Cause of Action and the Right to Know
A Formal Conceptual Analysis of the Texas Senate Bill 25 Case

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Senate Bill 25 in Texas, 2017

• to eliminate the wrongful birth cause of action
Senate Bill 25 in Texas, 2017

• to eliminate the wrongful birth cause of action

**wrongful birth**

*noun*

doctor having failed to warn the expectant parents that the fetus is seriously ill
Senate Bill 25 in Texas, 2017

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doctor having failed to warn the expectant parents that the fetus is seriously ill

• it didn’t pass, but generated international media attention
Why critics say a Texas bill lets anti-abortion doctors lie to pregnant women
While the public debate surrounding Texas Senate Bill 25 was framed, predominantly, in terms of the language and rhetoric of the pro-life/pro-choice debate, the issue at the heart of the controversy is ultimately one of epistemic rights. Those opposing the bill argued that it would allow doctors to withhold information, or lie to, expectant parents about the health of an unborn fetus. The implicit assumption is that doing so would constitute some kind of harm or wrong.

In the context of prenatal healthcare provision, expectant parents have a right to know certain facts about the health of an unborn fetus. By withholding, distorting, or failing to provide these facts, a doctor is unjustifiably disregarding her epistemic duty and so violating the parents’ right to know.
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if there is no wrongful birth cause of action, the parents have no right to know
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What is the logical form of the parents’ right to know?
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What is the logical form of the cause of action?

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What is the logical form of the parents’ right to know?

What is the logical form of the cause of action?
What is its relevance for the relation between a power and a claim-right in the theory of normative position?
Language and Semantics

\[ p \in \Phi \mid \varphi \land \psi \mid \neg \varphi \mid K_a \varphi \mid O_{a \rightarrow b}(\varphi/\psi) \mid E_a \varphi \mid \Box \varphi \]

\[ \mathcal{F} = \langle W, \{R_a, \leq_{a \rightarrow b}, f_a\}_{a,b \in A}, R_{\Box} \rangle \]

- \( \mathcal{M}, w \models E_a \varphi \iff \| \varphi \| \in f_a(w) \).
- \( \mathcal{M}, w \models \Box \varphi \iff \forall v \text{ such that } wR_{\Box} v, \mathcal{M}, v \models \varphi \)
- \( \mathcal{M}, w \models K_a \varphi \iff \forall v \text{ such that } wR_a v, \mathcal{M}, v \models \varphi \)
- \( \mathcal{M}, w \models O_{a \rightarrow b}(\varphi/\psi) \iff \forall v \in \text{max}_{\leq_{a \rightarrow b}}(\| \psi \| \cap R_{\Box}[w]), \mathcal{M}, v \models \varphi \)

where, for any \( X \subseteq W, \text{max}_{\leq_{a \rightarrow b}}(X) = \{w \in X : \neg \exists v \in X \text{ such that } w <_{a \rightarrow b} v\} \).
Language and Semantics

$p \in \Phi \mid \varphi \land \psi \mid \neg \varphi \mid K_a \varphi \mid O_{a \rightarrow b}(\varphi/\psi) \mid E_a \varphi \mid \Box \varphi$

legally settled

$\mathfrak{F} = \langle W, \{R_a, \leq_{a \rightarrow b}, f_a\}_{a, b \in A}, R_\Box \rangle$

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- $M, w \models \Box \varphi \iff \forall v \text{ such that } wR_\Box v, M, v \models \varphi$
- $M, w \models K_a \varphi \iff \forall v \text{ such that } wR_a v, M, v \models \varphi$
- $M, w \models O_{a \rightarrow b}(\varphi/\psi) \iff \forall v \in \text{max}_{\leq_{a \rightarrow b}} (\| \psi \| \cap R_\Box [w]), M, v \models \varphi$

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Parents’ Right to Know: Doctor’s Duty

\[ O_{d \rightarrow p} [E_d (K_p (ill)) \lor E_d (K_p (\neg ill))] \]
Parents’ Right to Know: Doctor’s Duty

\[ O_{d \rightarrow p}[E_d(K_p(ill)) \lor E_d(K_p(\neg ill))] \]

\[ O_{d \rightarrow p}(E_dK_p(ill)/K_d(ill)) \land O_{d \rightarrow p}(E_dK_p(\neg ill)/K_d(\neg ill)) \]
Parents’ Right to Know: Doctor’s Duty

\[ \text{detachment of the undconditional duty only if } \Box \neg \text{ill} \]

\[ O_{d \rightarrow p} \left( E_d K_p(\text{ill}) / K_d(\text{ill}) \right) \land O_{d \rightarrow p} \left( E_d K_p(\neg \text{ill}) / K_d(\neg \text{ill}) \right) \]
Parents’ Right to Know: Doctor’s Duty

$$O_{d \rightarrow p}[E_d(K_p(ill)) \lor E_d(K_p(\neg ill))]$$

$$\Box \neg ill \land O_{d \rightarrow p}[E_d(K_p(ill)) \lor E_d(K_p(\neg ill))] \rightarrow O_{d \rightarrow p}E_d(K_p(ill))$$

detachment of the unconditional duty only if $$\Box \neg ill$$

$$O_{d \rightarrow p}(E_dK_p(ill)/K_d(ill)) \land O_{d \rightarrow p}(E_dK_p(\neg ill)/K_d(\neg ill))$$
Parents’ Right to Know: Doctor’s Duty

\[ \text{Parents' Right to Know: Doctor's Duty} \]

\[ \square \text{ill} \land O_d \rightarrow_p [E_d (K_p (\text{ill})) \lor E_d (K_p (\neg \text{ill}))] \rightarrow O_d \rightarrow_p E_d (K_p (\text{ill})) \]

detachment of the unconditional duty only if \( \square \text{ill} \)

\[ O_d \rightarrow_p (E_d K_p (\text{ill})/K_d (\text{ill})) \land O_d \rightarrow_p (E_d K_p (\neg \text{ill})/K_d (\neg \text{ill})) \]

What makes ‘ill’ legally settled?
Parents’ Right to Know: Doctor’s Duty

\[ O_{d \rightarrow p} [E_d (K_p(ill)) \lor E_d (K_p(\neg ill))] \]

\[ \square ill \land O_{d \rightarrow p} [E_d (K_p(ill)) \lor E_d (K_p(\neg ill))] \rightarrow O_{d \rightarrow p} E_d (K_p(ill)) \]

detachment of the unconditional duty only if \( \square ill \)

\[ O_{d \rightarrow p} (E_d K_p(ill)/K_d(ill)) \land O_{d \rightarrow p} (E_d K_p(\neg ill)/K_d(\neg ill)) \]

What makes ‘ill’ legally settled? doctor’s diagnosis
Parents’ Right to Know: Doctor’s Duty

\[ O_{d \rightarrow p} [ E_{d} (K_{p}(ill)) \lor E_{d} (K_{p}(\neg ill)) ] \]

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detachment of the unconditional duty only if \( \square ill \)

\[ O_{d \rightarrow p} (E_{d} K_{p}(ill)/K_{d}(ill)) \land O_{d \rightarrow p} (E_{d} K_{p}(\neg ill)/K_{d}(\neg ill)) \]

What makes ‘ill’ legally settled?

doctor’s diagnosis

(difference from doctor knowing?)
Parents’ Right to Know: Doctor’s Duty

static vs dynamic modalities
Parents’ Right to Know: Doctor’s Duty

static vs dynamic modalities

Réka Markovich and Olivier Roy: “Formalizing the Right to Know – Epistemic Rights as Normative Positions”
In: Logics for New-Generation AI Proceedings, Beishui Liao, Jieting Luo, Leon van der Torre (eds.) College Publications 2021, pp. 154-158.
Cause of Action

helps understand the connection between the levels of rights
Claim-right and Power
Claim-right and Power

Makinson (1986)

x bears an obligation to y that F under the system N of norms
iff
in the case that F is not true then y has the power under the code N
to initiate legal action against x for non-fulfilment of F
Claim-right and Power

Makinson (1986)

\[ x \text{ bears an obligation to } y \text{ that } F \text{ under the system } N \text{ of norms} \]

\[ \text{iff} \]

in the case that \( F \) is not true then \( y \) has the power under the code \( N \)

to initiate legal action against \( x \) for non-fulfilment of \( F \)

\[ \leftrightarrow \text{ direction doesn’t work} \]
Claim-right and Power

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⇐ direction doesn’t work

Markovich (2019)

power shouldn’t be in the definition of claim-right
Claim-right and Power

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← direction doesn’t work

Markovich (2019)

power shouldn’t be in the definition of claim-right

What is the connection between claim-right and power?
power to initiate a legal action: initiating a legal action puts a duty on someone
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when initiating a legal action, we don’t use a power to put a duty on the judge to enforce
power to initiate a legal action: initiating a legal action puts a duty on someone when initiating a legal action, we don’t use a power to put a duty on the judge to enforce for that she needs to see it proved that the defendant did what the plaintiff claims
power to initiate a legal action: initiating a legal action puts a duty on someone

when initiating a legal action, we don’t use a power to put a duty on the judge to enforce

for that she needs to see it proved that the defendant did what the plaintiff claims

the factual part is what is the Cause of Action
Claim-right and Power

power to initiate a legal action: initiating a legal action puts a duty on someone

when initiating a legal action, we don’t use a power to put a duty on the judge to enforce for that she needs to see it proved that the defendant did what the plaintiff claims

the factual part is what is the Cause of Action

when initiating a legal action, we use a power to put a duty on the judge to decide:
power to initiate a legal action: initiating a legal action puts a duty on someone

when initiating a legal action, we don’t use a power to put a duty on the judge to enforce for that she needs to see it proved that the defendant did what the plaintiff claims

the factual part is what is the Cause of Action

when initiating a legal action, we use a power to put a duty on the judge to decide: to either settle that it happened or to settle that she doesn’t settle that it happened
Claim-right and Power

\[ \Diamond E_p(O_j \rightarrow_p (E_j(\square \neg E_d(KW_p(ill)))) \lor E_j(\square (\Diamond E_d(KW_p(ill)) \land \Diamond \neg E_d (KW_p(ill)))))) \]
Claim-right and Power

\[ \diamond E_p(O_{j \rightarrow p}(E_j(\square \neg E_d(KW_p(ill)))) \lor E_j(\square(\diamond E_d(KW_p(ill)) \land \diamond \neg E_d(KW_p(ill)))))) \]

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- **Cause of Action**
  - settled that it happened
  - settled that it is not settled whether it happened
Claim-right and Power

\[ \Diamond E_p(O_{j \rightarrow p}(E_j(\Box \neg E_d(KW_p(ill)))) \lor E_j(\Box(\Diamond E_d(KW_p(ill)) \land \Diamond \neg E_d(KW_p(ill)))))) \]

- **power**
- **Cause of Action**
  - settled that it happened
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Claim-right and Power

$$O_{d \rightarrow p}(E_{d} K_{p}(\pm ill)/K_{d} \pm ill) \rightarrow$$

$$\lozenge E_{p}(O_{j \rightarrow p}(E_{j}(\Box \neg E_{d}(KW_{p}(ill)))) \lor E_{j}(\Box(\lozenge E_{d}(KW_{p}(ill)) \land \lozenge \neg E_{d}(KW_{p}(ill))))$$

- **power**
- **Cause of Action**

settled that it happened

settled that it is not settled whether it happened
Open questions, further work

- doctor’s duty to know about the illness
- axiomatization
- studying the differences of the logical behavior of the different formalizations
- studying the consequences of using dynamic operators to capture power and “informing” in the (claim-)right to know
- and, of course, using other theories of conditional obligations e.g. defeasible deontic logic or input/output logics