direct access to some concepts in memory. From these concepts, the subject must retrieve enough propositions encoding the event to permit recall. Our analysis is focused on the process by which a subject searches out from a concept node to try to retrieve the correct propositions. Connected to such a node will be a set of *n* irrelevant propositions encoding information unrelated to the memory episode and a set of *m* relevant propositions encoding the memory episode. We view the relevant propositions as highly redundant. That is, the subject need only retrieve a few of these *m* propositions to enable recall. There are two important variables affecting recall—*n* and *m*. The *n* irrelevant propositions provide interference—as this number increases, memory performance should deteriorate, because it will be harder to find the relevant information. For a review of evidence relevant to this interference prediction, see Anderson (1976, Chap. 8). We will return to the effect of *n* later. The *m* relevant propositions provide redundant encoding of the information—as this number increases, memory performance will improve. We see elaborations as affecting this redundancy factor.

Note that this analysis replaces the qualitative concept—depth of processing—with a quantitative concept—number of elaborations. We claim that people are better able to elaborate certain kinds of information than others and that "deep," semantic information tends to be more conducive to elaboration than "shallow," phonemic information. However, the degree of "depth" is not a function of semanticity per se, but rather is a function of the extent of past experience with the information. Thus, we speculate that a phonetician would find the phonetic level very helpful. Also, within the semantic level, we expect to see large variations depending on the amount of experience with that topic.

We agree with Fisher and Craik's (1977) conclusion that certain types of information are inherently easier to remember than others and find ourselves in disagreement with the extremely relativistic positions put forth by Bransford, Franks, Morris, and Stein (Chapter 15, this volume) and Tulving (Chapter 19, this volume). No doubt, if one encodes semantic information, one will be ill-prepared for a phonetic test and vice versa, but it still can be meaningful to inquire, within the context of a theoretical framework, which type of information is more easily encoded. For instance, even though two different input devices are encoding different information into a computer memory, it makes sense to ask which is encoding more information (as measured within an information-theoretic framework) and why.

We would like to consider one class of explanations of depth of processing that seemed especially popular at this conference. This kind of explanation states that a deeply processed item suffers less interference (Wickelgren, 1973), or is more distinctive (Eysenck, Chapter 5; Nelson, Chapter 3, this volume), or is more differentiated from other items (Bransford, et al., Chapter 15, this volume). These various explanations are at different stages of articulation and