Correction to "Oracles and Queries that Suffice ..."

April 26th, 1996

In Theorems 16 and 21, Σ_3^p should be replaced by Σ_5^p.
The following will appear as a note in proof in the journal version of the paper:

In previous versions of this manuscript we claimed that for Theorems 16 and 21 an oracle in Σ_3^p sufficed instead of Σ_5^p. We do not know whether this is true. The problem is in the application of Lemma 15. That lemma gives a way of finding in Σ_3^p a hypothesis that discards a substantial fraction of candidate *representations, provided* such a hypothesis exists. However, at that point we can only guarantee the existence of a hypothesis that discards a substantial fraction of candidate *concepts.* The problem is solved by considering exactly one representation for each concept (up to some length bound). For example, one can consider lexicographically minimal representations only. Checking for minimality is in Π_2^p, then apply the analog of Lemma 15 with an oracle in $\Sigma_3^p(\Pi_2^p) = \Sigma_5^p$. This problem does not arise in the other results of the paper.