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JOANNA KLARA TESKE

FALSIFICATION OF INTERPRETIVE HYPOTHESES IN THE HUMANITIES

INTRODUCTION

The present paper concerns the use of falsification in the humanities.¹ In particular, it focuses on the question whether interpretive hypotheses can be falsified, and whether the scientific (or scholarly) status of the relevant disciplines (such as literary studies or history of philosophy) might thereby be defended.

Falsification—the “testing of the theory by way of empirical applications of the conclusions which can be derived from it” (POPPER [1935] 2005, 9)—is the key procedure in Karl Popper’s model of science. Unlike various strategies of confirmation, which have no criterion of truth at their disposal, falsification is, logically speaking, conclusive—contradiction being the criterion of falsehood (POPPER [1994] 1997, 143). The contrast between the two is nicely captured in Brian Magee’s words: “although no number of observation statements reporting observations of white swans allows us logically to derive the universal statement ‘All swans are white,’ one single observation statement, reporting one single observation of a black swan, allows us logically to derive the statement ‘Not all swans are white’” (MAGEE

Dr hab. JOANNA KLARA TESKE — Katedra Literatury i Kultury Angielskiej, Instytut Filologii Angielskiej Katolickiego Uniwersytetu Lubelskiego Jana Pawła II; adres do korespondencji: Instytut Filologii Angielskiej KUL, Al. Raławickie 14, 20-950 Lublin; e-mail: jteske@kul.pl

¹ I have touched upon the issue of falsification in the humanities in some of my previous publications concerning the possibility of applying Popper’s model of science in the humanities or the issue of artistic contradictions. Some repetitions with reference to the previous publications have been unavoidable.

[1973] 1985, 22). Consistently, Popper argues, falsifiability (not verifiability) of a theory should be perceived as an index of its scientific status. i.e. serve as the demarcation criterion (POPPER [1935] 2005, 18–19). As he further explains, “statements, or systems of statements, convey information about the empirical world only if they are capable of clashing with experience [...]” (POPPER [1935] 2005, 315). *Nota bene*, unfalsifiable statements are not viewed by Popper as in principle nonsensical or epistemically worthless; he only views them as unscientific (POPPER [1935] 2005, 12–14, 17–18, 313–16).

Needless to say, the above picture of falsification is idealized.² In fact, falsification is highly difficult to implement because there are no theory-free observational statements that might conclusively falsify the tested hypothesis, in other words, there are no foolproof falsifiers (KOTERSKI 2004, 28; CHALMERS 1993, 88–89; GROBLER 2006, 65–75; CHMIELEWSKI 1995, 174–75); nor are there clear rules allowing the scientist to identify the faulty element once the contradiction between the tested hypothesis and the falsifier has occurred: it might be the tested hypothesis, but it might also be an element of the background knowledge, a supportive hypothesis, some theory inscribed in the equipment used during the experiment, or even the falsifier itself (CHALMERS 1993, 88–105; GROBLER 2006, 75–80; CHMIELEWSKI 1995, 176). At the same time as a demarcation criterion, falsifiability is clearly too vague: many falsifiable statements are trivial or clearly erroneous, hence undeserving of “scientific” status (KOTERSKI 2004, 44).³

Though for the above reasons it is inconclusive, falsification should not be disregarded. Apparently, together with other epistemic procedures, it constitutes the method of science—the most reliable source of human knowledge, capable of continual progress.

Before moving on to the humanities, it is important to clarify the term *falsification*. The term has several meanings, two of which are relevant here

² As Koterski explains, the simplified form of “dogmatic falsificationism” should not be mistaken for Popper’s actual standpoint. Popper was well aware that falsification is not easy to apply, that good theories may be erroneously falsified, that falsification of a theory should not automatically determine its elimination; he appreciated the importance of corroboration (empirical support the theory gains if it survives severe testing), and regarded falsifiability and scientificity to be gradable (KOTERSKI 2004, 65–66, 70–71, 195).

³ These objections against Popper’s theory of falsification, raised originally by Imre Lakatos and Larry L. Laudan, seem to be the strongest, but their list is much longer. In his book, Koterski presents them at length, indicating their original authors, and taking into consideration the evolution of Popper’s ideas (cf. also CHMIELEWSKI 1995, 120–56).

—one narrow and one broad. The broad meaning, to be found in most dictionaries of the English language, is *to prove false, disprove*. The narrow meaning is *to prove a theory false by confronting a hypothesis derived from this theory with empirical evidence* (cf. POPPER [1935] 2005, 9–10); the method is based on the argument form called *modus tollendo tollens*: $[(p \rightarrow q) \wedge \sim q] \rightarrow \sim p$ (*inferring from the negation of the consequent to the negation of the antecedent*) (e.g. KOTERSKI 2004, 25).⁴ The two epistemic activities need to be differentiated, as one can falsify a theory *sensu lato* by for instance indicating that it is self-contradictory, i.e. without falsifying it *sensu stricto*. *Nota bene*, the case of p (an important element of a theory) directly contradicting empirical evidence ($\sim p$) will be taken in the present paper as a special case of falsification in its narrow meaning.

THE HUMANITIES AND THE PROCEDURE OF FALSIFICATION

The humanities are concerned with culture. Essential for culture are meanings and values.⁵ These, though immaterial, are real and hence may be considered as empirical data. Accordingly, the humanities (including many philosophical disciplines) may be regarded as empirical sciences. As such they should be able to make use of falsification.

Given that contradiction is the criterion of falsehood, one might suppose that the phenomenon of artistic contradiction will generate most difficulties when applying falsification in the humanities. In the natural sciences contradiction between a theory and empirical data indicates that the theory is erroneous on the assumption that there can be no contradiction in the object

⁴ Cf. e.g. the following two sentences from Józef M. Bocheński's *The Methods of Contemporary Thought*: "A statement is verifiable if it can be verified or falsified, that is, if it is possible to show that it is true or false" (BOCHEŃSKI 1965, 55, *to falsify a statement* means here *to demonstrate that it is false*), and "Falsification is logically valid, but confirmation on the other hand is never conclusive. In this case, as has already been pointed out, the inference from consequent to antecedent does not hold logically; whereas the inference from the negation of the consequent to the negation of the antecedent is based on a law of logic and is universally valid" (ibid. 94, here *to falsify* means *to infer from the negation of the consequent to the negation of the antecedent*).

This note and part of the paragraph repeat *verbatim* the relevant passage from Teske, "The Cognitive Value of Contradictions – Revision." (=TESKE 2015).

⁵ While recognizing that values constitute an important element of culture, the present paper concentrates on meanings.

under investigation, i.e. nature. An analogical assumption cannot be made with reference to artefacts, which very often entail contradictions (cf. e.g. Mark Z. Danielewski's *House of Leaves* — with the blind expert on films and the house that is bigger on the inside than the outside). And yet, though such contradictions complicate the process of falsifying interpretive hypotheses, they do not seem to entirely invalidate it. If a contradiction is found between two theories or a theory and artefactual evidence, one needs to check whether the contradiction in question does not derive from the artefact; only then can the procedure of falsification be finalized.⁶

The issue of artistic contradictions may be intriguing, but the real challenge for applying the procedure of falsification to interpretations of artefacts seems to be located elsewhere, in the special character of meanings, which may be

- ◆ ambiguous (indefinite and self-contradictory),
- ◆ multiple,
- ◆ unstable (to a certain extent generated in the process of interaction between the mind of the recipient and the artefact, in which also the variable context is an important factor).⁷

This is true of many objects of culture, but especially of works of art, which are essentially original material objects whose primary function is to inscribe (for the artist) and evoke (for the recipient) some psychic experience, the cognitive content of which consists of meanings and values. *Nota bene*, although the meaning of a work of art is partly generated in aesthetic experience, it seems possible to speak of objective meaning(s) of the artefact which constitute(s) its semantic core and is (are) available to most recipients familiar with the culture to which the artefact belongs.⁸ Without this assumption any rational examination of the meaning of artworks is impossible.

Given the above characteristics displayed by meanings of artefacts, it is clear that the act of interpretation, construed traditionally as reconstruction of the meaning inherent in an artefact (BRONK 1997, 302–03), is fraught

⁶ Cf. the detailed discussion of this issue in TESKE, *Contradictions in Art: The Case of Postmodern Fiction* (= TESKE 2016, 152–58).

⁷ Cf. Eco's description of the dependence of the text's meaning on its interpretations: "the text is an object that the interpretation builds up in the course of the circular effort of validating itself on the basis of what it makes up as its result" (ECO [1990] 1994, 59).

⁸ Cf. Hirsch's distinction between the original (and permanent) *meaning* of a work of literature, intended by the author, whose reconstruction is the aim of interpretation, and the *significances* the text acquires in new contexts for various recipients, which are the object of criticism (HIRSCH 1967, 8–10, 57, 62–63).

with difficulties. Consequently, so is the act of evaluating interpretations. Naturally, depending on the poetics of the artefact the task of its interpretation will be more or less difficult. For example, a text which employs irony, understatement, the mode of fiction or metafictional strategies will convey meanings more indefinite, self-contradictory, unstable and multiple, and will thus pose a greater challenge to its interpreter than a non-fiction work or a realistic short story.⁹ Also the difficulty of confronting the interpretive hypothesis with textual evidence will be much greater in the former case. In principle however all art conveys ideas in intricate, original, indirect ways — so problems entailed in formulating and falsifying interpretive hypotheses are in the studies of literature and, more generally, art omnipresent. To a lesser extent the same problems can be found in research on ethnicity, the history of ideas or entertainment industry, i.e. on various areas of culture. To highlight the general character of problems discussed in the present article (and due to space limitations) differences in the process of forming or falsifying an interpretation generated by various kinds of artistic conventions will not be taken into consideration.

The key questions of the present paper can be formulated as follows (1) is the procedure of falsification of any use when it comes to interpretive hypotheses?¹⁰ (2) can the humanities dispense with it? and (3) if falsification is applicable in the humanities, is its form different there from its model form discussed above? Some authors working in the field of literary studies have already tried to answer these questions.

Eric Donald Hirsch (1967), though he appreciates the potential of falsification,¹¹ is sceptical about its usefulness, believing that most often dis-

⁹ Incidentally, according to authors who recognize the distinction, it is the context of justification (not the context of discovery) that determines the scientific character of a hypothesis (WOLEŃSKI 2003, 78–79, 85). Also, in Popper's opinion, the context of discovery should not be constrained by any methodological procedures (POPPER [1935] 2005, 8). One might well argue that by analogy this applies to the process of formulating interpretive hypotheses in the humanities: what matters is how the interpretation is justified, not how it has been created. For this reason (and to keep this publication within reasonable limits) I will not discuss here the issue of interpretation as such, though it is highly important and obviously related to the subject under discussion.

¹⁰ Apart from interpretive statements, one can find in the humanities descriptive and evaluative ones. The former are relatively unproblematic when it comes to falsification (e.g. the thesis that a given character acts as a narrator is easy to prove or refute). The latter are most controversial (Zgorzelski, for example, suggests that they be excluded from literary studies as there are no scholarly methods of investigating aesthetic values—ZGORZELSKI 1996, 237).

¹¹ Cf. Hirsch's argument that "Since we can never prove a theory to be true simply by accumulating favourable evidence, the only certain method of choosing between two hypotheses is to prove that one of them is false" (HIRSCH 1967, 180).

parate readings are both to some extent supported by (often conflicting) evidence. More precisely, Hirsch divides sciences into predictive and historical. In the former one can devise experiments which either falsify or tentatively confirm a given theory. In the latter this is rarely possible for there “falsifying data cannot be generated at will, and if such data had already been known, the two hypotheses would not have been in serious competition” (HIRSCH 1967, 181). Hence “usually neither competing hypothesis can be falsified, and both continue after their separate fashions to account for the evidence” (ibid.). Apparently literary studies are categorised by Hirsch as historical sciences. Responding to Hirsch’s doubts, one might note that (1) apart from prediction, there is retrodiction (testing a theory, one can make suppositions concerning the past and confront these with empirical evidence); (2) the *modus tollendo tollens* argument, on which falsification is based, concerns logical, not temporal, relations between p , q and their negations. In other words, though designing experiments to falsify literary interpretations is rarely feasible, one can test them by considering their logical implications and confronting these with the artefact which, though available in its entirety from the start, does not explicitly present all its meanings.

Umberto Eco is more hopeful than Hirsch. In *Interpretation and Over-interpretation* (=ECO [1992] 1994), he discusses a hypothetical case of falsification, when arguing that there are public criteria of interpretations. The misreading is ascribed to Jack the Ripper who allegedly commits his crimes inspired by the message he finds in the Gospel according to St Luke (24–25). Apparently the interpretation is “bad” (25, Eco does not use the term *falsified*) because it contradicts textual evidence (Eco does not state this openly). Later in the book, Eco explicitly refers to Popper, when arguing that “we can accept a sort of Popperian principle according to which if there are no rules that help to ascertain which interpretations are the ‘best’ ones, there is at least a rule for ascertaining which ones are ‘bad’” (52)—presumably the ones that contradict the texts they interpret.

In another book, *Six Walks in the Fictional Woods* (= ECO [1994] 2004), Eco presents in detail an authentic case of successful falsification. The falsified interpretation by Giuseppe Sermonetti reads *Little Red Riding Hood* allegorically as an alchemical tale in which mercury sulphide reacting with mercurous chloride produces pure mercury. Eco cites Valentina Pisanty, who points out that the interpretation is not supported by the text because at the end the girl’s hood, which should now be silver, is as previously red (91–92). Eco notes: “you can’t make them [texts] say the contrary to what they have

said” (92).¹² Admittedly, the term *falsification* is not used. Incidentally, Sermoniti’s interpretation serves in Eco’s text to show that fictional worlds, when contrasted with the real one, are unequivocal as regards the notion of truth, which is why “farfetched interpretations of literary texts” can be questioned (91). The cases of Jack the Ripper and Sermoniti seem to resolve Hirsch’s doubts. Apparently some misreadings can be shown to contradict textual evidence.

Interestingly, in an earlier work, *The Limits of Interpretation* (= ECO [1990] 1994), Eco raises in the context of falsification the methodological problem of language. In the section titled “The Falsifiability of Misinterpretations” Eco states that a “metalanguage” is needed

which permits the comparison between a given text and its semantic or critical interpretations. [...] this metalanguage should also allow the comparison between a new interpretation and the old ones. [...] a metalanguage does not have to be different from (and more powerful than) ordinary language. [...] The metalanguage of interpretation is not different from its object language. (60)

Whether this problem of the language is real and its solution is constructive seems debatable. Firstly, when falsifying interpretive hypotheses, one deals with meanings, i.e. both the artwork and its interpretation are in principle semantic—there is no incompatibility here analogical to that between statements and states of affairs from the definition of truth (cf. Alfred Tarski’s treatment of the correspondence theory of truth). Secondly, if the meta-language is not different from ordinary language, there seems little point in differentiating them (this is not the case of a statement concerning the truth-value of another statement when the use of metalanguage helps avoid paradoxes). On the other hand, if falsifying an interpretation, one needs to compare it with another—which is very often the case—and the two are formulated in a hermetic language full of theory-laden terms some such metalanguage might indeed be necessary.

Finally, Thomas Trzyna in his recently published *Literary Theory: Critical Rationalism as a Philosophy of Literature* (= TRZYNA 2017) insists on the significance of falsifying interpretive hypotheses in the context of critical rationalism—an approach in literary studies which he develops on the basis of ideas taken from Popper and Lakatos (including problem situations, degenerating and progressing research programs or interactions between the

¹² Clearly, Eco and Pisanty assume that the tale must be consistent; the legitimacy of this assumption can be questioned (cf. the detailed discussion of this case in TESKE 2016, 153–54).

three worlds). Trzyna believes that conjectural interpretations of literary works can be tested against empirical evidence (both textual and contextual) and either partially affirmed or falsified, depending on how well they are supported by evidence. In analogy with the sciences, some refuted ideas “will be kept as models of errors or as first approximations that contain some points of value” (24).

Two cases of falsified interpretations from Trzyna’s book will illustrate his approach in practice. The interpretive hypothesis that Karintha in Jean Toomer’s *Cane* gave birth to a stillborn child is “rejected, if not refuted” as literary evidence gives more support to the hypothesis that she killed the baby (74–79, esp. 78). The term “refuted” seems risky here. As the text does not include the scene of the baby’s birth or any direct reference to what happened to the baby afterwards, the hypothesis that the baby was stillborn cannot clash with textual evidence. Conclusive falsification of any hypotheses concerning incidents that are not depicted, either directly or indirectly, in works of fiction is impossible. The other case concerns William Shakespeare’s *Timon of Athens*. Trzyna argues that the traces of human kindness that Timon retains till the end falsify the traditional reading of the play as a study of misanthropy (127–38, esp. 136). The case is problematic because the text of the play is commonly perceived as inconsistent. Admittedly, Trzyna offers an interpretation which explains the text’s contradictions away: he reads it as a study of “imposture.” Still, one might wonder whether the traditional interpretation, though conflicting with the remains of Timon’s humanity, does not find on the whole stronger support in the text, which had better be recognized as self-contradictory. In general, hypotheses which aim to explain away contradictions (either intended or unintended) that works of art apparently exhibit might be perceived as going against the text.

It may in this context be worth noting that in Trzyna’s book falsification is not defined, nor is its procedure analyzed. The author seems to understand them very broadly, witness the following passage: “Bossuet’s account of Jesus returns to what looks like a liberal reading of Jesus as a wise teacher of a new ethic. Schweitzer falsifies Bossuet’s views by arguing that there is very little evidence that Jesus taught his disciples much or that his teaching was any less apocalyptic than that of John the Baptist” (176). Strictly speaking, shortage of evidence in favour of a hypothesis does not constitute evidence against it, and does not correspond to the standard notion of falsification. This broad interpretation of falsification might explain why in Trzyna’s book the verdict that a hypothesis is “falsified” is sometimes

moderated by the phrase “or cast aside” (78, cf. Karantha’s case), or weakened to “cannot be completely correct” (136, cf. Timon’s case).

Interestingly, in some passages Trzyna speaks of falsifying works of art (not their interpretations). When arguing in favour of this approach, he mentions first Yvor Winters, who “attempted to judge poems by a process of falsification. Robert Frost’s poems, in his view, were less than they could be because Frost was intellectually relativistic and lax,” and then non-professional readers who “judge works false” if they find their characters or incidents implausible (as happens, for example, in the case of the social advance through matrimony of the heroines in *Pride and Prejudice*) (17). The phrasing of this passage in Trzyna’s book is highly tentative, but the idea is repeated (again in cautious language) in the Conclusion (191–92, 195). Although art performs the cognitive function, art’s methods are not exactly scientific and it seems risky to claim that elements of fictional realities can be “falsified” analogically to interpretive hypotheses. Further, as regards ideas offered in works of art, they often concern morality (cf. the example of Frost’s poetry, above); critique of another person’s moral beliefs can hardly be comprised in the notion of falsification, even if falsification is taken very loosely.

To sum up, the works of Hirsch, Eco and Trzyna show that there are scholars in the field of literary studies who find the procedure of falsification desirable and at least in some cases applicable in that field. However, the cases they discuss reveal that the special character of literary works may generate complications in the procedure and weaken its force.¹³ In particular, when a text conveys meanings which are multiple, indefinite or self-contradictory it may be very difficult to prove any of its interpretations conclusively wrong.

FALSIFICATION IN READING EXPERIENCE

Apart from explicit references to falsification in literary studies, one can also find implicit references in discussions of ordinary reading experience.

¹³ For yet another recent case of explicit reference to falsification in literary studies, see Cynthia Edenburg’s paper, “Falsifiable Hypotheses, Alternate Hypotheses and the Methodological Conundrum of Biblical Exegesis” (= EDENBURG 2017), in which she insists on the importance of falsification and confirmation in Biblical Studies when interpreting texts or analyzing their origin and composition so that the studies can yield new knowledge and be considered scientific. Also in her book, *Dismembering the Whole: Composition and Purpose of Judges 19–21* (= EDENBURG 1970), Edenburg refers to the criterion of falsifiability when assessing the epistemic value of hypotheses (10, 171).

Thus Shlomith Rimmon-Kenan in *Narrative Fiction: Contemporary Poetics* (= RIMMON-KENAN [1983] 1999) claims that reading a literary text

can be seen as a continuous process of forming hypotheses, reinforcing them, developing them, modifying them, and sometimes replacing them by others or dropping them altogether. [...] By the end of the reading process, the reader usually will have reached a “finalized hypothesis,” an overall meaning which makes sense of the text as a whole. (121)

In the process the reader makes use of various “models of coherence” — reality models and literature models (119–25). This interpretation of readerly experience comes close to Trzyna’s interpretation. Trzyna speaks of readers who “form hypotheses about the meaning and purpose of various aspects of a literary work, or a group of works; [...] then test their hypotheses, provisionally confirming some and falsifying others” (TRZYNA 2017, viii).

Thus, though the reader is not a professional scholar and need not be aware of methods entailed in his or her cognitive processes, the activity of reading and making sense of a work of literature apparently involves forming and testing interpretive hypotheses. In some cases the process may actually entail falsification *sensu stricto* (e.g. the hypothesis “X is the murderer,” formed by the reader of a detective novel, from which it can be inferred that “X does not have a sound alibi,” will be contradicted by the textual evidence “X’s alibi cannot be questioned”). There is anyway a clear intuition here that an interpretive hypothesis should not contradict any important element of the text, and that the lack of consistence between them should result in the hypothesis being revised or dropped. This kind of reading strategy echoes Augustine’s instructions presented in *De doctrina christiana*: “any interpretation given of a certain portion of a text can be accepted if it is confirmed by, and must be rejected if it is challenged by, another portion of the same text” (qtd. in ECO [1992] 1994, 65). Apparently the non-professional (and at the same time classical) approach to interpretation, is recognized by contemporary narratology (viz. Rimmon-Kenan).¹⁴

¹⁴ Obviously this approach would be unacceptable for deconstructionists and poststructuralists, for whom contradictions deriving from language make all texts self-contradictory thus preventing their interpretation.

FALSIFICATION IN THE TEACHING PRACTICE

Contrary to what the above discussion might suggest, it is in fact only rarely that one finds a reference to falsification in literary studies (and in the humanities in general). This might partly be so because interpretations of artefacts that scholars present in public have been produced in accordance with the readerly strategy discussed above, i.e. with rare exceptions these interpretations, however imaginative they might be, do not contradict textual evidence (especially when this evidence is in itself consistent). To understand the need for falsification of interpretive hypotheses in literary studies but also philosophy or history of art, it might be advisable to turn to the process of education and examine the work of teachers whose task is to introduce students to the process of interpretation. The following section of the paper is based on my own didactic experience of that kind.

When teaching the Introduction to Literary Studies course, I needed to correct and evaluate my students' interpretations. One of the texts I asked my students to read was "The Japanese Quince" by John Galsworthy (= GALSWORTHY [1910] 1970). The story is a sad reflection on the early 20th-century businessmen's life style, which deprives them of contact with themselves, with nature, with other people. The two characters, Mr Nilson and Mr Tandram, both working in the City, troubled by the smell of the title plant go for a walk in the garden but having met each other, ashamed and upset, retreat to their homes. (Admittedly, this is an interpretation, not the text itself. I include it here for the reader's convenience while inviting anyone unfamiliar with the text to get acquainted with it before reading on).

Most of the interpretations I received were acceptable, but some conflicted with textual evidence. Let me briefly discuss two of these. One student suggested that the story conveys the idea that "People can find peace in nature." Presumably they can, but in the story nature evokes in people anxiety, not peace, most probably by embodying the spontaneous joy of life that they have lost and forgotten. The student's reading contradicts the text. In this case p equals "The story says that people can find peace in nature," q — a testable hypothesis that can be derived from it — might take the following form: "A character in the story experiences peace in contact with nature, or someone — a character or a narrator — argues that this is possible, or it might reasonably be argued that the form of the story offers the reader this kind of experience." This hypothesis confronted with the text proves false: "It is not true that 'A character in the

story experiences peace in contact with nature, or someone—a character or a narrator—argues that this is possible, or it might reasonably be argued that the form of the story offers the reader this kind of experience.” In accordance with the argument form *modus tollendo tollens* $[(p \rightarrow q) \wedge \sim q] \rightarrow \sim p$, the negation of q implies the negation of p : “It is not true that ‘The story says that people can find peace in nature.’”¹⁵ The other misinterpretation reads as follows: “The man who admires the tree wants to give [a] name [to] the tree because he thinks that the tree is the most beautiful and should have [a] name because thanks to this [it] will be known around the world.” Indeed, the tree’s name is an important element in the story: both characters are curious what the name might be, they find the label which says “Japanese Quince,” which satisfies their curiosity. There is no need here to derive a testable hypothesis from the interpretation, the interpretation itself is sufficiently specific to contradict the text (it actually comes close to an inadequate paraphrase of the text, which incidentally might explain why this interpretation is relatively easy to falsify). In either case, there might be no other way of explaining what is wrong with the readings in question except by indicating that indirectly or directly they contradict textual evidence.

CREATIVE MISREADINGS

Having argued that the procedure of falsification may sometimes be indispensable when teaching the art of interpretation, I want to consider now an area in which falsification might be dispensed with. More precisely, it should not be used to disqualify intentional misreadings, though it may be used to identify contradictions between such misreadings and the texts they “misread.” Samuel Beckett’s and Hans Blumenberg’s readings of René Descartes’ *Meditations*, discussed by Agata Bielik-Robson in her collection of essays *Cienie pod czerwoną skalą* (2016), will serve here as a case study, though in Bielik-Robson’s book they are not given the status of creative misreadings and I have no evidence suggesting that this status was ever

¹⁵ Admittedly, there is a moment when Mr Nilson and Mr Tandram smile looking at the tree (which implies a kind of well-being, possibly entailing a sense of peace), but this is one moment contrasting with, initially, the feeling of anxiety and, eventually, a sense of awkwardness extensively thematized in the story. Further, the story is not written in the postmodern convention, so that one can hardly argue that by showing how people are disturbed by contact with nature the text actually communicates the contrastive idea of peace they might theoretically experience.

attributed to them by their authors. However, the term *creative misreadings*, which Bielik-Robson uses in other parts of her book, seems to capture the character of the interpretations in question.

In the essay devoted to Beckett's *Unnameable*, titled "Beckett albo gnoza kartezyjska. Wokół *Nienazywalnego*" [Beckett or Cartesian Gnosis: *The Unnamable*] (= BIELIK-ROBSON [2010] 2016), Bielik-Robson analyzes the presence of gnostic ideas in Beckett's book. Beckett's and Blumenberg's gnostic readings of Descartes constitute her initial point of reference. Blumenberg's interpretation, as summarized by Bielik-Robson, focuses on Descartes' hypothesis of a malicious demon who deludes man. The hypothesis is not read traditionally, as a part of mental experiment that should help the experimenter identify the solid grounds of human cognition. Instead, it is taken to capture the horrifying experience of being at the mercy of God who is amoral and indifferent towards His creation. Once conceived, the hypothesis cannot be refuted; one can have no certainty as regards one's own existence or reality. The only way to assert one's existence is by defying the deceiver, breaking the bond of dependence. The desperate act of resistance constitutes the I (qtd. in BIELIK-ROBSON [2010] 2016, 75–84). As Bielik-Robson puts it: "[...] Descartes based the certainty of his existence on the agonistic relationship with the 'powerful beguiler' [...]" (90).

During a seminar devoted to her book held on 16th December 2016 at John Paul II Catholic University of Lublin, asked about the nature of the essays collected there, Bielik-Robson defined their status as artistic, not scholarly. As such, also those essays which cite or offer interpretations contradicting textual evidence may be appreciated as exercises in imagination or ways of gaining precious insight into the human experience by considering "textual counterfactuals." Indeed, Blumenberg's reading of Descartes seems to capture important aspects of the human condition, such as the irrefutable nature of radical scepticism or anguish that epistemic uncertainty may cause, even if Descartes' text is in fact misread.

In outline the course of Descartes' argument can be presented as follows. His declared aim is "to establish any firm and permanent structure in the sciences." In this context he considers the possibility of a deceptive demon who manipulates people into believing that the world and other people exist. He then *assumes* (this clearly is a mental experiment) that this is the case. In spite of his own suggestion, that lack of certainty might be the only certain thing, Descartes claims next that he can be certain of mental processes in his own mind and therefore of his own existence. However weak and faulty

Descartes' reasoning may be,¹⁶ it is clear that he has no doubts that he is "a thing that thinks." Next, Descartes argues that God exists. The concept of God involves perfection, which excludes the possibility that God deceives man. God's existence in turn can be inferred since (1) Descartes entertains the idea of God and cannot be its source, (2) Descartes exists and cannot maintain his own existence, (3) God's existence is part of God's essence. Owing to God, who ensures that Descartes' mind is not in this respect mistaken, Descartes can also be certain of the existence of the material world. In other words, very clearly in his *Meditations* Descartes argues that a good God exists and that all creatures owe their existence to God, with whose help they can gain certainty as to the most important things they need to know.

Hopefully, the above discussion shows that the text of *Meditations* contradicts (and thereby falsifies) Blumenberg's interpretation.¹⁷ Still, rejecting Blumenberg's interpretation as false would be imprudent. The gnostic vision of life, ascribed by Blumenberg to Descartes (and in its more radical version ascribed by Bielik-Robson to Beckett) expands the set of possible interpretations of human life and is thereby precious. Generally, creative misreadings constitute the special case of interpretations which are not devoid of epistemic value, although they contradict textual evidence, as long as they do not pretend it is otherwise.

CONCLUSION

On the basis of the above discussion and with reference to the Popperian theory of science, one might tentatively formulate the following conclusions.

- ◆ Though it is often difficult to implement and should not be treated as conclusive or sufficient, falsification is an important epistemic procedure. It helps ensure that theories/hypotheses which (seem to) contradict empirical data (artefactual evidence included) or theories/hypotheses with very loose contact with reality (empirical data) can be classified as in all likelihood false (a misinterpretation) or unscientific, respectively.

¹⁶ In Meditation III, for instance, Descartes dogmatically claims that everything he perceives very clearly and distinctly is true, but the claim is clearly risky.

¹⁷ Strictly speaking, to falsify Blumenberg's interpretation of Descartes, one should cite the two texts in original—not their paraphrases and translations. But the purpose of the present discussion is to consider the issue of creative misreadings and for this purpose, and the English-language reader's convenience, the solution adopted here is, I hope, acceptable.

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- ◆ The use of falsification is highly limited in the humanities. In particular, interpretive hypotheses are difficult to falsify on account of the richness, ambiguity and instability of the meanings of artefacts. Admittedly, this constitutes a serious problem as meanings often constitute the essence of artefacts and are often the primary object of humanistic research.
 - ◆ Irrespective of the limits of falsification, interpretive hypotheses which clearly contradict the works they interpret (unless the artefact is self-contradictory) cannot aspire to truth. Creative misreadings, however, should not be treated as epistemically worthless or eliminated as erroneous. Further, theories which are highly abstract (devoid of contact with empirical data), and hence unfalsifiable, should not on that account be dismissed as meaningless or insignificant.
 - ◆ When dealing with artefacts which are verbal, the *modus tollendo tollens* argument form need not always be invoked—the contradiction between an interpretation and the text may in some cases be direct. However, when texts are literary, the apparent (literal) meaning of the text may be different from, or even opposed to, its real meaning generated by means of all kinds of artistic strategies, such as irony, understatement, the mode of fiction or metafictional strategies. This is why to detect some erroneous interpretations, one may need not only *modus tollendo tollens* but also another interpretation of the artefact in question, one that gives justice to the artefact's meaning. Obviously, the notion of *the interpretation that gives justice to the artefact's meaning* is highly problematic as there are no procedures ensuring conclusive verification. In such situations, contradiction, when it appears, obtains between two interpretations, each of which might in theory be faulty, not between an interpretation and the text, which taken as “pure empirical data” is by definition faultless. As a result this kind of falsification is highly uncertain.
 - ◆ Falsification in the humanities (as elsewhere) needs to be complemented by other epistemic procedures evaluating the explanatory power of theories, the strength of empirical material supporting them, their compatibility with other theories of high epistemic status, their internal consistency, simplicity, originality, analytical productivity (ability to inspire new artefacts or generate new ideas) and predictive power. This assessment of theories should be made with reference to their competitors.
 - ◆ Taking the special character of artefacts into consideration, one should recognize the dual character of the humanities: partly cognitive—exploration of culture; partly artistic—creation of culture. When the object of

investigation is the human mind and its products, the separation of creation and cognition is more difficult than elsewhere.

In the above discussion, I have tried to note differences between falsification in the natural sciences and in the humanities, especially with reference to interpretive hypotheses. The following diagram collects them together as well as introduces some that have not been mentioned so far.

Falsification in the natural sciences and in the humanities (the differences are marked in bold)

FEATURES OF FALSIFICATION	THE NATURAL SCIENCES	THE HUMANITIES
1) the basic formula	$[(p \rightarrow q) \wedge \sim q] \rightarrow \sim p$ One falsifies a theory p by indicating a contradiction between a hypothesis q derived from the theory and the falsifier $\sim q$.	$p \wedge \sim p$ or $[(p \rightarrow q) \wedge \sim q] \rightarrow \sim p$ One falsifies a theory p by indicating a contradiction between a hypothesis q derived from the theory or between (elements of) this theory and the falsifier $\sim q$.
2) the tested theory	universal laws (rarely statements concerning unique phenomena) – theories put forward to solve specific problems	statements concerning either general tendencies in culture or unique objects Some theories attempt to solve specific problems; others may aim at a better understanding of an artefact.
3) the testable hypothesis	a statement derived from a theory, often predictive (or retrodictive)	either part of a theory or a statement derived from a theory, rarely predictive or retrodictive
4) the falsifier	ideally, pure empirical data; in practice, theory-laden empirical data (which have the form of statements on intersubjectively observable, repeatable states of affairs, often obtained in experiments) or even competitive theories (cf. KOTERSKI 2004, 60)	ideally, empirical data (e.g. the text of an artefact); in practice, almost always interpretations of artefacts (which take the form of intersubjectively comprehensible statements)
5) the assumption of the uncontradictoriness of the investigated object	adopted without any restrictions	in some areas (e.g. post-modern artefacts) impossible, always questionable
6) complications	inadequacy in practice of the formula <i>modus tollendo tollens</i> The actual formula takes the following form:	inadequacy in practice of the formula <i>modus tollendo tollens</i> The actual formula takes the following form:

	$[(p \wedge X \rightarrow q) \wedge \sim q] \rightarrow \sim (p \wedge X)$ X stands for all assumptions that have to be made in order that from the theory p a hypothesis q can be derived — the background knowledge, initial conditions, supporting hypotheses etc. ¹⁸	$[(p \wedge X \rightarrow q) \wedge \sim q] \rightarrow \sim (p \wedge X)$ X stands for all assumptions that have to be made in order that from the theory p a hypothesis q can be derived — the background knowledge, supporting hypotheses etc. Further complications in the procedure result from the object of investigation—meanings and values — which in many artefacts are multiple, ambiguous and unstable.
7) language	problematic when two theories conflict with each other and the terms they use are not mutually translatable	problematic when two theories conflict with each other and the terms they use are not mutually translatable; also problematic when meanings and values inherent in artefacts cannot be fully rendered in any verbal interpretation
8) consequences of a successful falsification	being inconclusive, falsification lowers the falsified theory's status but should not automatically result in its rejection	being inconclusive, falsification lowers the theory's epistemic status (unless it is intended as a misreading) but should not automatically result in its rejection

To conclude, in the humanities, as in the natural sciences, there seem to be no procedures ensuring conclusive verification or falsification (except for very rare situations), but justification (positive and negative) of scholarly interpretations of artefacts (and other hypotheses concerning culture) is by all means crucial. Further, scholars' awareness of the degree of falsifiability (empiricism) of their theories/theses and their conscious concern that interpretations be consistent with artefactual evidence might help in the rational pursuit of objective knowledge of culture.¹⁹

¹⁸ The formula comes from Koterski's book (KOTERSKI 2004, 41) but the symbols have been changed to match the original formula.

¹⁹ I would like to take this opportunity to express my gratitude to prof. Monika Walczak for her critical and insightful comments on the project.

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FALSYFIKACJA HIPOTEZ INTERPRETACYJNYCH W NAUKACH HUMANISTYCZNYCH

Streszczenie

Artykuł rozważa możliwość stosowania procedury falsyfikacji, która polega na testowaniu teorii przez konfrontację wyprowadzonych z niej hipotez z danymi empirycznymi, w badaniach nad kulturą, w szczególności podczas oceny wartości hipotez interpretacyjnych. Na falsyfikację, której — zdaniem K. Poppera i jego zwolenników — nauki przyrodnicze zawdzięczają swój sukces, patrzy się bardzo podejrzliwie, kiedy obiektem badań są znaczenia i wartości, a nie zjawiska materialne. Jeśli przez interpretację rozumieć rekonstrukcję znaczenia artefaktu, wówczas do oczywistych wyzwań, jakie pojawią się podczas falsyfikowania hipotez interpretacyjnych, należą wielość, niestabilność i zagadkowość (niejasny albo wewnętrznie sprzeczny charakter) znaczeń zawartych w artefaktach. Wszystko to wydaje się nie wykluczać możliwości rozpoznania jako błędnych hipotez interpretacyjnych, które w sposób wyraźny są sprzeczne z (wewnętrznie niesprzecznym) materiałem artefaktowym. Tak rozumiana falsyfikacja wydaje się niezbędna w kontekście edukacyjnym. Jednocześnie trzeba przyznać, że w praktyce (w przeciwieństwie do logicznej formuły, jaka leży u podstaw tej procedury) falsyfikacja nie jest konkluzywna, a trudności związane ze stosowaniem falsyfikacji jeszcze wzrastają, gdy badanym obiektem są znaczenia i wartości. Jest to jeden z powodów, dla których falsyfikacja w naukach humanistycznych (jak gdzie indziej) potrzebuje być uzupełniona przez inne procedury epistemiczne, podczas gdy status badań literackich czy historii filozofii byłoby najlepiej postrzegać jako częściowo poznawczy (i, o ile badania prowadzone w obrębie tych dyscyplin są empirycznie testowalne, także naukowy), a częściowo twórczy (artystyczny).

FALSIFICATION OF INTERPRETIVE HYPOTHESES IN THE HUMANITIES

Summary

This paper reconsiders the possibility of applying the procedure of falsification, which consists in testing a theory by confronting hypotheses derived from the theory with empirical data, in the studies of culture, in particular when evaluating interpretive hypotheses. Falsification, to which, according to Popper and his followers, the natural sciences owe their success, is viewed with strong suspicion when the object of investigation is meanings and values rather than material

phenomena. If by interpretation one understands reconstruction of the artefact's meaning, obvious challenges when falsifying interpretive hypotheses include: the multiplicity, instability and ambiguity (indefiniteness or self-contradictory character) of meanings inherent in artefacts. All of this does not seem to exclude the possibility of identifying as misreadings interpretive hypotheses which clearly contradict relevant (non-contradictory) artefactual evidence. Falsification thus understood seems indispensable in educational contexts. At the same time, it must be admitted that in practice (as contrasted with the logical formula which underlies the procedure) falsification is inconclusive, and the application of the procedure is further complicated when meanings and values are the object of research. This is one of the reasons why falsification in the humanities (as elsewhere) needs to be complemented by other epistemic procedures while the status of literary studies or history of philosophy might best be perceived as partly cognitive (and in so far as the research conducted in these disciplines is empirically testable, also scientific) and partly creative (artistic).

Słowa kluczowe: falsyfikacja; Popper; interpretacja; hipoteza interpretacyjna; dzieło sztuki; kultura.

Key words: falsification; Popper; interpretation; interpretive hypothesis; artwork; culture.

Information about Author: Dr hab. JOANNA KLARA TESKE — Department of English Literature and Culture, Institute of English Studies, John Paul II Catholic University of Lublin; address for correspondence: Instytut Filologii Angielskiej KUL, Al. Raławickie 14, 20–950 Lublin; e-mail: jteske@kul.pl