# **Types and Tokens**

Graduate Seminar, University at Buffalo, Fall 2005

PHI513S

Fabian Neuhaus and Boris Hennig (<u>Institute for Formal Ontology and Medical Information Science</u>), with contributions by Barry Smith

How many characters are in "Buffalo"? If your answer is 'seven', then you have counted the number of the concrete disconnected ink deposits on the page in front of you. If your answer is 'six', then you have counted the number of letters. The third and the fourth ink deposits of the word above are tokens (particulars, instances, members) of the same type (universal, kind, natural class), namely of the letter *f*. Types have peaked the curiosity of philosophers at least since Plato. Important questions are: How many kinds of types are there? What is the ontological status of types? Are there types of types? How do they relate to their tokens?

In first third of the course we will read D. M. Armstrong, *Universals. An Opinionated Introduction*, Westview Press, 1989 (still in print). Participants of the course are asked to prepare chapter one for the first session. The course will include a workshop on 10/01. We will then turn to some classical philosophical expositions of the distinction between types and tokens.

## Timetable

Wednesdays 4-6 pm, plus 1-hour tutorial sessions to be decided

08/31 1.	The Problem		
09/07	2.	Natural Class Nominalism	
09/14	3.	Resemblance Nominalism + Bundle Realism	
09/21	4.	Universals	
09/28	5.	Tropes	
10/01	69.	Saturday (10am to 5pm) Workshop (BS, FN & BH)	

10/05	10.	Peirce
10/12	11.	Mill's natural groups
10/19	12.	Prototypes
10/26	13.	Substances and essences
11/02	14.	Kripke

## **Detailed Overview**

1. The problem of universals according to Armstrong (Universals, chapter 1)

2. What distinguishes the classes of tokens that mark off types from those that do not? (chapter 2)

3. According to one account, the classes that mark off types are *resemblance classes* (chapter 3). Instead of constructing types as classes of tokens, one might as well construe tokens as bundles of universals (chapter 4).

4. Universal may also be considered attributes rather than classes. Attributes are entities that directly correspond to predicates (chapter 5).

5. There are universal attributes and particular attributes, which latter are called "tropes" (chapter 6). Summary of Armstrong's discussion (chapter 7).

6.-9. Workshop (timetable to be announced)

10. In the second section of the course we proceed backwards in history. The "type/token" distinction as such was introduced by C.S. Peirce (Apology for Pragmatism, *Collected Papers* 4.537).

11. In his System of Logic, J.S. Mill already tried to give an account of "natural classes" (IV,vii,§2).

12. The prototype theory mentioned by Mill has a long history. It begins with Plato (*Parmenides*, 130e–133a).

13. Aristotle claims that there are two kinds of predicative relations in reality. There are substantial or essential qualities on the one hand, and accidental qualities on the other hand (*Categories*).

14. Saul Kripke has suggested an account of natural kinds that combines Aristotle's and Plato's approaches. Type reference is established by a prototypical situation in which we "fix the reference" of a word. Independently of that, the item in question has a real essence that determines its type (*Naming and Necessity*, Lecture III).

#### Grading

70% of the grade will be calculated on the basis of a substantial essay, to be submitted in at least 2 drafts, the final draft before 10/26. 30% of the grade will be calculated on the basis of participation in class discussions and short presentations.

#### Reading

D.M. Armstrong. Universals - An Opinionated Introduction. Westview Press, 1989.

And selections from:

Aristotle, Categories.

Plato, Parmenides.

John Stuart Mill, A System of Logic, Ratiocinative and Inductive. 1891.

Charles Sanders Peirce, Collected Papers. Harvard University Press, 1960.

Saul A. Kripke, Naming and Necessity, Oxford 1980.