

Logical normativity in communication ethics

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The language as a normative source can be viewed from two perspectives. On the one side, there are regulative requirements like sincerity and trust. In particular the explicit pronunciation of the requirement of non-deceptive use of language is likely to be found in any system of general ethics. On the other side, there are more specific, discourse dependent, constitutive requirements of coherence that arise from the logical nature of language. E.g. the two speech acts, one of which is insincere for not expressing speaker's intentional state while the other is incoherent for refusing entailments of speaker's previous discourse, both can have the same deontic status of being forbidden. Nevertheless the origin of their deontic status is not the same: the source of regulative requirements, such as non-deceptiveness, comes from the purpose of language to enable reaching understanding while the source of constitutive requirements, such as coherence, lies in the nature of language—in its logical structure. The difference of origins is revealed by the effects of requirement violation. The violation of the first type of language-use requirements changes the character of communication, e.g. from cooperative to non-cooperative communication. The violation of the second type of language use requirements destroys communication: language-mediated interaction ceases to be possible.

For the description of the diverse character of language requirements one needs: (i) a discriminative ontology suitable for (ii) a comprehensive theory on relations between language and types of worlds together with (iii) an expressively rich formal language adequate for the theory. A discriminative ontology has been given in [3] and it can be briefly summarized as in Table 1.

Objective world	Social world	Subjective world
physical facts	norms	mental facts
<i>external world</i>		<i>internal world</i>

Table 1: Habermas [3] ontology.

It has been claimed [5] that there are four main language-world relations: (i) with respect to objective world there is the relation of representation, (ii) with respect to subjective worlds there is the relation of expression of the speaker's intentional state and the relation of alteration of intentional state of the hearer, (iii) with respect to social world there is the relation of assigning deontic status to acts, e.g. by norm promulgation or by requesting, and the relation of modification of linguistic commitments by language use. The relations are depicted in Figure 1

The formal language of dynamic epistemic logic by van Benthem and others, systematically investigated in [4], can be applied for the description of diversity of language-based relations. For the purpose of defining the syntax of a

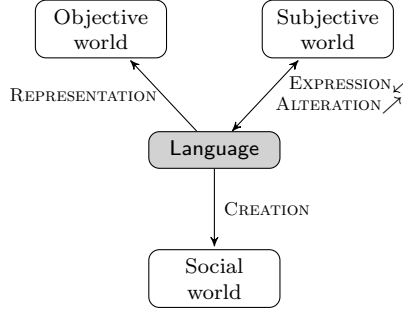


Figure 1: Diversity of language relations.

simplified formal language let us adopt the following notational conventions: i, j, \dots for actors from a communication group; p, q, \dots for propositional letters; $\otimes_i \in \{B_i, D_i\}$ for generic intentionality operator that stands in place of ‘i believes that ...’ and ‘i desires that ...’; $i \text{ stit}:$ for modal operator of action ‘i sees to it that ...’; $\odot_i \in \{P_i, F_i, O_i\}$ for generic deontic operator that stands in place of ‘it is permitted for i that ...’, ‘it is forbidden for i that ...’ and ‘it is obligatory for i that ...’.

$$\begin{array}{ll}
\mathcal{L}_{\text{reality}} & \varphi ::= p \mid \otimes_i \varphi \mid i \text{ stit} : \varphi \mid \odot_i \varphi \mid \neg \varphi \mid (\varphi \wedge \varphi) \mid \chi \\
\mathcal{L}_{\text{utterance}} & \xi ::= !i \text{ stit} : \varphi \mid \cdot \varphi \mid !i \text{ stit} : \varphi \rightarrow \cdot \varphi \\
\mathcal{L}_{\text{locution}} & \chi ::= i : \underline{\xi} \\
\mathcal{L}_{\text{effect}} & \epsilon ::= \varphi \mid [\chi] \epsilon \mid \neg \epsilon \mid (\epsilon \wedge \epsilon)
\end{array}$$

The typical sentential form $[\chi] \varphi \in \mathcal{L}_{\text{effect}}$ describes an effect of a locution χ in terms of description $\varphi \in \mathcal{L}_{\text{reality}}$ of resulting states in subjective worlds and in the social world. For example, the social effect of imperative locution can be described by the formula

$$[i : !j \text{ stit} : \varphi] O_i (j \text{ stit} : \varphi \vee j : \neg j \text{ stit} : \varphi) \quad (1)$$

which states that when i asks of j to see to it that φ an obligation is created for j either to perform the requested act or to announce refusal. The expressive relation can be captured by the formula which shows that in any case after i utters imperative to the effect that j sees to it that φ no new information will be added if i further says that she desires that j sees to it that φ :

$$[i : !j \text{ stit} : \varphi] \psi \leftrightarrow [i : !j \text{ stit} : \varphi] [i : D_i j \text{ stit} : \varphi] \psi \quad \text{for any } \psi \in \mathcal{L}_{\text{reality}} \quad (2)$$

From a logical point of view, the generation of the speaker’s linguistic commitments by her own discourse (sequence of locutions) is a most interesting phenomenon in communication ethics. Linguistic commitments of a monologic discourse mirror logical relations between performed and unperformed utterances. We propose the following definition: actor i is committed to ξ_n after i ’s discourse $\xi_0 \dots \xi_{n-1}$ iff $([i : \xi_0] \dots [i : \xi_{n-1}] P_i i : \xi_n)$, and $[i : \xi_0] \dots [i : \xi_{n-1}] F_i i : \xi'$ for all utterances ξ' such that ξ_n and ξ' are incompatible, and $[i : \xi_0] \dots [i : \xi_{n-1}] O_i (\chi \rightarrow i : \xi_n)$ for some locution χ .

The distinction between regulative and constitutive requirements in communication ethics can be expressed in the formal language $\mathcal{L}_{\text{effect}}$ as a difference in

their effects. E.g. Grice's maxim of quality [2] *Don't say what you believe to be false* is a regulative requirement which translates to (3) and whose violation is communicatively coherent (4).

$$B_i \neg \varphi \rightarrow \mathbf{F}_i \underline{i:\varphi} \quad (3)$$

$$B_i \neg \varphi \wedge \neg [i:\varphi] \perp \quad (4)$$

On the other hand, the deontic reading of Moore-type sentence *Don't deny the sincerity conditions of your speech-acts* yields a constitutive requirement. Formula (5) shows one among many linguistic commitments created by the assertive locution. Proposition (6) shows communicative incoherence of the denial of sincerity conditions of an assertion. Proposition (7) gives a general form for any locution type where function Ψ delivers sincerity conditions for an utterance.

$$[i:\varphi] \mathbf{F}_i \underline{i:B_i \neg \varphi} \quad (5)$$

$$[i:\varphi] [i:\underline{i:B_i \neg \varphi}] \perp \quad (6)$$

$$\text{If } \otimes_i \varphi \in \Psi(\xi), \text{ then } [i:\xi] \mathbf{F}_i \underline{i:\neg \otimes_i \varphi}. \quad (7)$$

If Broome's [1] theory of requirements is applied to communication ethics, language turns out to be a normative source. If viewed in this manner, it exhibits an unique trait. For other normative sources it is possible that their codes (sets of requirements) violate the logic of language in which they are expressed. This kind of imperfection is not possible in the code of language-use. Logical requirements or linguistic commitments are constitutive requirements and they mirror the logical structure of language. Therefore, language user has no option but to satisfy her linguistic commitments. We either comply with the logical requirements of communication ethics or we fail in our attempt to use the language.

References

- [1] John Broome. *Rationality Through Reasoning*. The Blackwell / Brown Lectures in Philosophy. Wiley-Blackwell, 2013.
- [2] Paul Grice. *Studies in the Way of Words*. Harvard University Press, 1991.
- [3] Jürgen Habermas. *The Theory of Communicative Action: Reason and the Rationalization of Society*. Beacon Press, Boston, 1984 [1981].
- [4] Johan van Benthem. *Logical Dynamics of Information and Interaction*. Cambridge University Press, 2011.
- [5] Berislav Žarnić. Logical root of linguistic commitments. In Anna Brożek, Jacek Jadacki, and Berislav Žarnić, editors, *Theory of Imperatives from Different Points of View, vol. 2*, pp. 7–25. Wydawnictwo Naukowe Semper, Warsaw, 2011.