Tadeusz Ciecierski
Institute of Philosophy
University of Warsaw

LINGUISTIC CRITERIA
OF INTENTIONALITY*

Abstract. The aim of this paper is to discuss theories that attempt to single out the class of *intentional states* by appealing to factors that are supposedly criterial for *intentional sentences*. The papers starts with distinguishing two issues that arise when one thinks about intentional expressions: the *Taxonomy Problem* and the *Fundamental Demarcation Problem*. The former concerns the relation between the classes of distinct intentional verbs and distinct intentional states. The latter concerns the question about how to distinguish intentional states and acts from the non-intentional ones. Next, the general desiderata for theories providing criteria for singling out the class of intentional sentences are introduced. Finally, distinct proposals for providing such criteria are analyzed. Author argues that neither is satisfactory.
Keywords: intentionality, intentional sentences, linguistic criteria of intentionality.

The linguistic view of intentionality embraces theories that attempt to single out the class of *intentional states* by appealing to factors that are supposedly criterial for *intentional sentences*. In the pages that follow I shall argue that this strategy breaks down at the very start: the criteria in question fail to distinguish the latter class. In part 1, I shall review the crucial problems that arise when one addresses the issue of the relation between intentional language and intentional states. In part 2.1., I shall discuss the general desiderata that every adequate theory of intentional speech must satisfy. In sections 2.2.–2.8., I shall discuss various proposals for which criteria should be used for singling out the class of intentional states (*CIS*, henceforth).

1. The Linguistic View of Intentionality

Regardless of the answer to the question of whether intentionality is the mark of every mental state, one has to agree that at least some mental

states are intentional. The property of being intentional has been traditionally explicated into two different (and sometimes competing) manners. The first, discussed extensively in the early Brentano school, attempted to describe intentionality as *aboutness*, that is, the fact that mental states seem to be directed towards transcendent objects. The second, also originating in the Brentano school, pursued the description of intentionality as *contentfullness*, that is, the fact that some mental states have content. The highly theoretical notion of *content* has been the subject of at least two competing interpretations too: object dependent and object-independent[1]. The former stressed out that content is the manner of presentation or the mental picture *of* the object of intentional state. The latter enabled contents to be detached from the possible objects of intentional states, thus allowing for the object-independent thoughts. After more than 150 years, the debates regarding the object-content distinction as well as those about the object-dependent and object-independent intentionality still remain at the very heart of philosophical disputes concerned with the representational capacities of the mind.

Some philosophers might have hoped that the linguistic turn in analytic philosophy would bring progress and clarity to such debates. However, it turned out relatively quickly that looking at intentionality through the lens of language in lieu of bringing light may obscure the phenomenon in question. This can probably be best illustrated by the predominant relationalist conception of propositional attitudes that emerged in the contemporary analytic philosophy. When asked about the nature of propositional attitudes many philosophers would describe them as relational mental states that relate agents to objects called "propositions" or "propositional contents"[2]. Thus (to mention a few prominent examples), for Fodor, according to standard formulation "(...) to believe that P is to bear a certain relation to a token of a symbol which means that P." (Fodor, 1987, p. 135), for Salmon and Soames "Propositions are what we believe, disbelieve, or suspend judgment about" (Salmon, Soames, 1988, p. 1), and in Chalmers' coordination account "(...) there are two relevant sorts of relations between subjects and enriched propositions: endorsement and belief" (Chalmers, 2011, p. 619). It seems, however, that all such relationists' accounts are theoretical byproducts of (independently fascinating) inquiries into the logical form of attitude sentences (which are obviously relational). For the time being, nonetheless, I will leave the issue of the supposed relational nature of attitudes untouched[3] and I shall address two matters that, at first sight, might seem to fit much better to the methods and goals of the linguistic analysis.

The first problem I shall call *the Taxonomy Problem*. Probably all theories of intentionality distinguish two aspects of every intentional state: its *content* (or, if one prefers, *object*) and its *psychological mode*[4]. When, for instance, Kate thinks that she will win the first lottery prize and, at the very same time, she desires to win the first lottery price, it is said that Kate is in two content identical states that differ with respect to the psychological mode (one being that of *thinking* and the other that of *desiring*). When we attempt to describe a general form of intentional explanations (and make a place for intentional laws or law-like generalizations), what matters is usually the taxonomy based on psychological modes. One question that immediately arises here is, how many distinct kinds of intentional states do we want to employ in such explanations? One possible answer to that question is endorsed by the following hypothesis:

> *The distinction between kinds of intentional states corresponds to the distinction between kinds of intentional verbs*[5].

On the one hand, nobody doubts that two synonymous intentional verbs correspond to the same type of intentional state (if any). But this is hardly interesting as: it is a simple consequence of the fact that two synonymous predicates correspond to the same property (if any). On the other hand, probably nobody has ever claimed that all linguistically encoded kinds of constraints that can be put on states of cognitive agents are relevant for the individuation of their states qua intentional states. The verbs "know" and "believe", for instance, are clearly non-synonymous, however, it is very likely that they indicate a single kind of intentional state: *the belief*. This suffices to establish that the correspondence aforementioned in the hypothesis must be partial and that, if one wants to approach the Taxonomy Problem through the analysis of intentional speech, imposing additional constraints on non-synonymous classes of intentional verbs seems obligatory. An obvious candidate for such a constraint employs the concept of intentional explanation. It states that *two non-synonyms intentional verbs denote a single kind of intentional state if and only if there are no intentional laws (or law-like generalizations that might play a role in intentional explanations) that make use of one verb but could not have made use of the other* (*when employed in intentional explanations*). The idea is that, roughly speaking, two verbs denote a single kind of intentional state in the case where all Ramsey sentences that generalize over the appropriate verbs, and which are derived from the relevant laws or law-like generalizations, happen to be logically equivalent. This constraint, on the one hand, pays attention to inferential

relations among intentional predicates, and on the other, due to the connection with the action explanation, it treats such connections as essential for grouping intentional states into kinds. The constraint in question helps us to recognize cases where two predicates (intentional verbs) denote a single kind of intentional state (for example, it helps us to establish belief and knowledge as being of the one intentional kind). However, it is oblivious to the issue of the primordiality and redundancy of that part of the characteristic of both verbs that makes them non-synonymous (do the verbs denote a single *belief-like-state* or rather *knowledge-like-state*?). Here one has to appeal to the inferential asymmetry of the two verbs: if every non-compound sentence that contains one, entails the non-compound sentence that contains the other (but not *vice versa*), the latter is a much better candidate for the basic intentional state. One may say that, in such cases, they both denote a single intentional state but they *indicate* or *correspond* to distinct *intentional state candidates* (and, at the end of the day, the former ("know") might be said to correspond to the *impure intentional state*).

There is, I think, a direct implication that such additional constraints have on the initial hypothesis. By summoning the notion of *intentional explanation* and the related notion of *intentional generalization* one does not adhere to the linguistic solution of the Taxonomy Problem. The individuation of kinds of states in terms of psychological modes now becomes a question about scope and structure of the explanatory fruitful theory of intentionality. No insight is offered here by the linguistic view of the intentional.

The second problem is the notorious demarcation problem: the question about how to distinguish intentional states and acts from the non-intentional ones. I shall call this problem *the Fundamental Demarcation Problem*. The linguistic view of intentionality has arisen as a result of the analysis of this issue. Roughly (and partially metaphorically) speaking, the linguistic view either endorses the following hypothesis:

> *The distinction between intentional and non-intentional states is mirrored in the distinction between intentional and non-intentional sentences.*

or explicitly commits itself to "ontological blindness" by raising "(...) the subject level of the discussion from phenomena to talk about phenomena" (Dennett, 1969, p. 22). It goes without saying that the linguistic view assumes that we have a clear criteria that enable us to single out the class of intentional sentences. The reminder of this paper is devoted to the Funda-

mental Demarcation Problem and reasons why the hypothesis endorsed by the linguistic view offers no solution to it.

2. The Linguistic Criteria of the Intentional

The linguistic view of intentionality attempts to distinguish intentional and non-intentional by discriminating talk about intentional phenomena and talk about non-intentional phenomena. In the remainder of this chapter I shall discuss various criteria for identifying the class of intentional sentences and the reasons why they fail. Some of the shortcomings I am going to present have been noted by other authors (Yoder (1987), for instance, contains a critical analysis of Chisholm and Marras proposals) but it may be useful to remind everyone about them in one place (hence I am not presupposing that the reader has a prior knowledge on that matter). The plan of the chapter looks as follows: I will start by presenting the general desiderata that any such criteria would have to meet, then I shall discuss numerous proposals for selecting such criteria.

2.1. Desiderata

If one believes that there is more or less a precise distinction between the class of intentional and non-intentional sentences, then, I think, one has to accept the following weak and uncontroversial desiderata.

(D1) Some sentences are intentional, some are not intentional. Moreover, we have clear and uncontroversial cases of sentences that belong to the two classes[6].

Sentences like "Penguins cannot fly", "$2 + 3 = 5$" or "The center of the mass of the solar system is the sun" are not intentional sentences. While sentences like: "President Obama hopes Congress will do it", "Justin believes that New York is bigger than Toronto" or "Trump fancies that immigration is harmful to the economy" are intentional sentences. It is important to note in this context that among clear and uncontroversial cases of intentional sentences there are both *de dicto* and *de re* ones. Hence, for instance, both "Justin believes that New York is bigger than Toronto" as well as "Justin believes of New York that it is bigger than Toronto" belong to that class.

(D2) The class of intentional sentences is not identical to the class of sentences that indicate *basic* or *pure* intentional states.

This requirement points out that the Fundamental Demarcation Problem and the Taxonomy Problem are different problems. There is an interpretation of the methodological solipsism main thesis, that is the claim that "no psychological state, properly so called, presupposes the existence of any individual other than the subject to whom that state is ascribed" (Putnam, 1975, p. 136), according to which the class of intentional sentences must correspond to the class of sentences that indicate intentional states properly so called (*pure intentional states* according to the terminology introduced above). (D2) straightforwardly opposes this claim: "know" – despite being a clear-cut indicator of the state that presupposes the existence of trans-subject entities – is an intentional verb and non-compound sentences that contain it are intentional sentences.

(D3) An intentional/non-intentional distinction applies both to compound and non-compound sentences.

This requirement presupposes an interpretation of the compound/non-compound distinction as applied to sentences. This distinction is assumed by Chisholm in his notorious discussion regarding the criteria of intentionality (cf. Chisholm (1955–56, pp. 125–129) and (1957, p. 169–172), see below). It is important not to confuse this distinction with the other between *atomic* and *non-atomic* sentences. Atomic sentences, like "Fido is a dog", are ones that do not contain other sentences as parts. Non-atomic ones, like "If Fido is a dog, then Fido is a mammal" are ones that contain other sentences as parts. In contrast, non-compound sentences may contain other sentences as parts (for instance, "John thinks that Fido is a dog" is a non-compound sentence that is not atomic). Authors like Chisholm follow traditional grammar[7] and note that one has to exclude form the class of non-compound sentences the ones that are built with the help of two-argument propositional connectives (Chisholm (1955–56, p. 126)). From this point of view the class of non-compound sentences embraces both atomic sentences and sentences built with the help of one-argument propositional connectives (hence modal sentences and sentences built with the help of propositional negation or propositional assertion are non-compound). (D3) states that the notion of *intentional sentence* transcends the class of non-compound sentences.

Before discussing the candidates for the criteria of the intentional let me stop for a moment and ask how we might arrive at this extended class of intentional sentences. The original proposal of Chisholm was to employ a simple recursive definition and state that "(...) a compound declarative sentence is intentional if and only if one or more of its component sentences is

intentional" (ibid. p. 129). However, this definition (if interpreted as a non-arbitrary characterization of the extended class of intentional sentences) fails to achieve its goal due to the following reasons.

Firstly, there are compound intentional sentences that contain no intentional sentences as components. Consider:

John thinks that he will visit New York rather than Chicago.

which contains two non-intentional sentences as parts ("John will visit New York" and "John will visit Chicago") and which is clearly intentional (as is the main operator of the sentence: "x thinks that (–––) rather than that (...)").

Secondly, contrary to what Chisholm suggests, there are no arguments that support the conclusion that any of the following sentences is intentional rather than non-intentional:

Grass is green or John thinks that $2 + 2 = 5$.
Neither Bombay is the capital of India, nor John thinks that $2 + 2 = 5$.
If Einstein believed that the General Relativity Theory is true, then the General Relativity Theory is true.

Now, even the less liberal version of the definition, namely:

A compound declarative sentence is intentional if and only if all of its component sentences are intentional

fails to capture the intuitive notion of the *compound intentional sentence*. For example consider:

Neither John believes that, nor Barbra does.

which literally attributes no intentional states to John and Barbra[8]. (D3) is not committed to any such recursive principles. It states only that the intersection of the set of compound sentences and the set of intentional sentences is non-empty[9].

Let us inquire now into the various criteria for singling out the class of intentional sentences.

2.2. Chisholm's Criteria

Roderick Chisholm is the author of the three most famous criteria for singling out *CIS*.

The first part of his three-fold proposal looks as follows:

A simple declarative sentence is intentional if it uses a substantival expression A – a name or a description – in such a way that neither the sentence

> nor its contradictory implies either that there is or that there isn't anything to which the substantival expression applies (Chisholm, 1957, p. 170)

Due to its connection with the concept of *existence* we may say that, according to this criterion, intentional sentences are *existentially neutral*. The rationale of this criterion is clear: it attempts to provide an explication of the Brentano insight that one can entertain thoughts about the present Emperor of Madagascar, Sherlock Holmes or the largest natural number.

The second criterion states that:

> (...) any compound sentence which contains a propositional clause (...) is intentional provided that neither the sentence nor its contradictory implies either that the propositional clause is true or that it is false (Chisholm, 1957, pp. 170–171)

Due to its connection with the concept of *truth* we may say that, according to this criterion, intentional sentences are *non-veridical*. This criterion, for instance, enables one to establish that sentences with propositional negation as the main operator are not intentional. It may be important to note here briefly the fact that the rationale of taking non-veridicality as criteria for the intentional is probably motivated by not distinguishing clearly between the Fundamental Demarcation Problem and the Taxonomy Problem (taking this criterion as necessary for intentionality would automatically eliminate knowledge attributions as intentional). Hence it is difficult to reconcile this criterion with our desideratum (D2).

According to the final criterion:

> Suppose there are two names or descriptions which designate the same things and E is a sentence obtained merely by separating these two names or descriptions by means of 'is identical with' (...) Suppose also that A is a sentence using one of those names or descriptions and that B is like A except that where A uses the one B uses the other. Let us say that A is intentional if the conjunction of A and E does not imply B (Chisholm, 1957, p. 171)

Due to its connection with the principle of extensionality we may say that, according to this criterion, intentional sentences are *non-extensional*. The commonly recognized failure to substitute co-referential terms in belief contexts provides a good illustration of the application of the third criterion.

Let me start by noting that Chisholm described the three criteria as "working criterion" (in the singular) so, since the very beginning, he was aware of some of their possible shortcomings (more about that below). For Chisholm the criteria in question were really (and just) a starting point

of the philosophical project of finding "logico-grammatical" criteria of the intentional he carried out for more than a decade. Here is Jaegwon Kim's reminiscence of Chisholm seminars in the sixties:

> I was at Brown during the early 1960s as a junior colleague of Chisholm's, and (...) I diligently attended Chisholm's graduate seminars. At the time, only five years after the publication of *Perceiving*, Chisholm's linguistic project was still going forward with great vigor. He had by then abandoned the definition he had offered in "Sentences About Believing" and *Perceiving*, but not the project of finding a logico-grammatical definition of "intentional sentence" and hence of the psychological. At every session of his seminar, he would present a new and improved definition of "intentional sentence" and challenge members of the seminar to refute it. I believe we were for the most part able to oblige. But it was amazing to see how philosophically resourceful Chisholm was; he was often able to make repairs on the spot and put up a new definition on the blackboard, not just in an *ad hoc* way but in ways that were philosophically motivated and illuminating. Sometimes he had to admit, in the end, that he would have to try all over again the following week, and he always kept his promise by returning with other definitions, sometimes definitions that took a surprisingly new turn. He was always eager to listen to objections and criticisms, ready not only to make repairs and minor modifications but also to strike out in wholly new and unexpected directions. He always kept himself one or two steps ahead of everyone else. In this process, his impressive philosophical powers were on display, as were his intellectual honesty and single-minded dedication to getting things right, not just defeating his opponents or impressing others with quick and clever ripostes. (Kim, 2003, p. 653)

Since my aim here is not an exegesis of Chisholm's original intentions and philosophical development of his ideas, I shall dwell upon the criteria as autonomous philosophical proposal[10].

One thing that one may find perplexing is the fact that the criteria are presented as applicable to particular sentences rather than schematic sentences or sentences forms. This may result in some unwelcome consequences. As a result, the intentionality of a sentence depends on what is its component sentence: "John believes that $2 + 3 = 5$" may cease to be taken as intentional because *there are no situations* where "$2 + 3 = 5$" is false (so the sentence would be veridical). Fortunately, it is not difficult to address this problem: it is sufficient to say that, if a given sentence counts as intentional (according to some criterion), then all sentences having the same form (or falling under one identical scheme) are intentional. I will, therefore, interpret the criteria along these lines.

Let me start by observing that there are various ways in which Chisholm's proposal might be interpreted. Two questions seem crucial here: (A) are the criteria intended as sufficient, necessary or both?; (B) do they

have to be treated jointly or separately?[11] Depending on how we address these issues, we arrive at different conclusions regarding *CIS*.

Let me start by considering the hypothesis that *existential neutrality*, *non-veridicality* and *non-extensionality* are jointly sufficient for identifying the class of intentional sentences. That is:

(Hypothesis 1) If *existential neutrality*, *non-veridicality* and *non-extensionality* are jointly true of some atomic (non-compound) sentence *p*, then *p* is an intentional sentence.

This however is at conflict with our desideratum (D1): some modal sentences (i.e. a clear-cut and paradigmatic cases of non-intentional sentences) satisfy jointly all three conditions. For example let's consider the intuitively true sentence:

It is contingent that the fourth son of Socrates is (*tenseless*) born in Sparta[12].

where contingency is understood as the combination of non-necessity and non-impossibility (i.e. it is contingent that p = it is not necessary that p & it is possible that p). Since Socrates never had the fourth son, the sentence does not entail that "the fourth son of Socrates" refers to something. Neither the negation of the sentence entails that: the failure of contingency is clearly consistent with the impossibility of the component sentence and with the fact that the actual world does not contain the fourth son of Socrates. Similar remarks apply to *non-veridicality*: the sentence in question neither entails "The fourth son of Socrates is (*tenseless*) born in Sparta" nor "It is not the case that the fourth son of Socrates is (*tenseless*) born in Sparta". The same applies to its negation which is perfectly consistent with the impossibility or necessity of the component sentence[13]. Finally, the sentence is non-extensional which can be best seen by considering its variant:

It is contingent that the number of planets in the Solar System is eight.

and by substituting "eight" for "the number of planets in the Solar System". It follows that there are non-intentional sentences that satisfy *existential neutrality*, *non-veridicality* and *non-extensionality*. Hence the criteria are not jointly sufficient. It follows automatically that they are also not separately sufficient and that they cannot be jointly necessary and sufficient.

We are, therefore, left with another (weaker) eventuality:

(Hypothesis 2) If *p* is an intentional (non-compound) sentence, then *existential neutrality*, *non-veridicality* and *non-extensionality* are jointly true of *p*.

This, however, also cannot be true. For, this time, consider a clear-cut intentional sentence:

Trump fancies that immigration is harmful to the economy.

which is (among other things) veridical (it entails that it is not the case that immigration is harmful to the economy). It follows that (Hypothesis 2) is wrong.

The only remaining option is to consider Chisholm's conditions as separately necessary (with the exception of *veridicality* that has just been shown to be separately incorrect). Here, again, we have a direct conflict with (D1) since *de re* intentional sentences like:

Cesar believed of Rome that it is situated on the Tiber.

is neither existentially neutral nor non-extensional.

So we see that no interpretation of Chisholm's criteria can give us the right characteristics of the class of intentional sentences. It is, I think, important to keep that in mind because the belief that the criteria in question give a pretty good idea of what intentionality is, and that it is prevailing and consistent (despite Chisholm's later rejection of the criteria). Recently, for instance, yet another author (cf. Foxall, 2007) appealed to intensionality (our non-extensionality) as criterial for intentionality. He claimed even (following a similar opinion of Quine) that the main distinction between behavioristic and intentional psychology lies in the fact that the former uses extensional language while the other uses an intentional one[14]. It is clear that such a simple-minded linguistic approach cannot take us very far.

2.3. Chisholm's Modified Criterion

After numerous attempts Chisholm set forth the following elegant logico-grammatical criterion which happened to be his last proposal regarding the issue of linguistic benchmarks of intentionality[15]:

(...) a sentence prefix M is intentional or psychological just as in the case for any sentence *p*, the result of prefixing M to *p*, namely, M(*p*), results in a contingent sentence. (Kim, 2003, p. 654)

This criterion is aimed mainly at distinguishing modal and intentional sentences: if we follow Wittgenstein's intuition (and ignore modal pluralism suggested by possible-world semantics for modal logic), then we would probably agree that all modal sentences, as stating something about the structure of the whole logical space, must themselves be either necessary or impossible.

Chisholm's proposal is that nothing similar applies to intentional sentences as they seem to be always contingent, regardless of what component sentence they contain.

Kim dismisses the criterion on the basis of the popular myth about beliefs and belief sentences: that it is impossible to believe inconsistencies[16]. However, we do not need to follow him in that respect to find counterexamples. For instance, if p is impossible and if knowledge is factive, then "A knows that p" is necessarily false. And, since knowledge sentences are uncontroversial examples of intentional sentences, the criterion is not necessary. But what about its sufficiency? One may consider as potential counterexamples the *fiction operators* (e.g. *in the novel N*) or the *span operators* (e.g. *at some past/future time interval*, cf. Brogaard, 2007). Let us briefly discuss the latter class as the former looks more like an example of a disguised intentional operator. Consider the case of (non-tense) *region span operators*. It has been noted that if a span operator takes a contradiction as an argument this sometimes results in a true sentence and sometimes in a false one. For example, "AT-SOME-REGION(It is raining and it is not raining)" is true since there are areas that contain two sub-areas that differ with respect to the weather. At the very same time, "AT-SOME-REGION(A is not self-identical)" is false. What is important here is that "AT-SOME-REGION(It is raining and it is not raining)" is contingently true: there are no logical or metaphysical restrictions regarding the weather condition in regions or areas of different possible worlds. The same applies to: "AT-SOME-REGION($\sim$(It is raining and it is not raining))" which is contingent. This means that the prefix "AT-SOME-REGION" may be the main operator of the contingent sentence regardless of the logical status of the component sentence (up to its logical equivalence). This shows that span operators are non-intentional and hypertintensional (this fact will be of some relevance later on).

However, this still does not show that Chisholm's criterion is insufficient as span operators may still be the main operators of non-contingent sentences (like: "AT-SOME-REGION(A is not self-identical)"). In fact, I think that, despite providing the wrong illustration, Kim is correct in his general verdict, as either finding examples of such operators/prefixes is not plausible or – if there are such operators/prefixes – known intentional operators/prefixes are not among them[17]. It seems, therefore, that we have no reasons to believe that the class of prefixes that satisfy Chisholm's criterion and the class of intentional operators have common elements.

2.4. Marras-Dennett's Criterion

According to Marras[18]:

> (...) cognitive sentences (or the cognitive verbs contained in them) necessarily imply or presuppose or refer to certain intentional activities (...) we no longer need any new criterion in addition to the first two proposed by Chisholm. All that is needed is that each of the two criteria be supplemented by a condition like the following: 'Any sentence which necessarily implies a sentence that is intentional by this criterion is itself intentional'. (Marras, 1968, p. 262)

At nearly the same time, in *Content and Consciousness*, Daniel Dennett suggested that we may determine the class of intentional sentences by looking at the logical implications of particular statements (Dennett, 1969, pp. 24–25). Firstly, a sentence p is intentional if it has intentional implications. Secondly, something is an intentional implication of something else if it meets (directly) Chisholm's criteria for intentional sentences.

One of the advantages of the Marras-Dennett criterion is that it meets our desideratum (D2): we are no longer encouraged to identify *CIS* with pure intentional sentences. Another is that it provides a promising method of defining the extended class of compound intentional sentences: this class may be defined as the one that consists of compound sentences that have intentional implications[19]. However, the main shortcoming of this proposal is not very difficult to indicate: it relies on the original Chisholm criteria. This in itself suffices for assessing the Marras-Dennett criterion as incorrect. Had the criteria for pinpointing intentional implications been different, the Marras-Dennett might have been worthy of further consideration.

2.5. Kenny's Criterion

For Kenny one may "heuristically" define intentionality as "the formal property which is peculiar to the description of psychological events and states" (Kenny, 2003, p. 135). He considers the criterion of *non-exponibility* in order to capture this formal property:

> (...) among sentences which contain more than one verb we must distinguish between those in which one of the verbs is exponible and those where neither is exponible. 'John began to smoke' differs from 'John wanted to smoke' because the former sentence, unlike the latter, could be expanded into a compound sentence which contained no other verb but 'smoke' and included expressions indicating times. (...) Such verbs, when so used, are not intentional verbs. (*ibid.*, p. 139)

Kenny's point of departure is the hypothesis that intentional sentences may be ones that cannot be analyzed in a manner similar to "John began to

smoke", i.e. that they are the ones that must essentially involve two verbs in the analysis. However, Kenny immediately notes that there are examples of sentences/verbs that are not intentional and non-exponible (he mentions "to be able" and "to bring about that" here). Notwithstanding this defect, Kenny thinks that Chisholm's third criterion (*non-extensionality*) will do the job as "Mark Antony is bringing it about that Cicero will be murdered" seems tantamount to "Mark Antony is bringing it about that Tully will be murdered"[20]. His suggestion is, therefore, that non-extensionality and non-exponibility may be jointly necessary and sufficient.

The first thing to note here is that the joint criterion is in conflict with (D1): as we have observed above there are *de re* sentences that are exemplary intentional. Other natural counterexamples involve all the intentional sentences that do not contain two verbs (like "Rudolf thinks of money", "John knows nothing" or "John is honest"). All this shows that non-extensionality and non-exponibility are not jointly necessary. More importantly for our present discussion, Kenny's notion of *exponibility* must be understood in terms of concepts such as *paraphrase*. Now, "John knows that $2 + 3 = 5$" can be expanded, analyzed or paraphrased in terms of sentences that do not contain "know" (they, of course, contain other verbs like "believe"). Hence, in order for knowledge attributions to count as cases of intentional sentences, we must interpret exponibility as oblivious to the indicated change in verbs. This means that we have to count verbs in the analysans and assume that one of the verbs that feature in the analysis must be intentional[21]. This point is important because, as indicated by the well-known phenomenon of intentional circularity, every intentional sentence is subject to paraphrases that make use of some *other* intentional verb ("John believes that $2 + 3 = 5$" might be roughly paraphrased as "John takes the sum of 2 and 3 to be identical with 5"). This, of course, begs the question: rather than providing the criterion of singling out *CIS* it offers the criterion that assumes that we already know the list of intentional verbs and sentences.

2.6. Morick's Criterion

Harold Morick proposed the following sufficient condition for *CIS* that can be seen as yet another attempt of explicating the original idea of Brentano's intentional inexistence:

> A verb is intentional if there is a basic sentence containing it such that it is *not* a truth condition for either the sentence or its negation that the object of the verb succeed or that it fails to reference. A basic sentence using an inten-

tional verb reports a psychological occurrence, and any sentence whatsoever which *uses* (as opposed to *mentions*) an intentional verb deals with what is psychological. (Morick, 1971, p. 41)

As Morick notes the criterion is not necessary as there are intentional verbs that are not meeting this criterion[22]. Morick also adds that if a verb satisfies the condition for some basic sentence, than every sentence that contains it is intentional (he probably means here that every *basic* sentence that contains it is intentional, otherwise several compound non-intentional sentences would have to belong to *CIS*). According to Morick the criterion is tantamount to the following condition on verbs (where "exists" is used in the temporal sense):

> A verb is intentional if there is a basic sentence containing it such that it is not a truth condition for the sentence or its negation that there exists or that there does not exist something to which the object of the verb applies. (*ibid.*, p. 42)

In the first formulation of the criterion Morick appeals to the notion of *truth condition*. The notion of *truth condition* – especially if used when speaking about the reference of the parts of the truth conditionally evaluable sentence – is strictly connected with that of *compositionality*. When speaking about truth conditions we do not have to be committed to a strong version principle of compositionality, we do not even have to think that truth conditions of the whole statement are the function of the truth conditional contribution of its parts. However, we have to believe that the following weak principle holds:

> Truth conditions of a sentence S are not completely independent of the truth conditional contribution of proper syntactic parts of S[23].

In other words: truth conditional contributions of proper syntactic parts of S at least partially determines truth conditions of S.

Now, *prima facie* Morick's proposal might be interpreted in two different ways. The first is the fact that the object of the verb succeeds in referring or that it does not is truth-conditionally irrelevant because the object of the verb is not, in fact, a proper syntactic part of the sentence[24]. Consider one of Morick's examples (taken from Montague):

> Schliemann looked for the site of Troy.

According to this interpretation, "the site of Troy" is no more a syntactic part of the sentence than "man" (part of "Schliemann"), "or" (part of "for") or "it" (part of "site") are[25]. Regardless of the plainly implausible character

of this proposal, its main drawback from the viewpoint of Morick's criterion is that it becomes self-refuting: it makes no sense to say that expressions like "the site of Troy" are objects of the verb.

We have to assume, therefore, that the alternative interpretation that takes expressions like "the site of Troy" as legitimate syntactic parts of sentences is correct. In such a case "the site of Troy" has a truth conditional contribution that partially determines truth conditions of "Schliemann looked for the site of Troy". At the very same time this truth-conditional contribution is not a reference of "the site of Troy" since "Schliemann looked for the site of Troy" has the same truth conditions as in:

> Schliemann looked for the site of Troy and "the site of Troy" refers to something.

as in:

> Schliemann looked for the site of Troy and there is nothing that "the site of Troy" refers to.

So, when Morick notes that it is *not* a truth condition for either the sentence or its negation that the object of the verb successfully refers or that it fails to refer he *does not* means that the existence of the referent of an expression E is not a truth condition of the sentence that contains E (since this is generally true of all sentences) but that it does not affect the truth conditions.

One problem with Morick's criterion is that it has a limited area of applications. It is unclear how it can be applied to propositional attitude sentences where the grammatical object of the verb is the whole that-clause. Does Morick mean that, "that $2 + 3 = 5$", as it occurs in "John believes that $2 + 3 = 5$" and in "It is not the case that John believes that $2 + 3 = 5$", neither is nor is not "referentially successful"? This may be correct but I do not think that we can decide on that matter on the basis of the naïve linguistic intuition that ignores complicated philosophical considerations regarding the nature and the existence of the referents of that-clauses. I must admit that I do not have any clear intuitions on that matter, although I have many more precise beliefs about how various semantic and ontological theories of that-clauses and their referents may push philosophers towards different answers to that question. Morick's response would probably be that his criterion is not applicable to propositional attitude sentences. However, this would make it extremely restricted[26].

Another problem is connected with the notion of *reference*. As several authors convincingly argued definite descriptions are not genuine referential terms. The class of genuine referential terms contains indexicals, demonstra-

tives and proper names. Now, from that perspective, in the case of sentences such us "Schliemann looked for the site of Troy" the question of reference of "the site of Troy" does not even arise. We have to rather, therefore, consider sentences like:

Raleigh looked for *El Dorado.*
Carnap is thinking of *this.*
He is talking about *Monica Bellucci.*

where the object either is or *prima facie* looks ("El Dorado") as a genuine referential term. However, proper names and indexicals are directly referential terms – their truth conditional contribution is the referent. Given this we may start to have serious doubts if sentences that contains such expressions might be referentially or existentially neutral in the sense required by Morick's criterion. For instance, contemporary theories of belief sentences that follow hidden-indexical strategy are not referentially neutral in the sense required by Morick's criterion. Of course, the issue is a familiar one: it is difficult to incorporate direct reference into theories of intentional sentences. However, just like in the case of propositional attitude sentences, it is a complicated philosophical matter if the direct reference is consistent with certain supposed facts regarding intentional talk, and I do not think that theoretically unguided intuition can decide on such matters. By the same token I believe that Morick's criterion rests on a simplified vision of referential terms and reference.

2.7. Olafson's Criterion
Frederick Olafson is another author who has offered a criterion for singling out *CIS*:

I would like to draw attention to another 'linguistic' criterion of intentionality not previously mentioned (...) This criterion turns on the referential opacity of certain expressions which may occur in intentional sentences, and it makes the point that if I do not know of the equivalence of two expressions A and B and use A in a statement of belief, like 'I believe that A is C', it cannot be inferred from the latter that 'I believe that B is C' is also true. This criterion thus draws our attention to the way the verb or intentional act is 'tied' to its object or rather to the object under the description used in conceptualizing it. (Olafson, 1975, p. 83)

The difference between this proposal and Chisholm's non-extensionality criterion is that the former contains a positive proposal: intentional sentences are the ones that allow substitution of equivalents A and B only

if (1) the subject is disposed to use an expression A in a (sincere) assertion p (subject's "statement of belief"), (2) the subject knows that the substituted terms are equivalent.

The first thing to note is that the criterion incorrectly appeals to meta-linguistic knowledge and linguistic dispositions that are tied to particular expressions (of some particular language). Caesar, for instance, has never been disposed to sincerely utter an English sentence "Rome is a city in Italy" nor had a meta-linguistic knowledge that English nouns "city" and "town" are (near) equivalents. However, due to his likely disposition to sincerely assert "Urbe Roma in Italia est" and knowledge that "urbs and "oppidum" are (near) equivalents, we are clearly justified in accepting the following inference:

> Caesar believed that Rome was a city in Italy.
> Therefore: Caesar believed that Rome was a town in Italy.

One way out is to modify the Olafson's criterion along the following lines:

> Intentional sentence I(p) is the one that allows for substitution of two equivalents A and B only if (1) the subject is disposed to use an expression A* (translation of A into the language used by the subject) in a (sincere) subject's "statement of belief" p* (that can be translated into a p that contains A), (2) the subject knows that A* and B* (a translation of B into the language used by the subject) are equivalent.

Stated in this manner the criterion covers the cases where we cannot expect that the subject speaks our language. However, what about sentences that attribute intentional states to non-linguistic creatures? Since the notion of translation is useless in such cases, we must acknowledge that the criterion is not necessary for intentional sentences. There are other reasons for thinking this as well. The first is that Olafson makes a mistake that is a mirror image of the one made by Morick. Morick ignored this in his criterion propositional attitudes while Olafson, when speaking about "statements of belief", ignores non-propositional intentional states. The second is that it is conceivable and logically possible that some person holds a certain belief, uses a certain sentence to express it, knows that a certain term A that occurs in the sentence is equivalent to another term B and, despite this, does not in turn hold the belief that could have been expressed by a sentence in which B is substituted for A. As Max Hocutt noted once: "(...) there are knowers and knowledge constituting counterexamples to every extant theorem (...) of every epistemic logic" (Hocutt, 1972, p. 435). Last but not least, Olafson's criterion appeals to knowledge attributions, i.e. sentences

to which we already know that they are intentional. All these facts result, again, in the limited applicability and circularity of the offered intentional touchstone.

2.8. Hyperintensionality

The final criterion I shall discuss is that of hyperintensionality. Many authors[27] have noticed that belief sentences, for instance, disallow not only the substitution of equivalents but also the substitution of *necessary equivalents*[28]. It is, for instance, true that some people believe that $2 + 4096 = 4098$, it is also true that "$2 + 4096 = 4098$" is necessarily equivalent to "$2 + 8^4 = 4098$". However, for some of the people in question it is not the case that they believe that $2 + 8^4 = 4098$. The negative hyperintensionality criterion has been occasionally supplemented by positive criteria such as that of *intensional isomorphism* (Carnap (1947)), *synonymous isomorphism* (Church (1954)) or others that appeal to structured intensions or meanings. Still, since all such criteria remain controversial I shall restrict the discussion to the negative hyperintensionality.

Let me start with the case of counterfactual conditionals. Suppose, for instance, that Jack miscalculated the sum of 2 and 8^4 to be 4092. Given this, it is intuitively correct to say that:

If $2 + 8^4$ were 4092, then Jack would have got the result right.

However, despite the fact that "$2 + 8^4 = 4092$" is necessarily equivalent to "$2 + 8^4 = 1$" (both are necessarily false), it is intuitively incorrect to say in this situation that:

If $2 + 8^4 = 1$, then Jack would have got the result right.

So it seems that counterfactual conditionals do not allow for the substitution of necessarily equivalents and, since they are uncontroversial cases of non-intentional sentences, hyperintensionality seems insufficient for intentionality.

The example might be dismissed on at least two grounds. Firstly, it is in conflict with the most common versions of the semantics for counterfactuals (Stalnaker-Lewis semantics) where all counterfactual conditionals with impossible antecedents are true. Secondly, it appeals to compound sentences. Although we have not stated the hyperintensionality criterion as applicable to non-compound sentences only, it is rather natural to do so. In this instance, therefore, the example shows at most that hyperintensionality is not sufficient for intentionality given that the official semantics for counterfactuals is inadequate and given that the criterion is applicable to compound

sentences. And, albeit I think that there are reasons to question the adequateness of the official semantics for counterfactuals[29] as well as not to restrict hyperintensionality to non-compound sentences, I do not want to make the counterexample dependent on those two assumptions. Unfortunately for the criterion there are other counterexamples. We have already discussed one class: *span operators*. Earlier on I have argued that they cannot be used to question Chisholm's late criterion of intentionality. However, I have also argued that they can be used as examples of hyperintensional and non-intentional operators. If so, hyperintensionality is not sufficient for intentionality. Strikingly, the hyperintensionality is not even necessary for *CIS* as there are *de re* intentional sentences (*vide* (D1)). Since such sentences are extensional they are neither intensional nor hyperintensional.

3. Conclusions

While *prima facie* promising, the linguistic view of intentionality seems to be a theoretical dead-end. Above I have examined seven different linguistic criteria aiming at singling out the class of intentional sentences. However, none of them achieve this goal, albeit failing due to different reasons. Of course, this does not prove that providing such criteria is impossible and one may, of course, remain committed to one or the other version of the linguistically guided ontology of intentional states. Nonetheless such a person must probably explicitly appeal to the claim that intentional sentences are the ones that (non-trivially) contain *intentional verbs*. She must also admit that it is the linguistic meaning of particular verbs that decides if they count as intentional. And this, at the end of the day, takes us back to the notion of the intentional mental state: intentional verbs are the ones that are used to talk about intentional mental states. The linguistic view of intentionality, therefore, seems to be circular and explanatorily futile. This strongly suggests that it might be better to approach the concept of the *intentional state* in a more direct, and to a large extent non-linguistic, manner. A manner that combines semantic studies with ontological, methodological and formal considerations, as well as with inquiries into philosophical interpretations of empirical results. Rather than following the linguistic view it seems more theoretically desirable to investigate the extra-linguistic criteria of the intentional, criteria that explicitly make use of notions such as *aboutness*, *content*, *direction of fit*, *meinongian incompleteness*, *encoding-exemplifying distinction*, *intentional explanation* or *intentional circularity*. I think that most contemporary philosophers follow this path, including the ones who,

to some degree, have declared themselves as close to the linguistic view of intentionality.

In a series of important writings Robert Stalnaker has contrasted two approaches to the problem of intentionality. One is the linguistic picture that takes mental states to "(...) represent the world because of their resemblance to, or relation with, the most basic kind of representations: linguistic expressions" (Stalnaker, 1984, p. 5), the other is the pragmatic picture that invites us to think of representational mental states "(...) in terms of the role that they play in the characterization and explanation of action" (*ibid.*, p. 4). Although the linguistic view of intentionality discussed in this paper, i.e. the approach that attempts to single out the class of intentional states by appealing to factors that are supposedly criterial for intentional sentences, has far less serious ambitions and scope than the linguistic picture qua characterized by Stalnaker, there can be no doubt that it may be considered as a not totally unimportant part of the latter. From that point of view the present considerations might be seen as indirectly supporting the pragmatic picture. I can only hope that together with other considerations, like Tałasiewicz's recent attempt (Husserlian in spirit) to derive basic semantic categories from basic types of intentional acts (cf. Tałasiewicz, 2010), it will make the case for a precise and self-critical version of the theory that describes intentionality as essentially connected with the "characterization and explanation of action".

Acknowledgements

N O T E S

[1] Some philosophers (Husserl, for example) distinguished different types of content.

[2] Such propositional contents are, of course, subjects of different interpretations – some think of them as sentences (of public or private language), others as states of affairs or as functions mapping worlds to truth values, yet others as structured entities that mirror the structure of sentences. For the present purpose these differences are irrelevant. What matters is the relationist conception that is common to all of them.

[3] The relationists picture has been accurately and penetratingly challenged by authors like Stalnaker (cf. Stalnaker, 1984, p. 8–10) and Matthews (cf. Matthews, 2007).

[4] To use the terminology of Searle (Searle, 1983). This distinction corresponds to a more traditional one between the *form* and the *content* of intentional states.

[5] The notion of *intentional verb* is, of course, far from being homogeneous. There are also huge differences between particular languages when it comes to intentional vocabulary. For a detailed analysis of some aspects of intentional verbs, see: Vendler, 1972, chapter 2.

[6] Brown (Brown, 1964–65) refers to such cases as "*bona fide* cases of intentional sentences and correctly writes: "If a *bona fide* case of an intentional sentence is found by some criterion to be 'non-intentional', then that criterion cannot be a necessary condition of an intentional use of language. And if a *bona fide* case of a non-intentional sentence is found to be 'intentional' by some criterion, then that criterion cannot be a sufficient condition of an intentional use of language" (*ibid.*, pp. 125–126)

[7] Which defines compound sentences as ones that have at least two independent clauses.

[8] The example assumes that the main operator of the sentence is bi-negation (not a conjunction). Since the notion of the compound sentence does not presuppose, by itself, any particular theory of logical form (or deep structure of sentences) there is no problem with assuming that two logically equivalent sentences may not be simultaneously intentional (or non-intentional).

[9] Notice that the desiderata hardly make the notion of the *intentional sentence* non-vague. Further, they do not entail the opposite. The desiderata are formulated in a manner general enough to remain consistent both with the approaches that take the category of the *intentional sentence* as non-vague as well as with the theories that postulate vagueness or indeterminacy of intentional attributions (like that of Stich (cf. Stich, 1983) or Dennett (cf. Dennett, 1989).

[10] I would like to stress that, despite all the criticism presented below, I consider Chisholm's self-critical approach as philosophically exemplary – both in terms of the insights it provides as well as in more general methodological terms.

[11] Chisholm's original intention was to take the criteria separately. He, for instance (*ibid.*, p. 171), speaks as if knowledge attributions were obvious intentional sentences despite the fact that they are clearly veridical (uncontroversially, they satisfy the third criterion).

[12] Socrates had, in fact, three sons.

[13] Marras (Marras, 1968, p. 259) dismisses the contingency counterexample on the basis of the fact that it seems to be a compound sentence. However, the fact that one sentence can be equivalent to another one which is non-compound does not entail that the former is compound. Otherwise, no sentence A would count as non-compound as it is logically equivalent to "A & A". A similar remark applies to the "nor (...) neither (–––)" example discussed earlier on.

[14] For the criticism of this version of the extensionality myth (language of science = extensional language) see: Prior, 1968.

[15] In 1986 Chisholm commented his earlier attempts in the following manner: "I now think that the attempt to view intentionality in this way was misguided." (Chisholm, 1986, p. 221), see also: Dąbrowski, 2013, pp. 179–182.

[16] In adhering to that myth he is, of course, in the good company of philosophers like Daniel Dennett (cf. Dennett, 1989b) or Ruth Barcan Marcus (cf. Marcus, 1993, chapters 10 and 15). I think that, on the contrary, it is much more better to follow Łukasiewicz's opinion on that matter (cf. Łukasiewicz, 1910).

[17] It is not difficult to algebraically define such an operator or prefix (we may call it: *Chisholm's operator*). If we interpret necessity as corresponding to the designated algebraic value 1 of three-valued logic, 1/2 as corresponding to contingency and 0 to impossibility, then our operator is the one that gives 1/2 as its value no matter what argument it takes (such logic, in order to capture intuitions governing standard modal logic, would have to probably follow Bochvar's much-valued logic). However, is this operator intentional in any clear sense? I see no reasons for believing that. Note that even if it makes no sense to speak about doxastic or epistemic logic (as convincingly suggested in Hocutt, 1972) it is still not enough to justify the claim that "believe" or "know" meet Chisholm's criterion since the non-contingency may still be a descriptive (non-logical) matter.

[18] The Marras proposal is to ignore *non-extensionality* and to take *existential neutrality* and *non-veridicality* as criterial for *CIS*.

[19] As noted by its authors: it requires the notion of entailment that does not allow for *ex contradictione sequitur quodlibet*.

[20] He alludes to other examples of Chisholm's criteria as being possibly supplementary but he does this in a very general and vague manner.

[21] We clearly do not want to barely count verbs in the analysans.

[22] Morick uses the term"psychological" or "mental" in the sense of our "intentional". Hence he is saying that a not very psychological or mental verb is intentional according to this criterion (he gives the examples of "deceive" and "examine"). Here we are following our terminology.

[23] The difference between this principle and the regular principle of compositionality is that it enables a context to have a direct impact on the truth conditions of S.

[24] An approach along such lines has been considered by Quine and others.

[25] The other option that follows Ajdukieiwcz (cf. Ajdukieiwcz, 1967) in claiming that "the site of Troy" must be treated as containing two *compositionally unconnected* atomic elements: "the site of" and "Troy" is not available here since the object may be a single non-analyzable expression.

[26] In fact, if propositionalism with respect to all sentences containing transitive intensional verbs is true, the objection can be generalized to cover all sentences.

[27] The origins of these observations can be traced back to at least Carnap (Carnap, 1947).

[28] The distinction is invisible in the case of identity statements and direct referential terms.

[29] For some recent discussion regarding that matter see: Sendłak, 2016.

R E F E R E N C E S

Ajdukiewicz K. (1967). Intensional Expressions. *Studia Logica*, 20, 63–86.

Brogaard B. (2007). Span Operators. *Analysis,* 67(1), 72–79.

Brown S. C. (1964–65). Intentionality without Grammar. *Proceedings of the Aristotelian Society, New Series*, 65, 123–146.

Carnap R. (1947). *Meaning and Necessity*. University of Chicago Press.

Chalmers D. (2011). Propositions and Attitude Ascriptions: A Fregean Account. *Nous* 45(4), 595–639.

Chisholm R. C. (1955–56). Sentences about Believing. *Proceedings of the Aristotelian Society New Series*, 56, 125–148.

Chisholm R. (1957). *Perceiving*. Ithaka.

Chisholm R. (1986). Bibliography. In R. J. Bogdan (ed.) *Roderick M. Chisholm* (pp. 219–233). D. Reidel Publishing Company, Springer.

Church A. (1954). Intensional Isomorphism and Identity of Belief. *Philosophical Studies*, 5(5), 65–73.

Dąbrowski A. (2013). *Intencjonalność i semantyka* [Intentionality and Semantics]. Universitas.

Dennett D.C. (1969). *Content and Consciousness.* Routledge.

Dennett D.C. (1989)a. Evolution, Error, and Intentionality. In D. C. Dennett, *The Intentional Stance* pp. 287–321). The MIT Press.

Dennett D.C. (1989)b. Making Sense of Ourselves. In D. C. Dennett, *The Intentional Stance* (pp. 83–101). The MIT Press.

Fodor J. (1987). *Psychosemantics.* The MIT Press.

Foxall G. R. (2007). Intentional Behaviorism. *Behavior and Philosophy*, 35, 1–55.

Hocutt M. O. (1972). Is Epistemic Logic Possible?. *Notre Dame Journal of Formal Logic*, 13(4), 433–453.

Kenny A. (2003). *Action, Emotion and Will.* 2nd edition, Routledge (first edition: 1963).

Kim J. (2003). Chisholm's Legacy on Intentionality. *Metaphilosophy*, 34(5), 649–662.

Łukasiewicz J. (1910). *O zasadzie sprzeczności u Arystotelesa, Studium krytyczne.* [*On the Principle of Contradiction in Aristotle. A Critical Study.*] Kraków: Akademia Umiejętności.

Marras A. (1968) Intentionality and Cognitive Sentences. *Philosophy and Phenomenological Research*, 29(2), 257–263.

Matthews R.J. (2007). *The Measure of Mind. Propositional Attitudes and their Attribution.* Oxford University Press.

Marcus R.B. (1993). *Modalities.* Oxford University Press.

Morick H. (1971). Intentionality, Intensionality and the Psychological. *Analysis*, 32(2), 39–44.

Olafson F. (1975). Husserl's Theory of Intentionality in Contemporary Perspective. *Nous*, 9(1), 73–83.

Prior A.N. (1968). Intentionality and Intensionality. *Proceedings of the Aristotelian Society, Supplementary Volumes*, 42, 92–106.

Putnam H. (1975). The Meaning of Meaning. *Minnesota Studies in the Philosophy of Science*, 7, 131–193.

Salmon W., Soames S. (1988). Introduction, In N. Salmon & S. Soames (Eds.), *Propositions and Attitudes* (pp. 1–6). Oxford University Press.

Searle J. (1983). *Intentionality.* Cambridge University Press.

Sendłak M. (2016). Alternative Frameworks and Counterpossibles. *Grazer Philosophische Studien*, 93, 24–41.

Stalnaker R.C. (1984). *Inquiry.* The MIT Press.

Stich S. (1983). *From Folk Psychology to Cognitive Science.* MIT Press.

Tałasiewicz M. (2010). *Philosophy of Syntax.* Springer Netherlands.

Vendler Z. (1972). *Res Cogitans.* Cornell University Press.

Yoder J. L. (1987). Chisholm's Criteria of Intentionality. *Philosophia* 17, 297–305.