

Cappelen and Lepore:
Chapter 6—Binding Arguments

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1 Binding Arguments

So-called *binding arguments* are designed to show that a sentence contains in its logical forms a further element beyond the ones that we see on the page or hear in spoken language. Suppose that S is the target sentence that is supposed to be shown to contain extra material. A binding argument for S focuses on a sentence with the form (1).

(1) (*quantifier phrase*) S .

Suppose that we interpret the quantifier phrase in terms of a Tarski-style set of variable assignments. Crucially for a binding argument, the interpretation of S has to vary as we consider different variable assignments.

C&L's example makes this point:

(2) In every class, many students failed.

In (2), the interpretation of *many students failed* varies systematically with the assignment of variables we use in the interpretation of *in every class*.

2 C&L's Aims

- Binding arguments, by themselves, don't show context-sensitivity.
- Binding arguments overgenerate.
- The conclusion binding arguments are used to argue for are objectionable on other grounds.

The first aim is easy and obvious, as far as I can tell. It simply consists of pointing out that binding arguments only establish the first of the following two claims, which is compatible with the second (and that claim denies context-sensitivity)—taken from C&L, 73.

HIDDEN DOMAIN VARIABLE Every noun phrase in a quantified noun phrase cohabits with a domain variable in LF.

CONTEXTUAL INSENSITIVITY OF QUANTIFIER DOMAIN RESTRICTIONS Sentences containing quantified noun phrases are semantically stable (with respect to their domains).

Like C&L say, this doesn't come as a surprise to anybody.

3 Overgeneration

Focus on sentence (3).

(3) Everywhere I go, $2+2=4$.

Here's what C&L say about how this sentence also leads to a binding argument showing that the sentence $2+2=4$ also has a hidden variable.

Intuitively (3) says that for every place Sally goes, $2+2=4$ at that place. So we should present the logical form of (3) along the following lines.

(4) For all places x , if Sally goes to x , then $2+2=4$ at x .

The quantifier phrase ‘Everywhere Sally goes’ is binding a place variable in the logical form of ‘ $2+2=4$ ’—*otherwise, there would be nothing for the quantifier phrase to bind*. This establishes that the logical form of the sentence ‘ $2+2=4$ ’ has a freely occurring place variable. (74)

The highlighted bit seems important. There’s a general prohibition against vacuous binding, i.e., having a binder in the LF of a sentence that doesn’t bind anything. It accounts, for example, for the contrast between. (This example is from Chomsky, *Some Concepts and Consequences of the Theory of Government and Binding*—1982, p. 9).

- (5) a. *the man [who John saw Bill].
b. the man [who John saw *t*].

who is the operator that is vacuous in one case but not the other. Kratzer (*Stage Level and Individual Level Predicates*) formulates the constraint like this—it’s one of the few formulations I’ve been able to find.

PROHIBITION AGAINST VACUOUS QUANTIFICATION For every quantifier *Q*, there must be a variable *x* such that *Q* binds an occurrence of *x* in both its restrictive clause and its nuclear scope.

The LF-representation that C&L present satisfies that constraint.

4 Further Objections

4.1 Anaphora

The hidden indexicals don’t seem to be available for anaphoric reference.

- (6) Many students failed, and *it* is a big domain. (=14, p. 76)

4.2 A priori Truths

The following contrast can’t be explained if we posit hidden indexicals.

- (7) a. I am the person who utters this sentence. (knowable a priori)
b. Everyone is in the contextually salient domain. (not knowable a priori)

C&L consider the suggestion that the contrast is due to a general principle of reference resolution that they call *screening off*:

A hidden indexicalist might protest that these alleged troublesome interpretations are never available. Perhaps a policy of *screening off* is in place, thereby excluding any contextually determined domain that is explicitly references in a predicate (or elsewhere). (81)

And they say:

Whatever can be said in favor of screening off surely reflects nothing more than handy wisdom about the pragmatics of sound interpretation, and *nothing* about semantics. (82)

Really?

- (8) (from Partee, *Binding Implicit Variables in Quantified contexts*)
a. One of the ten balls is missing from the bag. It’s under the couch.
b. None of the ten balls are in the bag. # It’s under the couch.
(9) a. A woman is at the door. She is the discourse referent.
b. A woman is at the door. She is the person salient in the context.