Formalising Taboo as a Prohibition on Informing

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1. Summary
Formalisation of taboo

It is prohibited to speak about X. Although X may be permitted.
2. Multiple meanings of the word ‘taboo’
‘Taboo’ is a metaphor in sociology

• Two directions: (1) sacred, (2) danger (Steiner 1956)
  – Ritual regulation of …
  – “forbidden or sacred based on religious beliefs or morals.”
    http://examples.yourdictionary.com/examples-of-taboo.html
• “forbid” http://legal-dictionary.thefreedictionary.com/taboo
• “The prohibition of an action based on the belief that such behaviour is either too sacred and consecrated or too dangerous and accursed for ordinary individuals to undertake.”
  https://www.britannica.com/topic/taboo-sociology
• “redefined to suit the thought systems of the users”
Fairy tale *The Emperor’s New Clothes*

by Hans Christian Andersen

A taboo on the mention that the Emperor is naked.

1. Two weavers promise an emperor a new suit of clothes that they say is invisible to those who are unfit for their positions, stupid, or incompetent.

2. When the Emperor parades..., no one dares to say that they don’t see any suit of clothes on him for fear that they will be seen as “unfit for their positions, stupid, or incompetent”.

3. Finally, a child cries out, “But he isn’t wearing anything at all!”

[https://en.wikipedia.org/wiki/The_Emperor%27s_New_Clothes](https://en.wikipedia.org/wiki/The_Emperor%27s_New_Clothes)
Formalising

• \textit{Norm( "It is prohibited to speak that the Emperor isn’t wearing anything at all" )}
  – \textit{Norm( \neg Inf( ‘The Emperor is naked’ ) )} or
  – \textit{Norm( \neg Inf( ‘The Emperor is wearing new clothes’ is fake ) )}

• Pluralistic ignorance
  – No one believes, but everyone thinks that everyone else believes
  – Social phenomenon
    • Social psychology (Centola et al. 2005, The Emperor’s dilemma)
    • Modal logic (Hansen 2011). Public announcements affect the beliefs of agents
Examples

• Questions in the classroom.
  – $\text{Norm}( \neg \text{Inf(‘Student X has questions’)} )$
  1. After having presented the students with difficult material, the teacher asks them whether they have any questions.
  2. Even though most students do not understand the material they may not ask any questions.
  3. All the students interpret the lack of questions... as a sign that they understood the material, and to avoid being publicly displayed as the stupid one, they dare not ask questions themselves. (Hansen 2011)

• Prestigious scholars. Proclaimed as having brilliant ideas, yet privately, people find the work entirely incomprehensible (Centola et al. 2005)
  – $\text{Norm}( \neg \text{Inf(‘Scholar ABC is prestigious’)} )$
Is a prohibition to speak evaluated positively or negatively?

• Three cases:
  1. Negatively: informing a bandit
  2. Negatively: informing an abusive government
  3. Positively: informing a just government
     “No prohibition to inform when government is just” (Broyde 2002), http://www.jlaw.com/Articles/mesiralaw2.html
     • “All that is necessary for the triumph of evil is that good men do nothing.” (Edmund Burke)

• Social reasons for taboos
  – Norms
    • Morality, religion, law, soiree…
  – Out of scope in this presentation
3. Formalising
Taboo on $X$ means a prohibition to speak

- It is **prohibited** to **speak** about $X$
- Although $X$ may be **permitted**
  - In a party, it is **prohibited** to **speak** about money.
  - Although it is **permitted** to **have** money.
    - $\text{Norm}(\neg \text{Inf(money)} )$
    - Although $P(\text{Have(money)} )$
- The act of informing, $\text{Inf}$, can be compared with $\text{Driving}$ without license
  - It is **prohibited** to **drive** a car without licence.
  - Although it is **permitted** to **own** a car.
    - $\text{Norm}(\neg \text{Driving(car)} )$
    - However, $P(\text{Have(car)} )$
Primitive taboo

• Let us denote by $\text{Inf} (X)$
  – that information about $X$ exists
    (in the Is world, e.g. a model or a database)
  – or the act of informing about $X$

• Taboo as a norm
  (prohibition to inform about $X$):

\[ \text{Taboo}(X) \overset{\text{def}}{=} \text{Norm} ( \neg \text{Inf} (X) ) \]
Relations between norm and the normative status of the duty

- $N(X)$ means a commandment to do $X$.
- $N(\neg X)$ means a prohibition of doing $X$.

Then:

$N(X) \implies O(X)$

From commandment an obligatory duty arises

$N(\neg X) \implies O(\neg X)$

From prohibition a prohibitive duty arises

(Lachmayer 1977)
Deontic logic

• In deontic logic, $F(X)$ means “it is forbidden that $X$”.
• $O(X)$ means obligatoriness of $X$
• $P(X)$ means permissibility of $X$
• The prohibition $F(X)$ can be defined as
  \[ F(X) = O(\neg X) \] (obligatory to omit $X$, i.e. it is obligatory not doing $X$)
  or \[ F(X) = \neg (P(X)) \] (no permission to do $X$)
Meta-taboo on $X$

- A **prohibition** to inform that there is a norm that **prohibits** speaking about $X$:

$$\text{Norm} \left( \neg \text{Inf} \left( N(\neg \text{Inf}(X)) \right) \right)$$

(Additional prohibition strengthens primitive taboo)

- “A taboo on the mention of taboo”
  (Attridge 2014)
4. Terminological framework
Basic elements

• **Facts** – statements with true content
  ‘The emperor is naked’

• **Fakes** – statements with false content
  ‘The emperor is wearing new clothes’

• The reference area of sentences (formulae) comprises more entities
  – **Meaning**
  – Relations: **Causality, Telos, Equality, Transformation**
1. $N^1(FC)$. Commandment to set a fact $FC$.  
   E.g., $N(\text{door\_closed})$, i.e. commandment to set the door closed.

2. $N^1(\neg FC)$. Prohibition of a fact $FC$.  
   E.g., $N(\neg \text{door\_closed})$, i.e. prohibition to set the door closed.

   E.g., a community of liars

   Normal case, i.e. fake facts are prohibited.

5. $\neg N^1(FC)$. Absence of any norm about fact.  
   Weakly implies a norm about fake.
• **Info 1.** Informing that $FC$ exists as a fact or $FK$ exists as a fake

• **Norms 2.** Primary taboos, $N^2(\neg\text{Inf}^1(FK))$, i.e. prohibitions to inform that $FK$ is a fake
  – They secure fakes
• **Info 2.** Informs about primitive taboos
  – $\text{Inf}^2(N^2(\neg\text{Inf}^1(\text{FK})))$ means an act of informing that a prohibition $N^2$ exists against informing $\text{Inf}^1$ that a fake FK exists
• **Norms 3.** Meta-taboos, $N^3(\neg\text{Inf}^2(\bullet))$
  – prohibition $N^3$ of informing $\text{Inf}^2$ about anything
5. Taboo on a causality

\[ A \xrightarrow{c} E \]
Taboo on a combination of 3 elements of a causal relation

• Different meanings

• Original: $\textit{Taboo}(A \xrightarrow{c} E)$, a prohibition to inform that $A$ causes $E$
  
  1. $\textit{Taboo}(A)$, prohibition to inform about the fact $A$
  2. $\textit{Taboo}(E)$, prohibition to inform about the effect $E$
  3. $\textit{Taboo}(\xrightarrow{c})$, prohibition to inform about the causality $\xrightarrow{c}$ (its intensional description)

• Camouflage: a fake official version that $A \xrightarrow{c} E$ is accidental or a correlation
  
  – The causality $\xrightarrow{c}$ is a mystery of faith ($\textit{mysterium fidei}$)
1. $A^-$ and $E^-$ are evaluated negatively
2. Therefore the official version is announced that $B^+$ (evaluated positively) causes $E^-$
3. Camouflage: $B^+ \rightarrow^{te} G^+$
   ($B^+$ serves a good goal $G^+$ which outweighs $E^-$)
6. Pluralistic ignorance
Pluralistic ignorance

• No one believes, but everyone thinks that everyone else believes
• Social psychology
• The phenomenon where a group of people shares a false belief about the beliefs, norms, actions or thoughts of the other group members
Examples of compliance with privately unpopular norms

1. The exposure of the “politically incorrect” by the righteously indignant who thereby affirm their own moral integrity

2. Gossiping about a social faux pas by snobs anxious to affirm their own cultural sophistication

3. Public adoration of a bully by fearful schoolboys who do not want to become the next victim

4. “Luxury fever” (Frank 2000) among status seekers who purchase $50 cigars, $17,000 wristwatches, and $3 million bras, in an arms race of conspicuous consumption and one-upmanship that leaves the contestants no happier but perhaps a bit less affluent. (Centola et al. 2005)
7. Conclusions

• Terms are made explicit
  – Ontology of law

• Is the presentation relevant to computing?
  – Legal informatics
  – Science of law – jurisprudence
Thank you

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http://jusletter-it.weblaw.ch/visualisierung/