

Indexicality (Kaplan 1977, 1979)

1. INTRODUCTION

- Pure vs. demonstrative indexicals (Kaplan 1977)

“I tend to describe my theory as ‘a theory of demonstratives,’ but that is poor usage...

The group of words for which I propose a semantical theory includes the pronouns *I, my, you, he, his, she, it*; the demonstrative pronouns *that, this*; the adverbs *here, now, tomorrow, yesterday*; the adjectives *actual, present*; and others. ...

What is common to the words or usages in which I am interested is that the referent is dependent on the context of use and that the meaning of the word provides a rule which determines the referent in terms of certain aspects of the context. The term I now favor for these words is INDEXICAL [MB emphasis]¹.

Some of the indexicals require, in order to determine their referents, an associated demonstration: typically...a... presentation of a local object discriminated by a pointing. These indexicals are the true DEMONSTRATIVES [MB emph.] and *that* is their paradigm.

...[in] contrast [for] PURE INDEXICALS [MB emph.] *no associated demonstration is required, and any demonstration supplied is either for emphasis or is irrelevant*. Among the pure indexicals are *I, now, here* (in one sense), *tomorrow*, and others. ...[e.g.] the speaker refers to himself when he uses *I*, and no pointing to another or believing that he is another or intending to refer to another can defeat this reference.

Michael Bennett has noted that some indexicals have both a pure *and* a demonstrative use. *Here* is a pure indexical in *I am here* and is a demonstrative in *In two weeks, I will be here [pointing to a city on a map]*.”

- Characteristic behavior of indexicals

(A) *Analyticity*

e.g. (1) and (2) are analytic (true in virtue of their meaning)

(1) I am here (now).

(2) I exist.

(N) *Non-necessity*

However, the propositions (1) and (2) express are NOT necessary, e.g. compare (3) and (4):

(3) I am here (now), but (if I had a different teaching schedule) I might’ve been somewhere else.

(4) I exist, but (if my parents had never met) I wouldn’t have been born.

(R) *Rigid reference*

“See how rigidly the indexicals cling to the referent determined in the context of use”

(Kaplan 1977):

(5) It is possible that next year people in Germany will cheer (, not jeer) the man who is actually the president of our country now. [MB example, Kaplan’s is ungrammatical so it’s hard to get]

(D) *Dual (pure or demonstrative) use of indexicals like here*

(6) I am *here* now, but tomorrow I’ll be *here* [pointing to Amsterdam on a map].

¹ Green (1996) attributes this term to Bar-Hillel, Y. (1954) ‘Indexical expressions’. *Mind* 63:359–379. Kaplan (1977) suggests Peirce, but does not give any reference.

2. KAPLAN'S STORY: LOGIC OF DEMONSTRATIVES (LD)

(A) Analytic meaning as LD-valid character

(1) I am here (now).

(1') N Located I Here

A1. CONTENT (proposition expressed) in context c (in $M = \langle C, W, U, P, T, \llbracket \cdot \rrbracket \rangle$ under g):
 The CHARACTER (meaning) of ϕ is the function that to each M, g, c assigns the CONTENT (intension) $\{\phi\}^{M, g, c}$. In particular, for (1') the intension is the following proposition:

For any $t \in T, w \in W$, (i) iff (v):

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|------|---|-----------|
| i. | $\{N \text{ Located I Here}\}^{M, c, g}(t, w) = \text{Truth}$ | |
| ii. | $\models_{M, c, g, t, w} N \text{ Located I Here}$ | D2.2 |
| iii. | $\models_{M, c, g, c_T, w} \text{Located I Here}$ | D5.10.i |
| iv. | $\langle \llbracket I \rrbracket_{M, c, g, c_T, w}, \llbracket \text{Here} \rrbracket_{M, c, g, c_T, w} \rangle \in \llbracket \text{Located} \rrbracket(c_T, w)$ | D5.2 |
| v. | $\langle c_A, c_P \rangle \in \llbracket \text{Located} \rrbracket(c_T, w)$ | D5.12, 13 |

A2. TRUTH in context c (in $M = \langle C, W, U, P, T, \llbracket \cdot \rrbracket \rangle$)(Abbreviation: $\models_{M, c} \phi$ for ϕ is true in context c in the model structure M)

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|------|--|---------------------|
| i. | $\models_{M, c} N \text{ Located I Here}$ | |
| ii. | $\forall g: \{N \text{ Located I Here}\}^{M, c, g}(c_T, c_W) = \text{Truth}$ | D6 |
| iii. | $\forall g: \langle c_A, c_P \rangle \in \llbracket \text{Located} \rrbracket(c_T, c_W)$ | A1 |
| iv. | $\langle c_A, c_P \rangle \in \llbracket \text{Located} \rrbracket(c_T, c_W)$ | vacuous $\forall g$ |

A3. LD-VALIDITY

(i) iff (iii):

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| i. | $\models N \text{ Located I Here}$ | |
| ii. | for every LD-structure M and every context c of M ,
$\models_{M, c} N \text{ Located I Here}$ | D7 |
| iii. | for every LD-structure M and every context c of M ,
$\langle c_A, c_P \rangle \in \llbracket \text{Located} \rrbracket(c_T, c_W)$ | A2 |

which holds by D2.1.10.

(N) Non-necessity: LD-valid character may have contingent content

(3) I am here (now), but (if I had a different teaching schedule) I might've been somewhere else.

(3') N Located I Here $\wedge \neg \Box N$ Located I Here**(R)** Rigid reference determined by context alone

"See how rigidly the indexicals cling to the referent determined in the context of use"

(Kaplan 1977):

(5) It is possible that next year people in Germany will cheer (, not jeer) the man who is actually the president of our country now.

(5') $\diamond F \exists x (\text{Located } x \text{ Ger} \wedge \text{Cheer } x \text{ the } y \text{ NA } y = \text{Pres. of Land. of } I)$ **(D)** Dual use of here: Pure indexical (Here) vs. demonstrative (dthat[α])

(6) I am here now, but tomorrow I'll be here [pointing to Amsterdam on a map].

(6') N Located I Here $\wedge F$ Located I dthat[the l Point.at I l]