

Spring Semester, 2007  
Instructor: Jeff Horty  
Syllabus Version 1.0  
January 23, 2007

PHIL 858B:  
Defaults and Reasons

## Description

This is an experimental seminar, organized around an idea, or a hope. The idea is that default logic can be used to develop a formally precise theory of reasons—what they are, how they interact—and that this theory can then be applied to other areas of philosophy in which talk of reasons is common, such as ethics or epistemology.

In order to explore this idea, we will have to spend some time understanding default logic—more particularly, prioritized default logic, and more particularly still, prioritized default logics in which it is also possible to reason, by default, about the priorities among defaults. I will try to guide you through this work as gently as possible, but there is no question that some of it is complicated and technical; students enrolled in the seminar should be prepared to read papers in logic. They should also be prepared to read papers that are not in logic, but in ethics or epistemology, and in this case I hope they will be willing to explain to me what is going on. I mean that.

Given the experimental nature of the seminar, I'm not exactly sure how things will develop, but I do have the first part of the course pretty well mapped out. We'll begin by looking at (A) Raymond Reiter's classic paper on default logic, along with bits of nonmonotonic inheritance reasoning. Then, to illustrate the applicability of default reasoning, we'll look at (B) some of the literature on normative conflicts ("moral dilemmas"), the problems they create for deontic logic, and how defaults can help. After that, we'll turn to (C) a careful study of prioritized default logics, as well as, possibly, (D) the alternative formalism of argument systems, although this latter topic may be skipped entirely. At this point, we'll move on to applications, beginning with (E) moral particularism, Jonathan Dancy's argument from "reason holism" to particularism, and a suggestion, based on our study of default logic, about how we might allow for reason holism without being forced into particularism. We may then turn to (F) some comparisons between the account of default reasoning developed in this course and John Pollock's theory of defeasible reasoning in epistemology.

This is as far as I've got; after this, I'm not sure where to go. We can decide as a class what to look at next, but some options include: (G) some recent literature on the significance of disagreement among peers in epistemology and its relation to multiple extension in default logic; (H) the epistemic significance of "floating conclusions" in nonmonotonic reasoning; (I) constructivism as a metaethical position; and (J) legal rules, case law, and precedent.

## Time and place

Thursdays, time not yet determined, Skinner 1116.

## Office, phone, etc.

Office: Skinner Building, Rm. 1101. Office phone: I don't use my office phone. Home phone: 301-585-4586. You are welcome to call me at home. Email: horty@umiacs.umd.edu. I'll let you know my exact office hours once they've sorted themselves out, but I'm generally available for appointments.

## Course materials

Most of the more recent things are available on the web, other papers for copying will be in the Philosophy Lounge. I'll let you know where to find various things as we get to them.

## Course work

Students who want credit for the course must do two things:

1. Turn in assigned problem sets, which will be nuts and bolts, nothing tricky. Their main function, in fact, is to show me how well you're understanding the material.
2. Complete a final project, which can have one of two forms: (a) an original paper, prepared as if for submission to a journal, and possibly submitted to a journal; or (b) a final, more extensive problem set. If it's at all possible, I'd encourage students to take option (a), and I'll work with you on that.

The course will be run as a seminar, and everyone attending, students and auditors, will have to help present some of the material. For the most part, I'll try to present the technical work myself and then hope to rely on others to present the non-technical work, though this may shift around a bit.

## Course topics

Here is a tentative, initial list. The list of readings may still be revised, and further topics will be added as we decide where we want to go in the second part of the course.

### A. Default reasoning.

1. Default logic.

Readings: Reiter [43].

Background and related material: Horty [27], Reiter and Criscuolo [44].

2. Nonmonotonic inheritance reasoning.

Readings: Horty [24], Touretzky et al. [46].

Background and related material: Fahlman [17], Horty et al. [31], Touretzky [45].

### B. Normative conflicts

1. Orientation.

Readings: Gowans [19].

2. In favor of conflicts.

Readings: Lemmon [32], Marcus [33], Williams [49], van Fraassen [47].

3. Opposed to conflicts.

Readings: Brink [6], Conee [7], Donagan [14], Pietroski [34].

Background and related material: Donagan [15].

4. Imperatives and defaults.

Readings: Horty [25], Horty [28].

Background and related material: Horty [23].

5. Problems with the logic.

Readings: Goble [18], Hansen [20].

C. Prioritized default reasoning.

1. Order of application theories.

Readings: Baader and Hollunder [1], Brewka [3], Brewka [4].

2. Delgrande and Schaub.

Readings: Delgrande and Schaub [11].

Background and related material: Delgrande and Schaub [12], Delgrande et al. [13].

3. An inheritance based theory.

Readings: Horty [29].

4. Brewka and Eiter.

Readings: Brewka and Eiter [5].

5. Hansen's approach.

Readings: Hansen [21].

D. Argument systems.

1. The basic theory.

Readings: Dung [16], Bondarenko et al.[2].

Background and related: Prakken and Vreeswijk [41].

2. An argument system with priorities.

Readings: Prakken and Sartor [40], Prakken and Sartor [39].

3. Criticism and response.

Readings: Horty [26], Prakken [38].

E. Reasons and particularism

1. Reasons.

Readings: Raz [42]

2. Particularism.

Readings: Dancy [8], Dancy [10].

Background and related material: Dancy [9], Hooker and Little [22].

3. A theory of reasons.  
Readings: Horty [30]

F. Pollock’s theory.

1. The theory.  
Readings: Pollock [35], Pollock [36].  
Background and related material: Pollock and Cruz [37].
2. Analyzing the theory.  
Readings: Prakken and Vreeswijk [41], Vo, Foo, and Thurbon [48].

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