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**Shay A Logan\*** (logan110@umn.edu), Philosophy Department, 831 Walter Heller Hall, 271 19th Ave South, Minneapolis, MN 55418. *Abstractionist Categories of Categories*.

The most famous abstraction principle is Frege's Basic Law V:

$$\forall X \forall Y (\S(X) = \S(Y) \Leftrightarrow \forall x (Xx \Leftrightarrow Yx))$$

Which matches each concept to a unique object called its extension. Basic Law V is notoriously unsatisfiable, but consistent restrictions of it are a perennial object of study.

In this talk I present an abstraction principle whose abstracts are functors with sufficiently small domain and codomain. The principle is produced by identifying any two sufficiently well-behaved functions with the same domain that agree on all their **2**-elements.

By identifying the identity functors in the range of this principle with the categories they (intuitively) are the identity functors of, we recover abstractionist categories of categories. The existence of nontrivial models is dependent on the existence of at least two inaccessible cardinals. With this assumption, however, the categories of categories that arise are shown to be finitely complete and co-complete and cartesian closed. The internal structure of a given category  $\mathcal{C}$  can be, as usual, recovered by examining functors from small ordinal categories into  $\mathcal{C}$ . (Received September 16, 2014)