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Dissertation Abstract

Arguments are an important source of data for formal semantics: if we judge one to be valid, we can test a semantic proposal by seeing if it categorizes that argument correctly. In my dissertation, I argue that although David Kaplan's widely accepted semantics of indexicals is correct for individual sentences, the accompanying logic he proposed does not account for most of the valid arguments which involve indexicals. I propose a new logic, which deals not only with the minority of arguments which take place in the same context, but also with ones in which the context changes. This addition is crucial; after all, I can continue an argument you start, I can contradict you, and you can continue an argument you began yesterday, but never finished, because you went out to lunch. All of these essentially involve a mid-argument context change: time passes between premises, the speaker and the addressee change roles, etc.

What makes indexicals interesting is the fact that their referent varies with the context of utterance. For instance, "I" refers to me when I use it, but it refers to my mother when she uses it. Other words are similarly unstable in their reference: "this" and "that" can refer to just about any object, depending on what the speaker intended or was pointing to – or just on the fact that only one red Ferrari stood out among a group of gray, drab sedans. Indexicals used to be a prime example of words which were thought to be outside the domain of formal logic. Strawson, for instance, argued that logic needs more stability than indexicals can offer. Once we need to talk of contexts, we are outside the realm of the formal. David Kaplan was, in this respect, taking on Strawson when he wrote (and, much later, published) "Demonstratives", which contains just such a formal treatment of indexicals. It still provides the dominant semantical framework for them. His main idea was that indexicals are referentially fleeting, but they have a stable meaning. This is all the regularity that we needed; as long as the values can be obtained from the context in a rule-bound way, semantics has traction on indexicals.

Having proposed a formal semantics of indexicals, Kaplan also developed a logic of indexicals, somewhat misleadingly called "LD" (as in "logic of demonstratives"). Some of the features of his logic come from the formal semantics; these I accept, and even defend against some objections in my dissertation. But some features go against the grain of the semantics, and are simply implausible: arguments are forced to have all their steps within a single context of utterance. The central points of my dissertation are these: I argue that LD's restriction is incorrect, I provide a logic that does without it, and then I look at what this new logic teaches us about the notions of argument and validity, and about our understanding of what an indexical is.

The restriction of arguments to a single context is not without reasons. Chapter 1 begins with Scott Soames's claim that this cannot be avoided if we want to construct a logic of indexicals. The heart of his argument is that, if contexts are allowed to change mid-argument, there would be no guarantee that two occurrences of an indexical will have the same semantic value, and thus even the most basic logical laws, like Modus Ponens, would turn out to be invalid. But there are arguments which we intuitively judge as valid, and which not only *allow*, but *depend* on each step in the argument having its own, distinct context. When Jerry says to Elaine: "If you want to go to the movies, we'll go to the movies", and Elaine replies: "I do want to go to the movies", Jerry is expected to draw a *logical* conclusion. In the rest of the chapter, I develop a logic of indexicals, "LI", which does allow contexts to change within an argument. Soames's mistake, shared by the whole tradition that follows LD, is to overlook the fact that abstract relations between contexts (such as one being

exactly one day later than another, or two contexts having the speaker and the addressee switch roles) can be captured formally, so that validity is defined partly as a function of such features, rather than depending only on the sentences used.

LI, as its name suggests, is designed for indexicals. There is another class of context-sensitive expressions included in the vocabulary of LD, namely demonstratives, words like "this" and "that". Traditionally, the distinction between indexicals and demonstratives has been built on the observation that demonstratives get their semantic value from the context of utterance only with the help of the speaker's intentions, whereas indexicals do it automatically. For instance, "I" picks out the speaker of the context, irrespective of the speaker's intentions to refer to, say, David Hume, which will be thwarted for anyone but David Hume himself. In Chapter 2, I propose a new way to distinguish these two kinds of words. The most important case is "you", the second person singular pronoun. It is the most important, first, because "you" is a central part of the vocabulary of LI, which is only designed for indexicals, and second, because it points precisely at the place where the tradition went wrong. I argue that, even though the speaker's intentions play a role in determining whom she is addressing, "you" is an indexical. The reason is that typical utterances have an addressee, just as much as they have a speaker, irrespective of the words being uttered, and, most importantly, whether or not the words "I" or "you" are used. By contrast, each occurrence of a demonstrative needs its own personal assistance from the speaker. Furthermore, the existence of demonstrata is not part of the normal background conditions of utterances. The occurrence of a demonstratum requires that the utterances contain a demonstrative; whereas the occurrence of an addressee *is* part of the normal background conditions of utterances and does not require the use of "you". The intentions needed by demonstratives, then, are targeted at those particular uses, or tokens, of demonstratives. I find this new distinction – roughly, between the token-focused intention required by each separate occurrence of a demonstrative and the background intentions required to be speaking English or to be addressing someone – fairly easy to grasp in its broad outlines, but spelling it out requires a number of delicate distinctions, which take up much of the chapter. Then, I survey a number of other criteria proposed in the literature, and conclude that most fail to do the job, while one of them can be developed in a manner friendly to my proposal. In the final section, I make some proposals about a future logic of demonstratives with context changes: it will be closer to a logic of actual utterances than LI.

In Chapter 3, I discuss ways in which LI differs conceptually both from classical first order logic and from LD, its closest ancestor. The most central difference is the fact that, in LI, an argument is made up of sentence-context pairs, not just sentences. In the first part of the chapter, I argue that this feature of LI has its origin in a disputed part of LD: "I am here now" is a logical truth, that is, it is true in every context, because there is a requirement on all contexts that the speaker of each context is at the place, time, and world of that very context. I first defend this from an objection made by Stefano Predelli, and then draw the lesson that thinking about essential features of typical contexts of utterance should be part of what motivates and guides any logic of indexicals. Then, I point out the ways in which LI is forced to depart from LD, a conceptual distance that explains why Soames thought impossible any logic that allows context changes. The end of the chapter is dedicated to ways in which we can be said to know what the form of an argument is. This issue is fairly simple for regular arguments, since it seems to involve only linguistic knowledge. Since contexts are part of the argument in LI, different ways in which we are epistemically related to various relations between contexts will generate different intuitions about what to count as valid. This explains away the feeling of uneasiness that comes with LI declaring some truths to be valid, even though they seem intuitively quite far from it.