Maciej Witek

https://szczecin.academia.edu/MaciejWitek

Institute of Philosophy, Faculty of Humanities, University of Szczecin and Cognition & Communication Research Group (CCRG) http://ccrg.usz.edu.pl/

What is it for an assertion to be normal? *

Workshop "Assertion, Norms and Effects", Università Degli Studi di Trieste, 13-14.11.2017

^{*} The preparation of this paper is supported by the National Science Centre, Poland, through research grant No. 2015/19/B/HS1/03306.

General aim:

• to examine the possibility of explaining the normative aspect of assertion in naturalistically acceptable terms, i.e., by using the theoretical framework of Ruth G. Millikan's (1984; 2004; 2005) biological model of language.

General aim:

• to examine the possibility of explaining the normative aspect of assertion in naturalistically acceptable terms, i.e., by using the theoretical framework of Ruth G. Millikan's (1984; 2004; 2005) biological model of language.

Contents:

- 1. Introduction
- 2. An outline of Ruth G. Millikan's theoretical framework
- 3. A critical analysis of Brian Ball's derivation of the knowledge rule
- 4. A naturalistic derivation of the belief rule

Particular aims:

- to critically examine Brian Ball's (2014a, 2014b) naturalistic derivation of the knowledge rule (Williamson 1996):
 - **(KR)** One must: assert that *p* only if one knows that *p*;

Particular aims:

- to critically examine Brian Ball's (2014a, 2014b) naturalistic derivation of the knowledge rule (Williamson 1996):
 - **(KR)** One must: assert that *p* only if one knows that *p*;
- to develop an alternative account of *a* norm governing the practice of making and interpreting assertions, namely of the belief rule:
 - **(BR)** One must: assert that p only if one believes that p.

Particular aims:

- to critically examine Brian Ball's (2014a, 2014b) naturalistic derivation of the knowledge rule (Williamson 1996):
 - **(KR)** One must: assert that *p* only if one knows that *p*;
- to develop an alternative account of *a* norm governing the practice of making and interpreting assertions, namely of the belief rule:
 - **(BR)** One must: assert that p only if one believes that p.

Worth stressing:

• like Ball, in what follows I use Millikan's theoretical framework (→ proper function, Normal conditions, cooperative intentional signs).

Particular aims:

- to critically examine Brian Ball's (2014a, 2014b) naturalistic derivation of the knowledge rule (Williamson 1996):
 - **(KR)** One must: assert that *p* only if one knows that *p*;
- to develop an alternative account of *a* norm governing the practice of making and interpreting assertions, namely of the belief rule:
 - **(BR)** One must: assert that p only if one believes that p.

Worth stressing:

like Ball, in what follows I use Millikan's theoretical framework
 (→ proper function, Normal conditions, cooperative intentional signs).

Claim:

• in his derivation, Ball equivocates between two senses of 'normally': *Normally* and *properly*;

Ball:

- (C) Speakers *normally* assert only what they know.
- (N) Speakers always have (some, possibly overridden) reason to do what is *normal*.

Ball:

- (C) Speakers *normally* assert only what they know.
- (N) Speakers always have (some, possibly overridden) reason to do what is *normal*.

Current proposal:

- (C') Speakers *normally* assert only what they believe.
- (N) Speakers always have (some, possibly overridden) reason to do what is *normal*.

Ball:

- (C) Speakers *normally* assert only what they know.
- (N) Speakers always have (some, possibly overridden) reason to do what is *normal*.

Current proposal:

- (C') Speakers *normally* assert only what they believe.
- (N) Speakers always have (some, possibly overridden) reason to do what is *normal*.

Central question:

• What is it for an assertion to be *normal*?

Proper function:

a function F of item A is its **proper function** or **proper purpose** if "A originated as a 'reproduction' (to give one example, as a copy of a copy) of some prior item or items that, <u>due in part to possession of the properties reproduced</u>, have actually performed F in the past, and A exists because (causally historically because) of this or these performances."

(Millikan 1989: 28)

Proper function:

a function F of item A is its **proper function** or **proper purpose** if "A originated as a 'reproduction' (to give one example, as a copy of a copy) of some prior item or items that, <u>due in part to possession of the properties reproduced</u>, have actually performed F in the past, and A exists because (causally historically because) of this or these performances."

(Millikan 1989: 28)

A hammer that is used:

- as a paperweight,
- as a temporary rest for a projector,
- for driving nails.

Proper function:

a function F of item A is its **proper function** or **proper purpose** if "A originated as a 'reproduction' (to give one example, as a copy of a copy) of some prior item or items that, <u>due in part to possession of the properties reproduced</u>, have actually performed F in the past, and A exists because (causally historically because) of this or these performances."

(Millikan 1989: 28)

Millikan:

- we can ascribe univocally proper functions to such items as:
 - genes,
 - organs,
 - behavioural dispositions,
 - tools and technologies,
 - words, constructions, speech acts, conventions, and so on.

Normal conditions for proper functioning of a device:

"the conditions to which the device that performs the proper function is (...) adapted." (Millikan 1984, p. 34)

Normal conditions for proper functioning of a device:

"the conditions to which the device that performs the proper function is (...) adapted." (Millikan 1984, p. 34)

Consider:

• a rabbit's disposition to flee in response to any noise;

Normal conditions for proper functioning of a device:

"the conditions to which the device that performs the proper function is (...) adapted." (Millikan 1984, p. 34)

Consider:

• a rabbit's disposition to flee in response to any noise;

PF = to flee in response to a noise;

NC = the noise to which the rabbit reacts is *produced by* or *correlated with* the presence of a predator;

Normal conditions for proper functioning of a device:

"the conditions to which the device that performs the proper function is (...) adapted." (Millikan 1984, p. 34)

Consider:

• a rabbit's disposition to flee in response to any noise;

PF = to flee in response to a noise;

- NC = the noise to which the rabbit reacts is *produced by* or *correlated with* the presence of a predator;
- this disposition is advantageous to the rabbit only in a predatory environment.

Normal conditions for proper functioning of a device:

"the conditions to which the device that performs the proper function is (...) adapted." (Millikan 1984, p. 34)

Consider:

• a magnetosome mechanism in megnetotactic bacteria;

Normal conditions for proper functioning of a device:

"the conditions to which the device that performs the proper function is (...) adapted." (Millikan 1984, p. 34)

Consider:

• a magnetosome mechanism in megnetotactic bacteria;

PF = to steer these bacteria toward the north magnetic pole;

NC = being steered toward the magnetic north pole is being steered toward regions of optimal oxygen concentration;

Normal conditions for proper functioning of a device:

"the conditions to which the device that performs the proper function is (...) adapted." (Millikan 1984, p. 34)

Consider:

a magnetosome mechanism in megnetotactic bacteria;

PF = to steer these bacteria toward the north magnetic pole;

- NC = being steered toward the magnetic north pole is being steered toward regions of optimal oxygen concentration;
- this mechanism is advantageous to these organisms only in the environment in which the NC is met.

Cooperative intentional signs:

"are produced by systems designed to make natural signs for use by cooperating interpreting systems. That is, the sign-maker system and the sign-using system must have evolved or been designed to function symbiotically. Cooperating intentional sign-makers must be designed to cooperate with interpreting systems that have been designed, in turn, to cooperate with them."

(Millikan 2004, p. 73)

Cooperative intentional signs:

"are produced by systems designed to make natural signs for use by cooperating interpreting systems. That is, the sign-maker system and the sign-using system must have evolved or been designed to function symbiotically. Cooperating intentional sign-makers must be designed to cooperate with interpreting systems that have been designed, in turn, to cooperate with them."

(Millikan 2004, p. 73)

Consider:

• a rabbit's perceptual system (\rightarrow PS) and its executive system (\rightarrow ES);

Cooperative intentional signs:

"are produced by systems designed to make natural signs for use by cooperating interpreting systems. That is, the sign-maker system and the sign-using system must have evolved or been designed to function symbiotically. Cooperating intentional sign-makers must be designed to cooperate with interpreting systems that have been designed, in turn, to cooperate with them."

(Millikan 2004, p. 73)

Consider:

• a rabbit's *perceptual system* (\rightarrow PS) and its *executive system* (\rightarrow ES);

PF of PS = to produce a percept that is 'true' in accordance with a preferred correspondence rule;

PF of ES = to translate the percept into a preferred behaviour;

Cooperative intentional signs:

"are produced by systems designed to make natural signs for use by cooperating interpreting systems. That is, the sign-maker system and the sign-using system must have evolved or been designed to function symbiotically. Cooperating intentional sign-makers must be designed to cooperate with interpreting systems that have been designed, in turn, to cooperate with them."

(Millikan 2004, p. 73)

Consider:

• a rabbit's perceptual system (\rightarrow PS) and its executive system (\rightarrow ES);

PF of PS = to produce a percept that is 'true' in accordance with a preferred correspondence rule;

PF of ES = to translate the percept into a preferred behaviour;

NC for ES = the percept it consumes is true as it 'reads the language';

Cooperative intentional signs:

"are produced by systems designed to make natural signs for use by cooperating interpreting systems. That is, the sign-maker system and the sign-using system must have evolved or been designed to function symbiotically. Cooperating intentional sign-makers must be designed to cooperate with interpreting systems that have been designed, in turn, to cooperate with them."

(Millikan 2004, p. 73)

Consider:

• a rabbit's perceptual system (\rightarrow PS) and its executive system (\rightarrow ES);

PF of PS = to produce a percept that is 'true' in accordance with a preferred correspondence rule;

PF of ES = to translate the percept into a preferred behaviour;

NC for ES = the percept it consumes is true as it 'reads the language';

PS & ES cooperate in accordance with a pattern that is 'built into' the structure of the rabbit's cognitive system.

3.	A critical analysis of Brian Ball's derivation of the knowledge rule

3. A critical analysis of Brian Ball's derivation of the knowledge rule *Ball's aim*:

- to explain in naturalistically acceptable terms "why it should be that we engage in a practice namely, assertion which is subject to the knowledge rule" (2014a: 16);
- to "understand what it is for an assertion to be normal in naturalistic terms." (*ibid*)

- 3. A critical analysis of Brian Ball's derivation of the knowledge rule
- (P1) *normally*, speakers assert only if they intend_R to induce belief;
- (P2) *normally*, speakers intend_R to induce belief only if hearers come to belief;
- (P3) *normally*, hearers come to belief only if thereby come to know;
- (P4) *normally*, hearers come to know only if speakers know;

therefore:

(C) *normally*, speakers assert only if they know.

- 3. A critical analysis of Brian Ball's derivation of the knowledge rule
- (P1) *normally*, speakers assert only if they intend_R to induce belief;
- (P2) *normally*, speakers intend_R to induce belief only if hearers come to belief;
- (P3) *normally*, hearers come to belief only if thereby come to know;
- (P4) *normally*, hearers come to know only if speakers know;

therefore:

(C) *normally*, speakers assert only if they know.

"The conclusion then follows from the premisses, by the transitivity of 'only if', together with the fact that 'normally' serves as a universal quantifier <u>over the same set of normal cases of assertion</u>" (Ball 2014a: 18).

- 3. A critical analysis of Brian Ball's derivation of the knowledge rule
- (P1) *normally*, speakers assert only if they intend_R to induce belief;
- (P2) normally, speakers intend_R to induce belief only if hearers come to belief;
- (P3) *normally*, hearers come to belief only if thereby come to know;
- (P4) *normally*, hearers come to know only if speakers know;

therefore:

(C) *normally*, speakers assert only if they know.

"The conclusion then follows from the premisses, by the transitivity of 'only if', together with the fact that 'normally' serves as a universal quantifier <u>over the same set of normal cases of assertion</u>" (Ball 2014a: 18).

Aim:

• consider what supports the above-mentioned premises.

3. A critical analysis of Brian Ball's derivation of the knowledge rule *Ball*:

"Roughly speaking, on Millikan's view, a token of a device type functions <u>normally</u> (or <u>properly</u>) if, and only if, it does what tokens of that type did in past cases in which they contributed to the evolutionary success of the organism type possessing or employing the device, thus serving to explain the persistence of the organism type, and of the device type."

(Ball 2014b: 344)

"(...) Millikan thinks that a device type functions <u>normally (or properly)</u> if, and only if, it does what past tokens of it did which caused them to be copied, thereby causally explaining the fact that current tokens of the type exists."

(Ball 2014a: 17).

3. A critical analysis of Brian Ball's derivation of the knowledge rule *Ball*:

"Roughly speaking, on Millikan's view, a token of a device type functions <u>normally</u> (or <u>properly</u>) if, and only if, it does what tokens of that type did in past cases in which they contributed to the evolutionary success of the organism type possessing or employing the device, thus serving to explain the persistence of the organism type, and of the device type."

(Ball 2014b: 344)

"(...) Millikan thinks that a device type functions <u>normally (or properly)</u> if, and only if, it does what past tokens of it did which caused them to be copied, thereby causally explaining the fact that current tokens of the type exists."

(Ball 2014a: 17).

Millikan:

proper functioning / Normal functioning.

- 3. A critical analysis of Brian Ball's derivation of the knowledge rule (P1) *normally*, speakers assert only if they intend_R to induce belief; *Note that*:
 - Ball assumes the Gricean notion of assertion, according to which to assert that p is (a) to utter a sentence that means that p
 (b) intending_R to get one's hearer to believe that p;
 - according to this reading, therefore, the (represented) PF of one's assertion that p is to induce in one's hearer the belief that p;

- 3. A critical analysis of Brian Ball's derivation of the knowledge rule
- (P1) *normally*, speakers assert only if they intend_R to induce belief;

Note that:

- Ball assumes the Gricean notion of assertion, according to which to assert that p is (a) to utter a sentence that means that p
 (b) intending_R to get one's hearer to believe that p;
- according to this reading, therefore, the (represented) PF of one's assertion that p is to induce in one's hearer the belief that p;
- intentions_R are *aspects* or *structural components* of Gricean assertions rather than their effects;
- therefore, one's intending_R that *p* is not the PF, but a NC of one's act of asserting hat *p*.

- 3. A critical analysis of Brian Ball's derivation of the knowledge rule (P1) *normally*, speakers assert only if they intend_R to induce belief; *What supports (P1)*:
 - S would not assert that p in uttering 'p'
 if she didn't intend to induce in the hearer the belief that p;
 - in short, the Gricean model describes Normal cases of assertions.

- 3. A critical analysis of Brian Ball's derivation of the knowledge rule (P1) *normally*, speakers assert only if they intend_R to induce belief; *What supports (P1)*:
 - *S* would not assert that *p* in uttering '*p*' if she didn't intend to induce in the hearer the belief that *p*;
 - in short, the Gricean model describes Normal cases of assertions.

Quantifier in (P1):

• in all *Normally* functioning acts of (making an) assertion ...

- 3. A critical analysis of Brian Ball's derivation of the knowledge rule
- (P2) *normally*, speakers intend_R to induce belief only if hearers come to belief;

- according to Ball, "(...) speakers would not continue to assert if hearers didn't believe what they are told" (2014a: 17);
- in particular, they would not continue to intend_R to induce beliefs in their hearers if the hearers didn't believe what they are told;

- 3. A critical analysis of Brian Ball's derivation of the knowledge rule
- (P2) *normally*, speakers intend_R to induce belief only if hearers come to belief;

- according to Ball, "(...) speakers would not continue to assert if hearers didn't believe what they are told" (2014a: 17);
- in particular, they would not continue to intend_R to induce beliefs in their hearers if the hearers didn't believe what they are told;
- "(P2) is supported by the thought that it is (...) advantageous to speakers to utter something intending to induce belief in a proposition only if hearers accept that proposition" (2014b: 345);
- in other words, it is advantageous to them to assert a proposition only if hearers accept that proposition.

- 3. A critical analysis of Brian Ball's derivation of the knowledge rule
- (P2) *normally*, speakers intend_R to induce belief only if hearers come to belief;

In short:

• a NC for proper functioning of the practice of making assertions is the existence of trustful hearers.

Quantifier in (P2):

• in all *Normally* functioning acts of making an assertion ...

- 3. A critical analysis of Brian Ball's derivation of the knowledge rule
- (P3) *normally*, hearers come to belief only if thereby come to know;

- hearers wouldn't come to belief what they are told if they didn't thereby come to know;
- it is advantageous to the hearers to come to belief what they are told only if they *thereby* come to know;

- 3. A critical analysis of Brian Ball's derivation of the knowledge rule
- (P3) *normally*, hearers come to belief only if thereby come to know;

- hearers wouldn't come to belief what they are told if they didn't thereby come to know;
- it is advantageous to the hearers to come to belief what they are told only if they *thereby* come to know;
- therefore, a (further) proper effect of one's coming to believe what one is told is one's coming to know;
- in other words, the PF of the practice of interpreting assertion is acquiring knowledge.

- 3. A critical analysis of Brian Ball's derivation of the knowledge rule
- (P3) *normally*, hearers come to belief only if thereby come to know;

- hearers wouldn't come to belief what they are told if they didn't thereby come to know;
- it is advantageous to the hearers to come to belief what they are told only if they *thereby* come to know;
- therefore, a (further) proper effect of one's coming to believe what one is told is one's coming to know;
- in other words, the PF of the practice of interpreting assertion is acquiring knowledge.

The quantifier in (P3):

• in all *properly* functioning acts of interpreting an assertion ...

- 3. A critical analysis of Brian Ball's derivation of the knowledge rule
- (P4) *normally*, hearers come to know only if speakers know.

- according to Ball, (P4) "is made plausible by reflecting on the fact that knowledge requires safety" (2014a: 18);
- in other words, hearers wouldn't come to know by accepting speakers' assertions if speakers didn't know;

- 3. A critical analysis of Brian Ball's derivation of the knowledge rule
- (P4) *normally*, hearers come to know only if speakers know.

- according to Ball, (P4) "is made plausible by reflecting on the fact that knowledge requires safety" (2014a: 18);
- in other words, hearers wouldn't come to know by accepting speakers' assertions if speakers didn't know;
- therefore, a NC for proper functioning of the practice of interpreting assertions is that speakers know.

The quantifier in (P4):

• in all *Normally* functioning acts of interpreting an assertion ...

- 3. A critical analysis of Brian Ball's derivation of the knowledge rule *In sum*:
- (P1) In *Normally* functioning acts of **making** an assertion, speakers assert only if they intend_R to induce belief;
- (P2) In *Normally* functioning acts of **making** an assertion, speakers intend_R to induce belief only if hearers come to belief;
- (P3) In *properly* functioning acts of **interpreting** an assertion, hearers come to belief only if thereby come to know;
- (P4) In *Normally* functioning acts of **interpreting** an assertion, hearers come to know only if speakers know;

- 3. A critical analysis of Brian Ball's derivation of the knowledge rule *In sum*:
- (P1) In *Normally* functioning acts of **making** an assertion, speakers assert only if they intend_R to induce belief;
- (P2) In *Normally* functioning acts of **making** an assertion, speakers intend_R to induce belief only if hearers come to belief;
- (P3) In *properly* functioning acts of **interpreting** an assertion, hearers come to belief only if thereby come to know;
- (P4) In *Normally* functioning acts of **interpreting** an assertion, hearers come to know only if speakers know;

"term 'normal' should be read normatively, historically, and **relative to specific function**." (Millikan 1989, p. 284, my emphasis – M.W.)

Key ideas:

• speech act in general, and assertions in particular, are *cooperative intentional signs* in Millikan's sense;

- speech act in general, and assertions in particular, are *cooperative intentional signs* in Millikan's sense;
- assertions stand "midway between two systems that have been designed to cooperate with one another:" (Millikan 2004: 73) assertion-making (\rightarrow *A-M*) and assertion-consuming system (\rightarrow *A-C*);

- speech act in general, and assertions in particular, are *cooperative intentional signs* in Millikan's sense;
- assertions stand "midway between two systems that have been designed to cooperate with one another:" (Millikan 2004: 73) assertion-making (\rightarrow *A-M*) and assertion-consuming system (\rightarrow *A-C*);
- *A-M* & *A-C* jointly reproduce a **pattern of cooperative interaction**, which is **conventional** (see Millikan 1998 and 2005);

- speech act in general, and assertions in particular, are *cooperative intentional signs* in Millikan's sense;
- assertions stand "midway between two systems that have been designed to cooperate with one another:" (Millikan 2004: 73) assertion-making (\rightarrow *A-M*) and assertion-consuming system (\rightarrow *A-C*);
- *A-M* & *A-C* jointly reproduce a **pattern of cooperative interaction**, which is **conventional** (see Millikan 1998 and 2005);
- recall a rabbit's PS and its ES; these two systems cooperate in accordance with a **pattern of cooperative interaction** that is 'built into' the structure of the rabbit's cognitive system and has been *selected for* its ability to ensure a preferred correspondence *between* what the rabbit perceives *and* how it behaves;

- speech act in general, and assertions in particular, are *cooperative intentional signs* in Millikan's sense;
- assertions stand "midway between two systems that have been designed to cooperate with one another:" (Millikan 2004: 73) assertion-making (\rightarrow *A-M*) and assertion-consuming system (\rightarrow *A-C*);
- *A-M* & *A-C* jointly reproduce a **pattern of cooperative interaction**, which is **conventional** (see Millikan 1998 and 2005);
- *by analogy*, the **conventional pattern** reproduced by *A-M* & *A-C* has been selected for its ability to ensure **mental coordination**;

- speech act in general, and assertions in particular, are *cooperative intentional signs* in Millikan's sense;
- assertions stand "midway between two systems that have been designed to cooperate with one another:" (Millikan 2004: 73) assertion-making (\rightarrow *A-M*) and assertion-consuming system (\rightarrow *A-C*);
- *A-M* & *A-C* jointly reproduce a **pattern of cooperative interaction**, which is **conventional** (see Millikan 1998 and 2005);
- *by analogy*, the **conventional pattern** reproduced by *A-M* & *A-C* has been selected for its ability to ensure **mental coordination**;
- i.e., for the role it plays in keeping the beliefs of *S* and the beliefs of *H* sufficiently aligned;

- speech act in general, and assertions in particular, are *cooperative intentional signs* in Millikan's sense;
- assertions stand "midway between two systems that have been designed to cooperate with one another:" (Millikan 2004: 73) assertion-making (\rightarrow *A-M*) and assertion-consuming system (\rightarrow *A-C*);
- *A-M* & *A-C* jointly reproduce a **pattern of cooperative interaction**, which is **conventional** (see Millikan 1998 and 2005);
- *by analogy*, the **conventional pattern** reproduced by *A-M* & *A-C* has been selected for its ability to ensure **mental coordination**;
- i.e., for the role it plays in keeping the beliefs of *S* and the beliefs of *H* sufficiently aligned;
- roughly, such an **alignment** is advantageous to both *S* & *H*; it serves as a basis for their coordinated actions (Witek *forthcoming*).

Distinguish:

- (i) the *coordinative* PF of a conventional *S-H* pattern;
- (ii) the PF of A-M;
- (iii) the PF of A-C;
- (iv) the PF of an assertion construed of as a CIS.

Distinguish:

- (i) the *coordinative* PF of a conventional *S-H* pattern;
- (ii) the PF of A-M;
- (iii) the PF of A-C;
- (iv) the PF of an assertion construed of as a CIS.

Key idea:

• functions (iii) & (iv) coincide in content.

Distinguish:

- (i) the *coordinative* PF of a conventional *S-H* pattern;
- (ii) the PF of A-M;
- (iii) the PF of A-C;
- (iv) the PF of an assertion construed of as a CIS.

Key idea:

• functions (iii) & (iv) coincide in content.

Claim:

• a NC for proper functioning of an assertion is its sincerity;

Distinguish:

- (i) the *coordinative* PF of a conventional *S-H* pattern;
- (ii) the PF of A-M;
- (iii) the PF of A-C;
- (iv) the PF of an assertion construed of as a CIS.

Key idea:

• functions (iii) & (iv) coincide in content.

Claim:

- a NC for proper functioning of an assertion is its sincerity;
- i.e., normal assertions are assertions that obey the belief rule:
 - **(BR)** One must: assert that p only if one believes that p.

In sum:

- the PF of assertions, *qua* assertions, is to get hearers to believe what they are told and *thereby* to contribute to what I call *mental coordination*, i.e., to keeping the interlocutors' individual belief systems sufficiently aligned;
- the NC under which assertions can function properly is their sincerity; in other words, normal assertions are speech acts that are governed by the belief rule (BR).

Literature:

- Ball, B. (2014a). On the Normativity of Speech Acts. In P. Stalmaszczyk (ed.), *Semantics and Beyond. Philosophical and Linguistic Inquiries*, pp. 9-26. Berlin/Boston: De Gruyter.
- Ball, B. (2014b). Speech Acts: Natural or Normative Kinds? The Case of Assertion. *Mind & Language* **29** (3), 336-350.
- Millikan, R.G. (1984). *Language, Thought and Other Biological Categories*. Cambridge, Mass.: MIT Press.
- Millikan, R.G. (1989). Biosemantics. The Journal of Philosophy 86, 281-297.
- Millikan, R.G. (1998). Language Conventions Made Simple. *The Journal of Philosophy* **95**, 161-180.
- Millikan, R.G. (2004). Varieties of Meaning. Cambridge, Mass.: MIT Press.
- Millikan, R.G. (2005). Language: A Biological Model. Oxford: Oxford University Press.
- Sbisà, M. (forthcoming). Varieties of speech act norms. In. M. Witek and I. Witczak-Plisiecka (eds.), Normativity and Variety of Speech Actions. Leiden: Brill (Poznań Studies in the Philosophy of the Sciences and the Humanities).
- Williamson, T. (1996). Knowing and Asserting. *The Philosophical Review* **105**, 489–523.
- Witek, M. (2015). An Interactional Account of Illocutionary Practice. *Language Sciences* **47**, 43-55.
- Witek, M. (forthcoming). Coordination and Norms in Illocutionary Interaction. In. M. Witek and I. Witczak-Plisiecka (eds.), *Normativity and Variety of Speech Actions*,. Leiden: Brill (*Poznań Studies in the Philosophy of the Sciences and the Humanities*).