Discussion about Monsters
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Purpose of the discussion
Kaplan’s prohibition against monsters is this:

My liberality with respect to operators on content, i.e., intensional operators (any
feature of the circumstances of evaluation that can be well defined and isolated) does
not extend to operators which attempt to operate on character. Are there such operators
as ‘In some contexts it is true that’....?
I am not saying we could not construct a language with such operators, just that
English is not one. And such operators could not be added to it. Kaplan (1977: 510)

These operators are called monsters. Schlenker (2000) claims that this empirical claim is
wrong for many languages including English. For him predicates expressing attitudes are
monsters. The discussion wants to find out whether Schlenker is right.

Kaplanian characters

I adapt Kaplan’s logic of demonstratives to a type-theoretical framework, which most
linguists use in following proposals by R. Montague. I will use a somewhat changed version
of the system of Cresswell (1973), according to which sentences have the proposition type p.

Logical types: e, t, i(times), s(worlds), p = <eis,t> egocentric propositions
Character χ: functions from contexts into intensions.
The meanings of expressions are characters.

Where α is of type a, the character of α || α || is a function from the set of contexts C into the
a-intensions. The semantic domain of such characters is called M_a, i.e., the “meanings “ of
type a.

The meanings of expressions of type a are in M_a, i.e., they are characters of type a.

A term is directly referential or rigid if its intension is constant at each context. An
expression is indexical or context dependent iff its intension is different for at least two
contexts. Expressions that are not context dependent are absolute/stable. Individual terms
that are absolute but not rigid are descriptive.

The character ϕ is true at context c iff ϕ(c)(i(c)) = 1, where i(c) is the index of c = <agent(c),
world(c), time(c)>. The statement 〈ϕ,c〉 is necessary if ϕ(c) is the necessary proposition.
The character is a priori if it is true at ever context. A character is analytic if it is a priori and
it expresses the necessary proposition at every context.

A model is a function assigning a character to each expression and a distinguished
context c*. A sentence is logically true iff it is true in every model.
**Prohibition against monsters as special functional application**

The prohibition against monsters can be formulated by admitting only the following principle of functional application:

1. Kaplanian functional application (FA) for characters
   
   \[ \varphi \text{ is of type } <a,b>, \chi \text{ is of type } a \]
   
   \[ \text{FA}(\varphi, \chi)(c) = \varphi(c)(\chi(c)) \]

**Example:**

2. 

3. Lexicon
   
   \[ || \text{PRES} ||(c)(p)(x,w,t) = 1 \text{ iff } p(x,w,\text{time}(c)) = 1, \text{ for any proposition } p \]
   
   \[ || I ||(c) = \text{agent}(c) \]
   
   \[ || \text{am} \text{located} ||(c)(b)(a)(x,w,t) = 1 \text{ iff } a \text{ is located at place } b \text{ in } w \text{ at } t, \text{ for any individual } a \text{ and place } b \]
   
   \[ || \text{here} ||(c) = \text{place}(c) \]

**Evaluation of the LF:**

For any context \( c \) and index \( (x,w,t) \):

\[ || \text{PRES} ||(c)(x,w,t) = 1 \text{ iff } || \text{am} \text{located} ||(c)(x,w,t) = 1 \text{ iff } || \text{here} ||(c) = \text{place}(c) \]

**Attitudes**

The object of an attitude is a character, the object of an attitude report is a proposition (better: property) in Kaplan’s theory.

Consider the context \( c \) where Kaplan sees himself in the mirror and thinks “My pants are in fire”.

K. describes this as:

4. Kaplan believes in world(c) at time(c) the character \( \chi \),

   where \( \chi = \lambda c \lambda x \lambda w \lambda t [ \text{the pants of agent}(c) \text{ are on fire in } w \text{ at time}(c)] \)
What does it mean to have an attitude towards a character? I follow Haas-Spohn (1995) in assuming that this means that the subject of the attitude self-ascribes the diagonal property.\(^1\)

5. The diagonal operator \(\partial\)
   
   Let the index of \(c - i(c)\) be \(<\text{agent}(c), \text{world}(c), \text{time}(c)>\).
   
   Then \(\partial \chi\) is the property \(= \lambda c[\chi(c)(i(c))],\) i.e., the set of contexts in which \(\chi\) is true.

6. Analysing attitudes

   Subject \(x\) believes, character \(\chi\) in \(w\) at \(t\) iff \(x\) self-ascribes \(\partial \chi\) in \(w\) at \(t\) (cf. Lewis (1979))

The operator (or similar operators) have been used to interpret attitudes by researchers like Stalnaker (1972), Stechow (1982a), Stechow (1982b) and Haas-Spohn (1995). Kaplan (1977: § 20) has sketched a semantics for attitude reports that works without \(\partial\) in the object language.

For the example given we have:

\[
\partial \chi = \lambda c[\lambda x \lambda w \lambda t[\text{the pants of agent(c) are on fire in w at time(c)}](c)(i(c))] \\
= \lambda c[\text{the pants of agent(c) are on fire in world(c) at time(c)}] \\
= \lambda x \lambda w \lambda t[\text{the pants of x are on fire in w at t}]
\]

So Kaplan believes \(\chi\) in \(c\) if he self-believes in \(c_w\) at \(t_w\) the property having his pants in fire.

I am using the subscript “a” for denoting relations expressing attitudes. Obviously ‘believes,’ is a monster. The prohibition against monsters entails that the English verb \(\text{believes}\) cannot mean ‘believesa’.

**Attitude reports**

Let us call mark the verb \(\text{believe}\) of the object language with the subscript \(r\) “reporting”.

It is Kaplan’s point that the character is not an argument of the \(\text{believe}\), in the object language. The argument of this verb must be an intension, i.e. an egocentric proposition.

This is an analysis following the remarks of “Adding ‘says’”:

7. \(\parallel\) Kaplan, believes, that his pants are on fire \(\parallel(c)(w,t) = 1\) iff \(\exists c \exists\chi[\text{time(c) = t} \& \text{agent(c)}\]
   
   \(= \text{Kaplan} \& \text{word(c) = w} \& \chi(c) = \lambda w* \lambda t*[\text{Kaplans pants are on fire in w* at time(c)}] \&\)
   
   Kaplan believes, \(\chi\) in \(w\) at \(t\)

8. \(\parallel\)
9. Verbs reporting attitudes (Kaplan, sect. XX “Adding 'says'”) are intensional functors.

`believe`, is of type `<p,ep>`,

\[ \| \text{believe} \| (p)(x)(w,t) = 1 \text{ iff } \exists \chi \exists c [ \text{agent}(c) = x \& \text{time}(c) = t \& \text{world}(c) = w \& \chi(c) = p \& x \text{ believes } \chi \text{ in } w \text{ at } t] \]

\[ \| \text{Kaplan } \lambda x [\text{believe}(x's \text{ pants are on fire})(x)] \| (c)(w,t) = 1 \]

\[ \text{ iff } \exists c \exists \chi [ \text{agent}(c) = \text{Kaplan} \& \text{time}(c) = t \& \text{world}(c) = w \& \chi(c) = \lambda w^* \lambda t^* [\text{Kaplan's pants are on fire in } w^* \text{ at time}(c)] \& \text{Kaplan believes } \chi \text{ in } w \text{ at } t] \]

The object of the `believe`, is specific as to time, but the object of the subjective attitude `believe`, is not! Kaplan need not know the time at which he is (against the criticism of Israel and Perry (1996)). According to this analysis, the object language is underdetermined with respect to the character actually present in the attitude.

**Schlenker’s Claim**

is that predicates of propositional attitude are monsters, i.e. Engl. `believe` expresses `,believe,`. Consequence: the above principle FA is not tenable.

10. \( \| \text{believe}, \| (\phi)(c)(i) = 1 \text{ iff } \phi(c)(i) \text{ self-ascrives } \partial \chi \text{ at index } i. \)

It follows that

\[ \| \text{Kaplan believes, that my pants are on fire } \| (c)(i) = 1 \text{ iff Kaplan self-ascrives the property of having his pants on fire} \]

an unwelcome result!

**Three type of indexicals**

Schlenker has 3 types of indexicals:
• those that get there reference from the context of the actual speech act (Kaplanian indexical)
• those that can be shifted with the context (shiftable indexicals)
• those that must be shifted with the context (logophoric)

Schlenker’s Amharic example for shiftable indexicals

11. Situation: John says: ‘I am a hero’

   john Jägna näNN ytlall
   John hero I-am says-3 sg.m
   ‘John says that he is a hero’

This not a quotation!

12. a. alöttazzäNN alä

   I-will-not-obey-me he-said
   ‘He refused to obey me’

   b. alagg∂azzäNN aläCC

   I-will-not-help-me she-said
   ‘She refused to help me’

Analysis of shiftables:

\( \phi = \text{I am a hero} \)

\( \parallel \phi \parallel (c)(x,w,t) = 1 \) iff agent\((c)\) is a hero at t\((c)\) in w

\( \parallel \text{say}_x(\phi)(\text{John}) \parallel (c)(x,w,t) = 1 \)

iff

John says\(_x\) in w at time\((c)\) \( \parallel \phi \parallel \)

iff

John self-says in w at time\((c)\) \( \partial \parallel \phi \parallel \)

The property self-said is \( \lambda x \lambda w \lambda t [x \text{ is a hero in } w \text{ at } t] \)

In a Kaplanian system we analyse shiftables exactly as in the logic of demonstratives. If the pronouns are in the scope of a monster, they are shifted.

The property self-said in the second example should be

\( \lambda x \lambda w \lambda t [x \text{ will not help agent}(c) \text{ in } w \text{ at } t] \)

So “I” is shifted and not shifted in the same context. We get that by scoping the object:

13. me \( \lambda x [\text{she said}_x \text{ I will not help } x] \)

Analysis of Kaplanian indexicals:

14. Engl. John says that I\(_{\text{engl}}\) am a hero
15. \[\lambda x([\text{John says that } x \text{ am a hero}]) = 1\]
   iff \(\forall c'\langle \text{John, w}, t, c' \rangle R_{\text{say}} c' \rightarrow \text{agent}(c) \text{ is a hero in } w_c \text{ at } t_c\]

\(\lambda\)-conversion does not hold here, because the implicit \(c\)-variable of “I” would be bound by the quantifier hidden in \(\text{says}_x\).

We analyse Kaplanian demonstratives (in a Kaplanian system) by stipulating that they have widest scope.

According to Schlenker, “two days ago” is a shiftable demonstrative in English:

16. Situation: 3 days ago (on Wednesday), John told me: ‘According to the newspaper, it rained in L.A. on Monday’. John erroneously thought that he was speaking on Thursday (i.e. 3 days after Monday). He was in fact talking on Wednesday (=M+2).
   a. John said that it had rained two days earlier
   b. #John said that it had rained two days ago

The property self-said should be

\[\lambda x\lambda w\lambda t [t^* < t \& t^* \text{ is 2 days before } t \& \text{ it rains in } w \text{ at } t^*]\]

There is no direct way to obtain this property from the Kaplanian system.² Suppose we could make sure that „it had rained two days ago“ means \(\lambda c\lambda i \exists t [t < t_c \& t \text{ is 2 days before } t_c \& \text{ it rains in } w \text{ at } t]\), then the subjective meaning would be:

\[\partial \lambda c\lambda i \exists t [t < t_c \& t \text{ is 2 days before } t_c \& \text{ it rains in } w \text{ at } t]\]

\[= \lambda x\lambda w\lambda t [t^* < t \& t^* \text{ is 2 days before } t \& \text{ it rains in } w \text{ at } t^*]\]

Yesterday is a Kaplanian indexical. In a Kaplanian framework it must have widest scope and therefore LF of

17. (Three days ago) John said that it had rained the day before yesterday
   must be something like:

18. yesterday \(\lambda t.\) John said \[\text{[it (had) rained two days before } t]\]

Here, the self-said property is

\[\lambda x\lambda w\lambda t [t^* < t \& t^* \text{ is 2 days before yesterday}(c) \& \text{ it rains in } w \text{ at } t^*]\]

² One of the problems is that PAST is an existential quantifier and cannot be restricted further be an adverb like 2 days ago. The next problem is that the sentence contains a pluperfect which shifts the past time to a pre-past. We don’t want that. We need a simple relative past and have to ignore the simple PAST for the composition.
Ewe and Gokana Logophoric Markers

The crucial property of logophoric pronouns is that they must occur in the scope of an attitude-operator.

19. a. kofi be ye~dzo [Ewe, Clements’s (1)]
   \[Kofi \text{ say } \text{LOG-leave}\]
   ‘Kofi said that he (Kofi) left’

   b. kofi be e-dzo [Ewe, Clements’s (3)]
   \[Kofi \text{ say } \text{he/she left}\]
   ‘Kofi said that he/she (≠Kofi) left’

20. Ewe: relative clause

   a. *ama dō Nku nyOnuvi hi dze ye~ gbO dyi
   ama set eye girl WH stay LOG side on

   b. ama dō Nku nyOnuvi hi dze e gbO dyi
   ama set eye girl WH stay pro side on
   ‘Ama set eye on (remembered) the girl who stayed with her’ [Clements (38)]

   c. ama gblo be ye~dō Nku nyOnuvi hi dze ye~ gbO dyi
   ama say that LOG eye girl WH stay LOG side on
   ‘Amaő say that she remembered the girl who stayed with her’ [Clements (39)]

Here the logophoric is ungrammatical.

Morgan 1970 and Chierchia 1987: PRO

21. a. Situation: John is so drunk that he has forgotten that he is a candidate in the election.
   He watches someone on TV and finds that that person is a terrific candidate, who should
   definitely be elected. Unbeknownst to John, the candidate he is watching on TV is John
   himself.
   
   b. True: John hopes that he will be elected
   c. False/#: John hopes to be elected [Ok if the thought was: ‘I should be elected’]

22. a. Situation: At a party, John is told that ‘Mary’ is being particularly obnoxious. He tells
   the person he is having a conversation with that ‘Mary should leave’. But that person is
   none other than Mary herself.
   
   b. True: John told Mary that she should leave
   c. False/#: John told Mary to leave [Ok if the discourse was: ‘Leave!’]

Controlled PRO is a logophoric pronoun. In Kaplan’s system it is interpreted exactly as “T”
with the stipulation that it has to occur in under an attitude.
Shiftable tenses

Schlenker claims that the behaviour of tenses in embedded contexts in non-SOT-languages can be explained if we characterise tenses as shiftable indexicals. Such languages are Russian and Japanese.

23. a. Pjetja i skazal, Cto miSa plaCet [Russian]

\[ Pjetja \text{ said that Misha is-crying} \]
‘Pjetja said that Misha was crying [at the time of Pjetja’s utterance]’

a’. Pjetja i skazal, Cto oni plaCet [Russian]

\[ Pjetja \text{ said that he is-crying} \]
‘Pjetja said that he was crying [at the time of his utterance]’

b. Pjetja vstretil Celoveka, kotory plaCet [Russian]

\[ Pjetja \text{ met person, who is-crying} \]
‘Pjetja met a person who is crying / cries’


\[ \text{often happened, that Misha cried-IFPV / is-crying} \]

b. It often happened that Misha cried / *is crying

German Subjunctive I as a logophoric mood

The Subjunctive I requires that the index world is a shifted context world (not in the “context set”). It is a complicated logophoric indexical.

25. Der Peter meint, a. es sei später, als es tatsächlich ist

\[ \text{the Peter thinks it be later than it really is} \]

b. es ist später, als es tatsächlich ist

\[ \text{is} \]

c. * es sei später, als es tatsächlich sei

\[ \text{be} \]

d. * es is später, als es tatsächlich sei

\[ \text{be} \]
26. a. Generalization 1: The Konjunktiv I cannot be used in the 1st person present singular of verbs such as ‘believe’ or ‘say.’
   b. Generalization 2: The Konjunktiv I cannot be used after factives.

27. a. Ich glaube, daß Maria krank ist
    I believe that Maria is sick
    b. *Ich glaube, daß Maria krank sei
    I believe that Maria be sick

28. a. Ich behaupte, daß Maria krank ist
    I claim that Maria is sick
    b. *Ich behaupte, daß Maria krank sei
    I claim that Maria be sick

29. a. Ich habe behauptet, daß Maria krank ist
    I have claimed that Maria is sick
    b. Ich habe behauptet, daß Maria krank sei
    I have claimed that Maria be sick

30. a. Peter glaubt, daß Maria krank ist
    Peter believes that Maria is sick
    b. Peter glaubt, daß Maria krank sei
    Peter believes that Maria be sick

31. a. Peter weiß, daß Maria krank ist
    Peter knows that Maria is sick
    b. *Peter weiß, daß Maria krank sei
    Peter knows that Maria be sick

**Conclusion**

If we accept the data, we seem to be forced to admit monsters in the language. There is not obvious way to analyse the facts while keeping the classical analysis of demonstratives. On the other hand, the analysis of Kaplanian demonstratives becomes rather stipulative and artificial in this presentation. Schlenker develops an extensional system which can represent the fact more insightful. Another problem is the analyse of attitude reports. We should stick close to Kaplan’s suggestions, but the monster analysis carries far into the wrong direction.


