

### ***Chisholm's paradox: detaching obligations from deontic conditionals***

**1. Introduction.** Understanding the semantics of deontic modality requires understanding the interaction between facts and ideals. Conditional statements of deontic necessity can be thought of as the ‘second best’ option, a deontic back-up plan. If we have the semantics of modals right, we should be able to predict in which circumstances such back-up plans are put into action. *Contrary to duty imperative* conditionals (CTDs), in which the antecedent is incompatible with the laws, have complex detachment properties (*Chisholm's Paradox* [3]). Chisholm's paradox is often solved with dyadic operators for which truth does not lead to detachment [1, 6, 12]. But if so, CTDs do not really function as deontic back-ups [1]: they do not let circumstances lead us to unconditional obligations. This paper investigates detachment in deontic *should* conditionals: §2. Detachment options with Kratzer (1995) [K]; §3. *Should vs. should have*; §4. A semantics for *should* that preserves consistency yet allows detachment. (*should* = necessity, but see [5])

**2. Kratzer (1995):** [K]’s influential theory sets up the semantics of plain and conditional statements of deontic necessity on the basis of a system of preferences with two dimensions:

(1)  $[[\text{should } \alpha]]^{f,g}$  is true in  $w_i$  iff for all  $w_j \in \cap f(w_i)$  there is a  $w_k \in \cap f(w_i)$  s.t.  $w_k \ll_{g(w_i)} w_j$  and for all  $w_l \in \cap f(w_i)$ : if  $w_l \ll_{g(w_i)} w_k$ , then  $w_l \in \alpha$ . ( $\ll_{g(w_i)}$  = ‘is as close to the  $g(w_i)$  ideal as’)

(2)  $[[\text{if } \alpha \text{ should } \beta]]^{f,g} = [[\text{should } \beta]]^{f',g}$ , where for all  $w \in W$ ,  $f'(w) = f(w) \cup \{[\alpha]\}^{f,g}$

(1) and (2) are general proposals for all necessity modals. The deontic flavor of modality is brought out by the choice of conversational backgrounds. [K] proposes that for (at least some) deontic modality, the modal base ( $f$ ) is empty and the ordering source ( $g$ ) is provided by the laws. ‘*should*  $\alpha$ ’ is true iff  $\alpha$  is true in the most lawlike worlds. ‘*if*  $\alpha$  *should*  $\beta$ ’ is true iff  $\beta$  is true in the most lawlike worlds in which  $\alpha$  is true. This modality does not predict detachment to be valid (from *if*  $\alpha$ , *should*  $\beta$  and  $\alpha$  we cannot infer *should*  $\beta$ ). **Case study: moral obligation (MO).** [6] analyzes MO as quantification over the best possible worlds accessible to the agent at a time, and points out that truth does not bring about detachment: *It is Monday, and the best treatment for the patient would be to give him medicine A on Thursday, however, if the patient is given B on Tuesday, he should be given B on Thursday. As a matter of fact, the doctor will give B on Tuesday. However, on Monday, the doctor has the moral obligation to give A on Thursday.* This is predicted by [K] above: the Monday evaluation of *The doctor should give A on Thursday* is not sensitive to the fact that he gives B on Tuesday. However: on Wednesday, we would want to claim that the doctor should give B on Thursday. Could [K] explain this? First, note that it is not really time that matters [6]: detachment can be obtained with states (no passage of time): *There should be no fence, If there is a fence, it should be white, There is a fence*; and with reversed temporal order: *You should spare the witness, If you execute the witness, you should offer him a cigarette before, You execute the witness.* Rather, MO seems to track the ‘inevitability’ of the antecedent (for the agent, past propositions are inevitable). As time passes, the antecedent becomes true in the best worlds the agent can bring about. In a sense, time triggers deontic detachment (DD) ([6]’s semantics for MO validates DD, and DD is also valid in [K]). [K] can predict the right detachment patterns for MO-*should* with (2) and (3) if the modal base is the set of propositions whose truth does not depend on the actions of the agent and the laws identify the best options. Then: on Monday, *The doctor should give B on Thursday*; and on Wednesday, *The doctor should give B on Thursday (and not A: there is no inconsistency).*

**3. Should vs. should have.** To some extent, correct detachment patterns can be made to follow from a theory of the presuppositions of the embedded clause, and need not depend on the meaning of *should*. It is Tuesday, and her library book is due on Saturday. We say: *She should*

*return the book on time.* On Sunday, we'll say: *She should have returned the book on time.* Here, *have* does not mark pastness. Suppose she is required to return the book next Sunday, and she did it yesterday. It is future, but we say: *She should have returned the book on Sunday.* (I will also show this is not past obligation, see [4]). Following [1], (but cf. [7]/[10]), I argue that clauses with simple *should* differ from *should have* in that default perfective aspect presupposes that the embedded proposition is true only in worlds compatible with what is known about the actual world. Perfect aspect (*should have*) fails to carry such presupposition. If presuppositions of the embedded clause put restrictions on the modal base ([8]), [K] predicts that *If she returns the book late, she should pay a fine* will lead to the truth of *she should pay a fine* if we know that she returned the book late: she pays a fine in the best worlds compatible with what we know. With simple *should* cases, the presuppositions of embedded perfective aspect predict factual sensitivity. It need not be separately encoded in the meaning of *should*.

**4. Should.** In general, however, detachment cannot depend on the presuppositions of perfective aspect: A: *She should have returned her library book on time, and if she had returned her library book late, she should have paid a fine.* B: *But she returned her library book late and she didn't pay a fine!* A: *Well, she should have returned the book on time and she should have paid a fine.* We can formulate a semantics for *should* that is sensitive to facts and allow for detachment without predicting inconsistency by going below the world level and considering parts of worlds. I will make use of the situation framework in [11] (see also [9]), with some auxiliary notions: (i) a proposition  $\alpha$  is *compatible* with a situation  $s_i$  iff there is some  $s_j$  such that  $s_i \leq s_j$  and  $\alpha(s_j) = 1$ ; (ii)  $s$  is a modal part ( $\leq_m$ ) of  $s_i$  iff  $s$  has a counterpart  $s_j$  such that  $s_j \leq s_i$  ( $\leq =$  mereological part of); (iii)  $s_j$  is a *most lawful extension* of  $s$  iff  $s \leq_m s_j$ , and there is no situation  $s_1$  such that  $s \leq_m s_1$  and  $s_1$  approaches the law-like ideal more closely than  $s_j$ . Then:

(3)  $[[\text{should } \alpha]]$  is true in  $w$  iff  $\forall s \leq w$  that are  $\alpha$ -compatible,  $\exists s_i: s \leq s_i$  and  $\forall s_j$  that are a most lawful extension of  $s_i$ ,  $\alpha(s_j) = 1$  or  $\exists s_k: s_j \leq_m s_k$  and  $s_k$  is a most lawful extension of  $s_i$  and  $\alpha(s_k) = 1$   
(4)  $[[\text{if } \alpha \text{ should } \beta]]$  is true in  $w$  iff  $\forall s \leq w$  that are  $\alpha$ -compatible,  $\exists s_i: s \leq s_i$  and  $\forall s_k: s_i \leq_m s_k$  and  $\alpha(s_k) = 1$ ,  $\forall s_j$  that are a most lawful extensions of  $s_k$ ,  $\beta(s_j) = 1$  or  $\exists s_1$  such that  $s_j \leq_m s_1$  and  $s_1$  is a most lawful extension of  $s_k$  and  $\beta(s_1) = 1$ .

**Discussion.** Together, (3) and (4) predict detachment: if she returned the library book late in  $w$ , then for every situation in  $w$  there is an extension  $s_i$  (compatible with her paying a fine) such that in the most lawful extensions of  $s_i$ , she pays a fine. So, *she should have paid a fine.* But (3) also predicts 'absolute' obligation: even if she returned the book late, for every situation in  $w$  (compatible with her returning the book on time) there is an extension  $s_i$  such that in its most lawful extensions she returns the book on time. So, *she should have returned the book on time.* Given the existential quantifier in the semantics of *should*, no inconsistency arises. (This proposal links the truth of *should*-statements in a world to the existence of a situation compatible with the obligation). (3)/ (4) do not lead to mistaken predictions with 'MO examples': the presuppositions of perfective aspect require that the embedded clause be true only in situations in which what we know is true: if we know she returned the book late, (3) does not predict that she should do it on time. For that to be true, it would have to be the case that for every situation in the actual world compatible with her returning the book on time there would be a situation such that in its most lawlike extensions everything we know about the actual world is true and she returns the book on time. But this is impossible if we know that she returned the book late.

[1] Aqvist 2002; [2] Arregui 2007; [3] Chisholm 1963; [4] Condoravdi 2002; [5] Copley 2005, Iatridou & von Stechow 2006; [6] Feldman 1986; [7] Haquard 2006; [8] Heim 1992; [9] Heim 1990, von Stechow 1994, 1995; [10] Ippolito 2003, 2006; [11] Kratzer 1990; [12] Prakke & Sergot 1994, Carmo & Jones 2002.