (636).
- (7) externalism is true? No. He doesn't actually take a stand on this anywhere in the paper. He's arguing against the compatibility of externalism and privileged access, and there are places where he seems like he may be more willing to junk the former than the latter, but he doesn't come down on one side or another.

- (8) one cannot be mistaken about whether one is in pain? No. There is no reference to pain anywhere, and he does say that "the crucial idea is not that one's knowledge of [one's own mental] states is incorrigible..." (634).
- (9) if (2b) and (3) are true, (1) is false? Yes. "...it is easy to see that (1), (2b), and (3) form an inconsistent triad" (637).
- (10) Does Brueckner (speaking on behalf of the externalist or "anti-individualist"), claim that the proposition that Oscar is thinking that water is wet fails to conceptually imply that Oscar inhabits an environment containing H<sub>2</sub>O but not XYZ? *Yes. This is essentially (2b), and Brueckner argues that the externalist can deny it.*

# Problem Set 8. Assigned 4/21. Due in recitation 4/28. Answer "yes" or "no" unless otherwise indicated.

Does Tye (in "Visual Qualia...") hold that:

- (1) visual experiences have no intrinsic, non-intentional or non-representational features?
- No. Although Tye denies that there are any intrinsic, non-intentional or non-representational features of experiences which are \*also\* introspectible, and so could be Qualia, he claims that he is "not denying, of course, that the contents of visual experiences are introspectible. Nor am I denying that visual experiences have intrinsic, non-intentional or nonrepresentational features. If, as is widely believed, visual experiences are neural items, they will certainly have intrinsic physico-chemical properties." (p. 447)
- (2) the property blue is both a property of the ocean and a property of one's visual experience when one sees the ocean?
- No. The property blue is a property of the ocean, but not of one's visual experience (p. 448)
- (3) in order to have a visual experience of the determinate hue  $red_{19}$ , one must possess the concept  $red_{19}$ ?
- No. 'Consider ... my visual experience of a determinate color hue  $red_{19}$ , say. This does not demand possession of the concept  $red_{19}$ .' (p. 450)
- (4) It is possible to express in words the complete content of one's visual experiences?
- No. Tye thinks that visual experience has nonconceptual content and he says 'The nonconceptual content of visual experiences is content that cannot be captured in words' (p. 450)

(5) if Oscar and Twoscar are molecule-for molecule duplicates, they must be in the same phenomenal states?

No. 'Internal supervenience for the phenomenal is no more than a dogma. And sleeping dogmas should not be left undisturbed ...Phenomenology aint in the head' (p. 453)

(6) the Necker cube shows that there are Qualia?

No. Tye thinks the changes in appearance of the Necker cube can be accounted for representationally and it is not necessary to postulate Qualia to explain it.

Does Nagel hold that:

(7) it makes no sense to suppose that there are facts we could never know?

No. Nagel says that facts about what it is like to be a bat are facts we could never know.

(8) Argument D, as reinforced by Kripke, has true premises?

No. The second premise is 'I can clearly and distinctly conceive that my mind is not identical to my brain'. Nagel says it is possible to explain the apparent contingency of the mind-brain relation by invoking two different ways of imagining the same underlying thing. This is analogous to Kripke's explanation of the apparent contingency of the heat-molecular kinetic energy identity. So Nagel doesn't necessarily accept that one can really conceive of a situation in which the mind and brain are not identical – ie. he does not accept premise 2.

(9) Martians would not be able completely to master our physics?

No. Nagel thinks that physics is a domain of objective facts that can be observed and understood from many points of view and by individuals with differing perceptual systems. (p. 222)

(10) the identity theory is false?

No. 'It would be a mistake to conclude that physicalism must be false' (p. 223).

Problem Set 9. Assigned 4/28. Due in recitation 5/5. Answer "yes" or "no" unless otherwise indicated.

Does Chalmers (in "Consciousness and...") hold that:

(1) type-C materialism is plausible?

No: "Despite its appeal, I think that the type-C view is inherently unstable. Upon examination, it turns out either to be untenable, or to collapse into one of the other views on the table" (258).

(2) on any interpretation of quantum mechanics the wavefunction sometimes evolves nonlinearly?

No: "...quantum mechanics does not force this interpretation of the situation onto us, and there are alternative interpretations of quantum mechanics on which there are no [nonlinear] collapses" (262).

(3) epiphenomenalism should be taken seriously?

Yes: "Overall, I think that epiphenomenalism is a coherent view without fatal problems...if good arguments force us to epiphenomenalism as the most coherent view, then we should take it seriously" (264-5).

(4) panprotopsychism is nuts?

No: "I think that in some ways the type-F view [i.e., panprotopsychism] is the most appealing..." (267)

(5) the two-dimensional argument against materialism is closely related to Argument D, as repaired by Kripke?

Yes: "It is quite closely related to Kripke's modal argument against the identity theory..." (269, fn. 19)

Does Jackson (in "Epiphenomenal Qualia") hold that:

(6) Nagel's batty argument shows that physicalism is false?

No: "Nagel argues that the trouble with bats et al. is that they are too unlike us. It is hard to see an objection to Physicalism here" (276).

(7) the heavy coat of the polar bear is epiphenomenal?

No. Something is epiphenomenal just in case it is "causally impotent with respect to the physical world" (276), and the heavy coat of a polar bear "slows the animal down" (277)—the heavy coat causally affects the physical world (in particular, the motion of the bear). Jackson does think there is a similarity between the heavy coat and qualia, but it's not that they're both epiphenomenal. Rather, it's that they're both supposed to be "byproducts" of natural selection.

(8) it is completely mysterious how epiphenomenal qualia fit into the world as described by science?

Yes: "...it is left a total mystery how [qualia] fit into the world view of science...this is perfectly true" (277-8).

(9) physicalists are analogous to tough-minded sea slug philosophers?

Yes: "The tough-minded slugists hold that the restricted terms...suffice in principle to describe everything without remainder" (278).

(10) a premise of the Knowledge argument is that imprisoned Mary does not know what it's like to be a normal person living in a multicolored environment?

No: "When I complained that all the physical knowledge about Fred was not enough to tell us what his special colour experience was like, I was not complaining that we weren't finding out what it is like to be Fred. I was complaining that there is something about his experience, a property of it, of which we were left ignorant. And if and when we come to know what this property is we still won't know what it is like to be Fred, but we will know more about him" (276). In this quote, we are in a position analogous to Mary's, and Fred's position is analogous to that of a normal person living in a multicolored environment.

### Problem Set 10. Assigned 5/5. Due in recitation 5/12. Answer "yes" or "no" unless otherwise indicated.

Does Levine (in "Materialism and Qualia") hold that:

- (1) partly in response to the inverted spectrum argument, some functionalists gave up the idea that all mental states are functional states? Yes. "...some functionalists propose to deal with this problem is to return to a physicalist type-identity theory for sensory qualia." (pg. 355)
- (2) some identity statements do not leave an explanatory gap? Yes. Levine says

that the statement "Heat is the motion of molecules" is fully explanatory, with nothing crucial left out (pg. 356)

- (3) pain is identical to c-fiber firing? No. Although Levine's argument doesn't show that materialism is false, he thinks that the explanatory gap between the psychological and the physical that he points to is problematic for materialism. So Levine doesn't claim that pain is identical to c-fiber firing (and he also doesn't claim that it isn't).
- (4) if pain is a functional state, science will probably discover that it is? *No. "…even if some psycho-physical (or psycho-functional) identity statements are true, we can't determine exactly which ones are true."* (pg.358)
- (5) even if pain is in fact identical to the opening of D-valves, God could have created pain without creating D-valves? No. Levine agrees with Kripke that any psychophysical identity will be necessarily true if true at all. His argument on p. 358 is designed to show that the fact that there is an explanatory gap explains the seeming contingency of the identity. The fact that conscious experience is not fully explained bypsycho-physical identity statements means that we may 'pry them apart' in imagination.

Does Stoljar (in "Two Conceptions...") hold that:

- (6) a priori o-physicalism is false? No. Stoljar thinks that we can maintain a priori o-physicalism in the face of the conceivability arguments even if they knock down a priori t-physicalism (pg.315)
- (7) qualia supervene with metaphysical necessity on physical properties (understood on the theory-based conception)? *No. Stoljar thinks that qualia supervene on the o-physical properties, not the t-physical properties (pg.320)*
- (8) God created triangles and pieces of pie? No. It's an analogy.
- (9) consciousness will always remain a mystery? No. Stoljar considers this and the opposing view that we could develop concepts which would be explanatory of consciousness, but then says that it is not important for his purposes to decide between these possibilities. He also says that the goal of obtaining o-concepts is "something to which we can aspire". (pg.322)
- (10) we have reason to believe that qualia are sometimes causally efficacious with respect to physical events? *Yes. Stoljar thinks that we have reason to believe that*

epiphenomenalism is false. See page 319; that epiphenomenalism is false is the  $4^{th}$  thesis in the fixed-up consistent tetrad.