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SOME PRELIMINARIES ON *ASSERTION* AND *DENIAL*

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This special issue collects a selection of papers presented at the International Workshop *How to Say 'Yes' or 'No': Logical Approaches to Modes of Assertion and Denial* organized by Massimiliano Carrara (University of Padua), Daniele Chiffi (Tallinn University of Technology), Ciro De Florio (Catholic University of Milan) and Caterina Annese (*ZEI*, *Filosofia in 3/4*, Lecce) and hosted by University of Salento in Lecce (Italy).[1]

Assertion and denial are exemplar cases of illocutionary acts. And it is difficult to overestimate the importance of their logical treatment. First, consider *assertion*. Starting from Frege, assertive formulas express the acknowledgement of the truth of their content and play a significant role in the justification of logical inferences. Logical formulas expressing assertions are composed by the assertion sign ($\vdash$) and its content (Frege 1879). From a Fregean point of view the same content can be asserted or unasserted, and yet be recognizable as the same thought. This is what Geach in (1965) called *Frege's point*. The same Fregean distinction is also at the basis of the Russellian *Embedding problem*, and its contemporary metaethical variant, the *Frege-Geach problem*. Russell observed that there is something odd in the justification of *modus ponens*: "the proposition '*p implies q*' asserts an implication, though it does not assert *p* or *q*. The *p* and the *q* entering into this proposition are not strictly the same as the *p* or the *q*, which are separate propositions" (Russell 1903, p. 35). Logical extensions of Frege's view can be found in Reichenbach (1947). Moreover, Frege's account of assertion was the starting point of Austin's proposal (1962) on illocutionary acts in philosophy of language and, in general, of Dummett's views on philosophy of logic and language.[2] A more contextual

[1] The workshop was on January 21 and 22, 2016. A book of abstracts of the workshop is available (*How to Say 'Yes' or 'No': Logical Approaches to Modes of Assertion and Denial*. Lulu Press, Raleigh, 2016, ISBN: 978-1-326-51692-5) and can be freely downloaded via Academia and Lulu. It is also available on the workshop webpage: https://sites.google.com/site/howtosayyesorno/home/workshop.

[2] See, for instance, (Dummett 1981). Searle and Vanderveken's (1985) foundations of Illocutionary Logic provided one of the first attempts to formally handle illocutionary acts. On this, see also Dalla Pozza and Garola (1995) *Logic for Pragmatics*. For a fully intuitionistic

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perspective on assertion has been developed in (Stalnaker 1978), which contributed to inspiring the so-called *dynamic turn in logic*. A specific interest for assertions in philosophy of logic was also present at the origins of intuitionism with Heyting (1931), who intended assertion as the realization of an intention (in a phenomenological sense) expressed by a proposition, as well as in contemporary systems of constructive mathematics, e.g., intuitionistic type theory (Martin-Löf 1984) and Prawitz's recent work on the philosophy and foundations of constructivism (for instance see Prawitz (2009)). Finally, new works on assertion in epistemology and philosophy of language are mainly associated with the discussion on the constitutive norm(s) of assertion, inspired by Williamson's book *Knowledge and Its Limits* (Williamson 2000; on this see also Pagin 2014).

Secondly, take *denial*. Again, the contemporary discussion on the act of denial traced back its origins again to Frege (1960), who considered denial as basically equivalent to the assertion of negation. In the Fregean classical theory of denial, to deny A is equivalent to asserting ¬A:

Classical denial. A is correctly denied iff ¬A is correctly asserted.[3]

Classical denial is also assumed in bilateralist systems (see, e.g., Rumfitt 2000). On the contrary, it has been rejected in some non-classical systems. In a number of publications (one for all: Priest 2006), Graham Priest has suggested that they may do so by denying what was said. In order for this to work, asserting ¬A must not commit one to denying A, i.e. denial must not be reducible to the assertion of ¬A (Parsons 1984). Thus, glut theorists reject the right-to-left direction of *Classical Denial.* The paraconsistent denial of A is stronger than the assertion of ¬A. Unlike paraconsistent negation, which allows for overlap between truth and falsity, denial is assumed to be exclusive: assertion and denial are mutually incompatible speech acts (for an introduction to the topic, see (Ripley 2011, §3)). Moreover, if you consider constructive logical systems, it is plausible to derive the denial of A by the assertion of ¬A, but not *vice versa*. As Dummett recognized, if you take the *assertion* as the consequence of answering 'Yes' to a question and *denial* as the consequence of answering 'No' to a question (as it is done in (Rumfitt 2000)) then "it is obvious that an individual subject, when asked a question, may not be in a position to answer either 'Yes' or 'No': a space on the form must always be left for 'Don't know'" (Dummett 2002, p. 292). The analysis of this unknown 'space' between assertion and denial is one of the main red lines of the papers of the present special issue.

variant of the *logic for pragmatics*, see (Bellin, Carrara, Chiffi 2015). Another system of illocutionary logic is presented in (Kearns 2007).

[3] Ripley in (2014) calls this the *denial equivalence.*

Filip Buekens in *Saying 'Yes' and 'No' in Matters of Personal Taste* looks at the phenomenon of faultless disagreement in matters of taste. He first points out that the typical and expected reaction to a contribution like 'this is tasty' is not 'how come?' or 'how do you know that?', but one that reveals the audience's own attitude towards the issue at hand. The cooperative view of communication, developed in Tomasello (2008), is the background for an analyses of judgements of taste that recognizes three different communicative roles: they inform others, the speaker seeks alignment of an issue and – implicitly – requests the addressee to reveal her own preferences. In a dispute over what is tasty, fun, … a speaker and her audience play different games simultaneously, and the alignment game (seeking congruence over what to prefer in a given situation, with a view to further collaboration) is one of them. 'Yes' an 'no' signal alignment, c.q. a refusal to align with the other. Massimiliano Carrara, Daniele Chiffi and Ciro De Florio in their *Extending and Applying a Logic for Pragmatics* provide a sketch of three *prima facie* possible extensions of the logic for assertion settled by Dalla Pozza and Garola (1995). The first one concerns *denial* and they show how it fails. The second extension concerns hypotheses and they argue how to extend the logic of pragmatics relaxing the conditions of pragmatic justification by using a specific framework of fuzzy logic. Finally, they outline a possible extension of the above mentioned logic in a framework with epistemic and alethic modal operators. Marie Duží, in her article *Presuppositions and two kinds of negation* argues for two kinds of negation, a *narrow-scope* and a *wide-scope negation*, proving that while the former is presupposition-preserving, the latter is presupposition-denying. So this formal result shows that these two kinds of negation are not equivalent. Alessandro Giordani's paper is on *A logical theory of perspectival epistemic attitudes*. In his paper Giordani first presents a standard framework for modelling *acceptance*, then he revised it. A new logical machinery is proposed, which allows to characterize different possible attitudes towards a proposition, both positive and negative. In his *A New Argument for Distinguishing Rejection and Denial*, Tim Kraft's discusses two claims concerning epistemological debates: (1) *bipolarity*, i.e. the fact that in a debate about a certain epistemic principle a proponent asserts it and an opponent rejects it, i.e. assert its negation; and (2) *neutrality*, i.e. that opposition to an epistemic principle entails neither the truth nor the falsity of scepticism. Kraft observes that these two assumptions cannot both be true. In order to solve the puzzle Kraft proposes to give up the first principle, *bipolarity*, by distinguishing between rejection and denial. Most of Nils Kurbis' paper *Bilateralist Detours: From Intuitionist to Classical Logic and Back* scrutinizes Huw Price's bilateralist account of meaning, where meanings are specified in terms of primitive speech acts of assertion and denial. Ian Rumfitt (2000) proposes a system of natural deduction that captures Price's idea

with regard to the logical constants. In his *How to reject a counterfactual* Vittorio Morato gives a distinction between two types of rejections for counterfactuals (p-rejection and s-rejection); then, he argues that the recognition that might-not-counterfactuals may play the role of p-rejection could explain why the problematic cases should not be seen as cases where the duality of would- and might-counterfactuals does not work. Luca Tranchini and Pablo Cobreros in their paper *Proof analysis of global consequence* propose an analytic (i.e., cut-free) account of global consequence based on two ingredients: labelled sequent calculi in order to internalize the semantic features of modal logic at the syntactic level and an account of universal modality (Goranko and Passy 1992) to simulate global consequence by means of local consequence. Fabien Schang, in his *Epistemic pluralism,* develops a bilateralist logic of *acceptance* and *rejection*. The upshot of that logical framework is to emphasize some important differences among several concepts of epistemology, specifically *information* and *justification*. Moreover, different notions of disagreement among agents are developed. The result is a non-standard theory of opposition for many-valued logics. Finally, Pasi Valtonen in *The Meaning Of Absurdity* offers a Tennant-style paraconsistent view of *absurdity* in order to deal with the Carnap's problem, i.e. the existence of non-normal models violating where for any sentence A, both A and ¬A are true. Valtonen explains the reasons why a classical inferentialist may solve Carnap's problem by adhering to paraconsistency.

To sum up: In a very broad way, two approaches to the topic of *assertion and denial* are explored in this issue. According to the first one, assertion and denial are analysed with some tools and concepts taken from epistemology, philosophy of language, game theory, and so on. A second approach focuses on the logical characterization of the illocutionary acts by means of some concepts and tools of philosophical logic, like the meaning of the logical constants, an inferentialist account of semantics, and bilateralism.

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