



# Are Descriptions Really Descriptive? An Experimental Study on Misdescription and Reference

Wojciech Rostworowski<sup>1</sup>  · Natalia Pietrulewicz<sup>2</sup>

Published online: 20 September 2018  
© The Author(s) 2018

## Abstract

This paper presents an experimental study on definite descriptions. According to the classical views, a definite description, i.e., a phrase of the form “the F”, has – roughly speaking - purely descriptive semantics, that is, it designates the object which uniquely (opt. uniquely in a context) satisfies the description. However, as several philosophers including Keith Donnellan have argued, there are uses of definite descriptions on which these expressions do not seem to designate objects which satisfy the descriptions. Namely, a description may refer in some circumstances to an object which does not have the property from the description. This argument is called “the Argument from misdescription” and it is raised against the classical views on the semantics of definite descriptions. In our paper, we present an experimental study on misdescription and explored reactions of ordinary users of language to various statements involving misdescriptions. The results of our research indicate that the intuition of ordinary speakers is consistent with the prediction expressed in the Argument from misdescription. We argue that the most common pragmatic explanation of misdescription, appealing to Gricean distinction between saying and meaning, is unconvincing. We vote for an alternative semantic account of definite descriptions, on which a description “the F” designates an object being F, which is at the same time the most salient individual according to a contextually established ranking of salience.

---

✉ Wojciech Rostworowski  
wrostwor@wp.pl

Natalia Pietrulewicz  
npietrul@gmail.com

<sup>1</sup> Faculty of Philosophy and Sociology, University of Warsaw, Krakowskie Przedmieście 3, 00-927 Warsaw, Poland

<sup>2</sup> Institute of Philosophy, University of Warsaw, Krakowskie Przedmieście 26/28, 00-927 Warsaw, Poland

In recent years, philosophers of language have started to employ the methods of experimental psychology and sociology in the investigations of one of the central issues in their discipline: the nature of reference. Most of the research focuses on proper names and the question whether the intuition of ordinary users of language supports the classical “descriptivist” view (cf. Searle 1958) — according to which the referent of a proper name is determined by an associated (cluster of) definite description(s) — or the causal-historical picture advocated by Kripke (1980) or Devitt (1981, 2015). The most prominent experiments in this area include, among others, the study of Machery et al. (2004; see also Machery et al. 2015) where the authors demonstrate a significant cross-cultural difference between folks’ semantic intuitions; namely, they discover that Westerners are essentially more likely than East Asians to report intuitions that are consistent with the causal-historical view. There is also some experimental research on general kind terms (e.g., Genone and Lombrozo 2012) whose results do not provide a clear support for any of the main competitive views — i.e., descriptivism or causalism — and suggest a need of a hybrid account of reference for those kinds of expressions.

In our paper, we present experimental research on definite descriptions which aims to address a classic philosophical problem of misdescription.<sup>1</sup> Briefly, the problem is whether a descriptive content of a particular description-token used in a context is essential in determining the referent of that description-token.<sup>2</sup> As some philosophers have suggested, a description “the *F*” as used by a person on some occasions may refer to — in some sense of “reference” — an object which is not an *F*. In our study, we have investigated whether and to what extent the referential competence of ordinary speakers supports the aforementioned suggestion, i.e., the claim that a person may in a sense refer to an object, in spite of using an incorrect description. The results of our experiments generally confirm this claim but at the same time show that the strength of the supporting intuition depends on some background assumptions. As we will argue, the results of our experiment are incompatible with the classical semantic theories of definite descriptions and they cannot be explained away by a pragmatic theory in style of Grice. We propose an alternative approach to the semantics of definite descriptions based on the notion of salience (cf. Lewis 1979, and more recently von Heusinger 2013).

The course of our paper is as follows. In Section 1, we introduce the reader to Donnellan’s distinction between the attributive and referential uses of definite descriptions and the “Argument from misdescription”. Section 2 briefly discusses our motivation for empirical verification of the premises of that argument. In Section 3, we present our experimental study on misdescription and — in Section 4 — we address the

<sup>1</sup> We are not sure whether there is any research on definite descriptions in the field of the experimental *philosophy* of language, yet there is obviously a lot of experimental work on these expressions done by psycholinguists and psychologists (for example, with respect to the phenomenon of “repeated name penalty” or the anaphoric pronoun resolution; see, e.g., Almor 1999, Frazier 2006 or, more recently, Peters et al. 2016.) We are grateful to an anonymous reviewer for bringing this fact to our attention.

<sup>2</sup> One remark is at hand here. It is controversial to talk about “the referent” of a definite description since — according to one of the most famous theories — these expressions are devices of quantification and not reference (Russell 1905; Neale 1990; Bach 2004). However, for the sake of simplicity, we use the term “the referent” in a broad sense to cover what counts as a genuine referent of a definite description for the so-called “Frege-Strawson” approach (cf. Elbourne 2013), as well as what Russell calls a “denotation” of a definite description, i.e., an object which uniquely has the property from the description.

question whether the results of this study are compatible with the classical views on the semantics of definite descriptions. We consider the interpretation of the results in line of these views, which attempts to explain away apparent inconsistencies in pragmatic terms. We argue that this pragmatic strategy is problematic in the case of the attributive uses (Section 5). Furthermore, we present a second experimental study which provides evidence against the central claim of the pragmatic strategy — i.e., that the respondents' intuition about misdescription statements is related to the *speaker's* meaning and not the *semantic* meaning (Section 6). In the final Section 7, we outline a theory of reference based on salience and argue that this kind of approach may provide a convincing interpretation of the results of our experimental study on misdescription.

## 1 Argument from Misdescription

The issue of misdescription is related to Donnellan's (1966, 1968) distinction between the "attributive" and "referential" uses of descriptions.<sup>3</sup> According to Donnellan, when a speaker uses "the *F*" attributively, she talks about "whoever" or "whatever" is the *F* (but see further paragraphs). On the other hand, by using "the *F*" referentially, the speaker wishes to talk about a particular object she "has in mind" and the description is only a device of drawing attention of her audience to this particular object (cf. 1966: 285). Donnellan claims that in the case of the referential use, it is not essential for the description to be true about this particular object the speaker has in mind and the speaker may state the truth about this object even if the description does not apply to it. His famous example illustrating this claim is the following:

Suppose that Jones has been found guilty of Smith's murder. During the trial, Jones begins to behave strangely, e.g., tries to bite off his cuffs, and one of the attendants, Brown, says to another: "Look! The murderer of Smith is trying to bite off his cuffs. He is insane", having clearly Jones in mind. Jones is indeed insane, but – suppose – that he did not murder Smith and the actual murderer is quite sane.

As Donnellan observes, there is a sense in which Brown is speaking about Jones and tells the truth. The most straightforward way to explain this observation is to say that the description "the murderer of Smith", as used on this occasion, does not refer to the person who uniquely murdered Smith but simply to Jones. If this is correct, then the classical views on the semantics of definite descriptions — such as the one of Russell (1905) or Strawson (1950) — are incorrect since they both assume that the truth-value of a sentence of the form "The *F* is *G*" wholly depends on the condition of a unique object being *F*.<sup>4</sup> Or so Donnellan claims.

<sup>3</sup> From now on, by saying "description(s)", we will have (a) definite description(s) in mind.

<sup>4</sup> However, these two theories — the Russellian and the Strawsonian view — differ in their predictions about the truth-value of the sentence under the assumption that there is *no* object being *F*.

Following some philosophers (e.g., Ludlow 2013), let us call the presented reasoning against the classical views on descriptions “the Argument from misdescription”. Most of the commentators of Donnellan’s argument express doubts about the intuition underlying the central claim of the argument — that what Brown says is *true*. Rather, they argue that the intuition in such cases is genuinely ambivalent. Namely, we are inclined to say that Brown expresses something false and something true at the same time, given that Jones is indeed insane (e.g., Neale 1990: 91, Ludlow and Neale 2006: 19). Let us note here that such a conclusion is problematic for the classical views on descriptions too because they cannot — as they stand — explain the intuition that the statement of Brown is even partially true.

However, not so many philosophers have observed that a similar argument can be employed to demonstrate that by using a description attributively, a speaker may refer in some sense to an object which does not satisfy the description. Donnellan (1968: 209) considers an example where upon finding the body of Smith, a person exclaims: “Smith’s murderer is insane”. In the example, the speaker has no particular person in mind as Smith’s murderer. Then Donnellan asks us to evaluate this statement under the assumption that (i) Smith died of natural causes but (ii) had indeed been attacked before his death and the evidence that led the speaker to attribute insanity to Smith’s murderer is still good evidence that his assailant is insane. “In a sense the speaker has scored a near miss” says Donnellan and thus suggests that the speaker expresses a truth about the assailant. Similarly, Margolis and Fales (1976: 294) present a scenario where a blindfolded kidnapping victim is kicked by one and only one of his three captors but is not otherwise physically abused. When the blindfold is removed, he says to the three, not knowing which one is responsible, “The man who punched me is a coward”. According to the authors, the victim surely means to refer to the one and only one man who actually *kicked* him and the fact that an (attributive) description is not satisfied by any individual does not entail that the speaker has failed to refer to anything.

The recognized phenomenon is perhaps somehow different from the misdescription involving referential uses, yet there is an analogy between the two cases. So even by using a description attributively, a speaker may refer — or partially refer — to an object which does not satisfy it. Altogether, it seems that the Argument from misdescription may be used against the classical views on the semantics of descriptions in their referential, as well as their attributive uses.

## 2 Empirical Assumption of the Argument

The crucial assumption of the Argument from misdescription is the claim that while committing a misdescription, the speaker may state something true about the misdescribed object. Schematically, the situation of a misdescription can be described as follows (independently of the kind of use): a speaker *S* makes a statement of “The *F* is *G*” based on some evidence concerning a particular object *d* and *d* is indeed *G* but does not have property *F*; there actually exists no *F* or there is one, yet the evidence of *S* is completely unrelated to it. In such a case, there is a pull to say that *S* tells the truth in a sense and, based on this premise, we are supposed to conclude that “the *F*” refers/partially refers to *d*. The question arises what character this premise has and how it should be justified.

In our view, there are two possible ways in which we may interpret the aforementioned premise of the Argument from misdescription. Firstly, we may say that it is the voice of intuition; that is, the evaluation of a statement with a misdescription is a spontaneous and perhaps theory-laden judgment rested on some insight into the reality of language. Secondly, we may think that the assumption is a prediction of the evaluation which an ordinary user of language would make about a case of misdescription. In this interpretation, the assumption says that it is most likely that an ordinary user of language – when confronted with a situation of a misdescription in real life – would comment on the speaker’s statement in such a way: “Well, you are *right* about *d*, but it is not actually an *F*”, “You are *correct* in some sense, but in some sense wrong” etc. In sum, we can think of the assumption of the Argument of misdescription as a voice of intuition or an (attempt at) approximate generalization of the evaluations made by ordinary speakers.

We believe that no matter how we interpret the assumption, it needs to be confirmed by means of empirical testing. If we take it to be a generalization of the folks’ supposed reactions, the need for empirical verification is obvious: in order to make a reliable generalization, we need to check what evaluations ordinary speakers *actually* make about the cases of misdescription. Likewise, we need experiments even if we take the assumption of the Argument from misdescription to be the voice of intuition. Contemporary discussions about philosophical methodology have put in serious doubt the method of appealing – by a single philosopher – to his or her own intuition while putting forward an argument. As the experimental approach insists, it is methodologically proper to check what the intuitions of a wider group of people are, not only those of professionals (see Machery 2012). Besides, there is no agreement between philosophers themselves on what the adequate verdict about the misdescription cases should be. As has already been mentioned, Donnellan suggests that in spite of using an incorrect description, the speaker actually says the truth, whereas Neale and Ludlow insist that intuition is ambivalent. In light of such a divergence, it is instructive to check what the dominant inclination really is.

To conclude, we believe that the main assumption of the Argument from misdescription — saying that a person committing a misdescription partially expresses the truth — needs to be tested empirically. In the subsequent section, we present the first part of the experimental research on that issue.

### 3 Experimental Study Part I: Misdescription

#### 3.1 Experimental Strategy and Hypotheses

The first experiment was aimed to verify whether the circumstance of misdescription affects people’s truth-value judgement of a statement in the way indicated by the Argument from misdescription. Our experimental strategy was to compare the cases with misdescriptions to analogical cases where no phenomenon of misdescribing was involved. The latter were the cases where a speaker uttered a statement of the form “The *F* is *G*” and her referential intention was clear, that is, the intended referent was identical to the object satisfying the description. Yet, this object did not satisfy predicate

“*G*”. In such a case, the speaker’s statement seems to be *simply* false. Let us call such cases the “clear-reference” cases. According to the Argument from misdescription, if there is a misdescription involved — namely, a speaker of “The *F* is *G*” refers with using “the *F*” to an object which is not *F* but is indeed *G* — then her statement has an element of truth. This claim can be thus formulated as a prediction that the condition of misdescription will significantly increase people’s level of acceptability of the claim that “The *F* is *G*” is true. In other words, people will tend to agree more that such a statement is true in a misdescription case than in a clear-reference case. Call this prediction the “Misdescription hypothesis”.<sup>5</sup> In short, the first experiment aimed to establish whether the Misdescription hypothesis is correct.

## 3.2 Method

### 3.2.1 Participants

The study involved 333 participants. Out of this number, the responses of 26 participants were excluded from our analysis because these respondents did not report English as their first language. The study was conducted online. All participants were recruited via Clickworker and paid EUROS 0.30 each.

### 3.2.2 Material

We presented the participants of our study with short fictional stories where a certain character formulated a statement containing a description. In line with our strategy indicated above, there were two general kinds of vignettes: the ones presenting a clear-reference case and the other ones with misdescription. With regard to the latter, we distinguished two different circumstances of misdescription:

- where there existed no satisfier of the description at all (No-object condition),
- where there existed a satisfier of the description but it was not identical with the misdescribed object and clearly irrelevant to the context (Irrelevant-object condition).

This classification was crossed with the attributive/referential distinction. As a result, we got five different conditions: one with clear reference (I) and four with misdescription, namely: referential use + No-object (II), referential use + Irrelevant-object (III), attributive use + No-object (IV) and attributive use + Irrelevant-object (V). Each condition was represented by one vignette.<sup>6</sup>

<sup>5</sup> It is not enough to require for the Misdescription hypothesis to be confirmed that people *partially* agree that the statement under evaluation is true. It is because people may tend to see something true in almost any statement. Hence, even if we had confirmed our hypothesis, it could be the case that the misdescription condition does not essentially affect the truth-value judgements. For this reason, we decided to compare the evaluations of misdescription cases with the evaluations of analogical cases where no phenomenon of misdescription occurs. (This was suggested to us by an anonymous reviewer at an early stage of preparing this article.)

<sup>6</sup> All vignettes from this study are contained in the Appendix, Part 1.

### 3.2.3 Procedure

Our study was divided into two separate questionnaires. The first one contained a vignette with a clear-reference case (together with some additional material, eventually not used in the current experimental design). The second one presented our respondents with the misdescription vignettes. In each questionnaire, the participants got exactly one story (randomly assigned) and they were asked to express their opinion on the statement “What X said was true” where “X” replaced the name of a character who used a description in a given story. They rated their agreement by picking a point on a line segment ranging from “Disagree” to “Agree”, using a slider, so they could express various degrees of their confidence that an utterance of a protagonist was true.<sup>7</sup> There were no numerical labels on the slider, nor any other signs or words apart from the aforementioned ones. Yet, the obtained data were interpreted numerically, as the employed survey tool treated the line segment as a six-degree scale (where 0 corresponded to “Disagree” and 5 to “Agree”). Both studies were conducted online on the platform of Qualtrics.

### 3.3 Results

Table 1 below presents descriptive statistics, i.e., mean values, standard deviations, minimum and maximum scores on the degree of acceptability scale in all five conditions tested. The table also presents values of the Shapiro-Wilk test of normality and values of skewness and kurtosis metrics.

Distributions of the scores in all five conditions differed significantly from the normal distribution, so verification of the formulated hypotheses was performed with the use of nonparametric statistical methods.

The Kruskal-Wallis test used to verify if there were any statistically significant differences between the tested conditions was statistically significant,  $\chi^2(4) = 57.31$ ,  $p < .001$ . For more specific comparisons, we used the Mann-Whitney test to assess the statistical significance and computed the effect size measure ( $ES$ ) for the statistically significant differences.<sup>8</sup> In order to verify the Misdescription Hypothesis, we performed a comparison between condition I (clear reference) and conditions II-V combined (misdescriptions). The test indicated that the degree of agreement was significantly greater in the misdescription conditions than in the clear-reference condition ( $U = 3765$ ,  $n_{II-V} = 240$ ,  $n_I = 67$ ,  $p < .001$ ,  $ES = .39$ ). The sum of ranks for conditions II-V ( $\sum R_{II-V} = 41,236$ ) was larger than the sum of ranks for the condition I ( $\sum R_I = 6043$ ). Therefore, the acquired results confirmed the Misdescription hypothesis. Furthermore, we observed that the degree of agreement in the No-object conditions was higher than in the Irrelevant-object conditions. The

<sup>7</sup> There is a problem of how to understand the choice of a point close to the middle of the slider. Is the verdict “I partially agree” or rather “I don’t know”? Actually, we believe that the choice of such a point — no matter how we actually interpret it — expresses a kind of support for the Misdescription hypothesis. If the verdict is “I partially agree”, then it directly confirms the hypothesis. If the verdict is “I don’t know”, it provides indirect support since a confusion arises most likely because of the existence of conflicting intuitions: the respondent feels that there are some reasons for disagreement, but he/she also feels that there are some reasons to agree that the misdescribing statement is true. This is essentially in line with the prediction of the Misdescriptions hypothesis.

<sup>8</sup> Bonferroni correction was used to prevent inflation of the type I error.

**Table 1** Descriptive statistics for the scores on the degree of acceptability scale in the tested conditions (Study on misdescription)

Condition	<i>N</i>	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>	<i>S</i>	<i>K</i>	<i>S-W</i>	<i>p</i>
I. Clear Reference	67	.81	1.42	0	5	1.94	2.87	.63	.001
II. Misdescription: Referential use + No-object	67	3.18	1.88	0	5	-.55	-1.21	.82	.001
III. Misdescription: Referential use + Irrelevant-object	73	2.25	1.94	0	5	.28	-1.48	.85	.001
IV. Misdescription: Attributive use + No-object	50	2.76	1.81	0	5	-.27	-1.43	.87	.001
V. Misdescription: Attributive use + Irrelevant-object	50	1.92	1.56	0	5	.20	-1.22	.89	.001

*M*, mean value; *SD*, standard deviation; *min*, minimum; *max*, maximum; *S*, skewness; *K*, kurtosis; *S-W* – the Shapiro-Wilk test of normality value; *p* – statistical significance

difference between those conditions — namely, conditions II + IV combined vs conditions III + V combined — was statistically significant ( $U = 5267$ ,  $n_{II+IV} = 117$ ,  $n_{III+V} = 123$ ,  $p < .001$ ,  $ES = .24$ ). The sum of ranks for conditions II + IV ( $\Sigma R_{II+IV} = 16,027$ ) was larger than the sum of ranks for the conditions III + V ( $\Sigma R_{III+V} = 12,893$ ).

Based on the above analysis, we may conclude that people report intuition consistent with the Misdescription hypothesis. However, this intuition is stronger in the cases where no object satisfies the description than in the cases where there is something to which the description actually applies. As our analysis has shown, the difference between the No-object and the Irrelevant-object condition is relevant. So the degree of confirmation for the Misdescription hypothesis depends on a contextual assumption, namely, on the assumption whether there exists a real satisfier of the description.

#### 4 Pragmatic Account of Misdescription

As the results of our study show, the main assumption of the Argument from misdescription has been confirmed. The question arises whether these results indeed threaten the classical views which claim that a description semantically refers to an object that uniquely satisfies it. As some philosophers have argued, the intuition underlying the Argument from misdescription is, in fact, compatible with these views, provided that we appeal to pragmatics. In brief, the idea is that although the speaker expresses a falsehood while making a misdescription, she may succeed in *communicating* a true proposition by her utterance. Let us discuss this proposal in details.

According to Paul Grice (1989), by making an utterance in a particular context, a speaker may convey something different than the proposition determined by the lexical meaning of the used expressions. This is possible due to the fact that the speaker and her audience share — or at least, they assume they share — some general assumptions about rational conversation, and optionally some knowledge about the world. For example, by a response like “I feel tired today” to the question “Are you going to the party today?”, the speaker says that  $x$  is tired at  $y$  (where  $x$  = the author of the utterance, and  $y$  = the day of making it). Nonetheless, the speaker *means* a different proposition, namely, that  $x$  will not go to the party and the speaker assumes that her hearer will capture this proposition based on the knowledge that going to parties is not the best thing to do when one feels tired.



Inspired by the Gricean distinction between saying and meaning, Kripke (1977) and Neale (1990) attempt to explain the ambivalent intuitions about the cases of misdescriptions involving referential uses. Kripke distinguishes between “semantic reference” and “speaker’s reference”. The first notion is semantic, the second one pragmatic. The semantic referent is determined by conventions of a given language (plus some facts about the world), e.g., the word “I” semantically refers to the speaker of this expression as used on a particular occasion. The speaker’s referent is roughly the object the speaker wishes to talk about on a given occasion, and she also believes that it fulfills the conditions of being the semantic referent of the used expression. The speaker’s referent may be the semantic referent of the expression, or not, if the speaker is mistaken.<sup>9</sup> In a similar vein, Neale draws a distinction between the proposition meant and the proposition expressed (1990, ch. 3). He employs Grice’s notion of “implicature” in order to provide a detailed account of Donnellan’s distinction. According to Neale, descriptions have a Russellian semantics and thus a sentence of the form “The *F* is *G*” expresses a general proposition equivalent to “There exists a unique *F* and it is *G*” in both uses of descriptions. However, by using a description referentially, the speaker implicates an object-dependent proposition about that object which she has in mind, i.e., a proposition of the form “*d* is *G*” (for details see Neale 1990: 89–90).

According to Kripke, a speaker refers to a misdescribed object – in the sense of speaker’s reference – but this object is not the semantic referent of the description. In effect, what the speaker means is true in such a case, although what the sentence expresses is false. Similarly, in Neale’s terms, a speaker may implicate a true object-dependent proposition about the object she has in mind, although the general proposition she expresses is false. Thus the intuition that the speaker is in a sense correct arises due to a purely *pragmatic* phenomenon, namely, because the speaker means or implicates a true proposition, and this fact does not prove anything about the semantics of descriptions. Let us call this view the “pragmatic account” of misdescriptions.

If we adopt the pragmatic account of misdescriptions, we can explain the propensity of the respondents in our study to admit to a certain degree that the statements with misdescriptions are true. This account predicts that if the respondents are sensitive to the speaker’s meaning – namely, their intuition tracks what the speaker means or implicates by an utterance with a misdescription – they tend to say that these utterances are true. In fact, it is quite probable that, on one hand, ordinary users of language recognize a particular message the speaker intends to convey (especially when they have a detailed description of the context) but, on the other hand, they do not have theoretical skills to distinguish this content from the semantic content of a sentence. If this is correct, we should actually expect that people do not express a straightforward disagreement that the statements with misdescriptions are true.

In the next two sections, we will argue that although the pragmatic account sounds appealing, it is actually deeply problematic.

<sup>9</sup> Cf. Kripke’s example with Jones and Smith (1977: 263).

## 5 Problem with Attributive Uses

One general problem with the pragmatic account is that it does address – no matter whether in Kripke’s or Neale’s version – the cases of misdescriptions with attributive uses. According to Kripke, when a speaker uses a description attributively, she uses it with an intention to refer exactly to the object which is the semantic referent of the description. In other words, the speaker refers – in the sense of speaker’s reference – to *whatever* is determined as the referent of this expression by linguistic conventions. For example, the speaker Mary who utters “The owner of this apartment is an art expert” in our vignettes (see Appendix, Part 1) intends to refer to the person who uniquely owns the apartment in question. Hence, in the case of attributive uses, the speaker’s referent equals the semantic referent by definition (Kripke 1977: 264). A consequence of this is that we cannot explain the intuition indicating that the speaker is somehow correct (while making a misdescription) in terms of the contrast between saying and meaning, since the proposition meant is identical to the proposition expressed in this case, and it is simply false. A similar problem arises with regard to Neale’s implicature-based account. While using a description attributively, a speaker only expresses a general proposition because there is no particular object she has in mind in this case and thus no object-dependent proposition is entertained by the speaker. So provided we have a typical case of misdescription and the general proposition expressed by the speaker is false, the speaker does not, in principle, communicate any true proposition.

The pragmatic account of misdescriptions does not cover attributive uses and it cannot account for them, provided we stick to the presented characterizations. This seems to be a serious drawback of the pragmatic strategy since the phenomenon of misdescriptions with attributive uses seems to be essentially the same as with referential uses.

Since the pragmatic account of misdescriptions relies on a specific characterization of the referential use (according to which, a speaker using a description referentially communicates a singular proposition), it is quite obvious that this account — as it stands — does not have any story to offer about the attributive uses. Nonetheless, one may try to develop this approach to cover the attributive uses as well. The idea is that just like in the cases of the referential uses, a speaker using a description attributively may say something false but convey a truth at the same time. Let us illustrate this idea with the example from our vignettes. As an anonymous reviewer of our paper pointed out, it is quite easy to recover the proposition which Mary intends to communicate by saying “The owner of this apartment is an art expert”. Whatever this proposition is, it is something like “whoever is responsible for these paintings being here is an expert”. According to the reviewer’s suggestion, Mary is obviously successful in communicating something true for someone with *full* information, such as the experiment’s participants, as they understand her way of thinking: she means to express the proposition such as the above one. In sum, the proposal of extending the pragmatic account to cover attributive uses is to say that while expressing a *general false* proposition, a speaker who commits a misdescription communicates a *true general* proposition with a somehow different descriptive content: more cautious or less dependent on fallible assumptions. This proposal seems plausible, given that in the attributive use, a speaker does not have a particular object in mind, so the proposition the speaker intends to communicate has to be general rather than singular.

The indicated path seems promising, but the devil is in details. The problem is to elaborate on a full-blown theoretical explanation of the mechanism which generates such a true implicature in the cases of misdescription with attributive uses. Both Kripke

and Neale appeal to the Gricean framework in which the speaker's meaning is governed by the Principle of Cooperation which, in turn, is specified by four maxims of conversations — that is, maxims of quality, quantity, relation and manner. The speaker's meaning must be derivable from the explicit content based on these maxims (and, optionally, some background knowledge.) It is unobvious how any of these maxims — separately or in interaction — would justify a pragmatic inference from the proposition “the owner of this apartment is an art expert” to the proposition “whoever is responsible for the paintings here is an art expert”.

Let us briefly discuss the last point. One may argue that the indicated inference is based on the maxim of relevance. That is, we can imagine that Mary makes her utterance in a context where she and her interlocutor talk about the man who is responsible for the paintings and, all of a sudden, Mary talks about “the owner”. We would be then justified to interpret her utterance as communicating something about the man responsible for the paintings — due to the maxim of relevance and attributing to Mary a quite reasonable assumption that the owner is, in fact, responsible for the paintings. However, the respondents are not given a detailed description of the conversational context, so why would they think that Mary is flouting the maxim of relevance? In fact, her statement “the owner of this apartment is an art expert” does not seem to be irrelevant in Grice's sense, given the presented background; hence there is no signal that the maxim of relevance is flouted and a pragmatic inference should be performed, in order to discover what the speaker really intends to convey. A different option would be to say that perhaps this is a case of flouting the maxim of quality — Mary makes a literally false statement for some particular reasons, that is, she wants to accomplish a certain conversational effect by a choice of an evidently wrong description. But this is unconvincing, too. Flouting the maxim of quality involves only special cases where a speaker *fully intentionally* expresses something which she or he takes to be literally false (e.g., hyperboles or sarcasm). On the other hand, it is most natural to infer that Mary simply commits a mistake, that is, she incorrectly assumes that the owner and the man responsible for the paintings is one and the same person. This is a crucial difference between Mary's case and the cases of flouting the maxim of quality. Besides, there is nothing pathological in Mary's utterance which would even make us think that the maxim of quality has been somehow violated.<sup>10</sup>

In sum, the pragmatic account of misdescriptions is problematic because of attributive uses: it is hard to come up with a theoretical explanation how exactly a true speaker's meaning is generated under the attributive use of a description in circumstances of misdescribing.

## 6 Experimental Study Part II: Pragmatic Meanings

The aim of this section is to present some further results indicating that ambivalent evaluations of misdescription statements cannot be explained away in terms of a contrast between the semantic and the pragmatic content. Roughly speaking, these results show that if the story offered by the pragmatic account was correct — that is, a misdescribing statement merely communicates a true proposition — the level of agreement with such a statement would be relatively lower.

<sup>10</sup> We owe this part of considerations to an anonymous reviewer.

## 6.1 Experimental Strategy and Hypotheses

In the second study, we focused on typical pragmatic derivations which ought to be viewed by the pragmatic account analogously to misdescriptions. That is to say, these were the cases where a speaker said something false (i.e., the semantic content of her utterance was a false proposition), yet she succeeded in communicating a true proposition given the contextual information. Our aim was to verify whether the contrast between the proposition expressed and the proposition communicated inclines people to express partial agreement with a statement under evaluation just like the misdescription phenomenon. Provided that the pragmatic account is correct, people should agree that literally false but “pragmatically true” statements are true *to a similar degree* as statements with misdescriptions. That is to say, the pragmatic account predicts that the two kinds of statements will be evaluated similarly, since they essentially represent the same phenomenon. On the other hand, if people’s truth-value judgements in these two cases are different — in particular, they are more positive with regard to misdescriptions than to true pragmatic meanings — then the intuition which people express about misdescription cannot be explained away as simply an effect of recognizing by them a true meaning of the speaker.

## 6.2 Method

### 6.2.1 Participants

We collected 137 completed surveys: 16 were rejected from our analysis as the respondents did not report English as their first language. The study was conducted online. All participants were recruited via Clickworker and paid Euros 0.25 each.

### 6.2.2 Material

As before, we employed a vignette-model of questionnaires where the respondents had to evaluate a statement made by a character of a fictional story. According to the strategy formulated above, we presented the respondents with situations in which a speaker made a false statement but communicated a true proposition by it. Our material contained three different scenarios where the speaker expressed a hyperbole, sarcasm and a relevance implicature respectively.<sup>11</sup> All scenarios were constructed in such a way that the respondents were able to figure out without any doubts what the proposition communicated was.<sup>12</sup> (The whole material is contained in the Appendix, Part 2.)

---

<sup>11</sup> As we argued in the previous section, it is unclear what particular kind of Gricean derivations people are supposed to perform in the cases of misdescriptions with attributive uses. This fact made it hard to determine a perfectly analogous comparable material. We decided to compare misdescriptions with several different pragmatic phenomena. As we have already said, we are skeptical whether any of these phenomena can fully accommodate the misdescription cases; yet, we did not see any better options for our comparisons.

<sup>12</sup> Usually, the utterance under evaluation was made as a reply to a question asked by the speaker’s interlocutor. This reply was always indirect in the sense that a proper answer was only implicated. So provided that the respondents had the question and some background information, they were able to easily recover the content implicated by the speaker — namely, it was a proper specific response to the question made by the interlocutor.

### 6.2.3 Procedure

The second study was conducted entirely online just like the first one. Each participant got exactly one of the three scenarios (randomly assigned). The task was formulated in the same way as in the study on misdescription. The respondents were asked to evaluate the statement “What X said was true” (where “X” replaces the name of a character) using a slider ranging from “Disagree” to “Agree”, which was translated into a six-degree scale at the stage of analyzing the data.

### 6.3 Results

Table 2 below presents chosen descriptive statistical results:

Since distributions of the scores in all three conditions differed significantly from the normal distribution, we used nonparametric tests.

Firstly, we recorded no statistically significant differences between all three conditions, using a Kruskal-Wallis test ( $\chi^2(2) = .11, p = .95$ ). For this reason, we decided to treat the results of all three types of true pragmatic meanings collectively in the further analysis. Secondly, we observed that propensity of the respondents to agree that the statement under evaluation is true is smaller than in the cases of misdescriptions. In the statistical analysis, we focused on a comparison between the results of pragmatic meanings and the results concerning misdescriptions in the Irrelevant-object condition. As determined by a Mann Whitney test, the acceptability degree of a misdescription statement in the Irrelevant-object condition is significantly greater than the acceptability degree of a false statement that conveys a true pragmatic meaning ( $U = 5296, n_{PM1-3} = 121, n_{III+V} = 123, p < .001, ES = .26$ ). The sum of ranks for the pragmatic-meaning conditions ( $\Sigma R_{PM1-3} = 12,677$ ) was lower than the sum of ranks for the misdescription conditions, III + V combined ( $\Sigma R_{III+V} = 17,213$ ).<sup>13</sup>

To sum up, the truth-value judgements about misdescription statements are essentially more positive than about (various) false statements with true pragmatic contents. This observation is deeply problematic for the pragmatic account, since both types of cases are viewed as analogous by this account. It indicates that the reason why people “partially agree” with misdescription statements is not merely because these statements convey certain true propositions. Altogether, the pragmatic account faces two big challenges: the first one is to provide an adequate explanation how a true pragmatic meaning is generated when a misdescription is committed under an attributive use; the second one is to explain why evaluations of misdescription cases are generally different than of some typical cases involving a contrast between the semantic and the speaker’s meaning. The pragmatic account is then unconvincing or incomplete at best.

## 7 Account of Misdescription Based on Salience

In the previous section, we have argued that the pragmatic defense of the classical views on descriptions against the Argument from misdescription is problematic. In the

<sup>13</sup> The same conclusion naturally applies to misdescription cases in the No-object condition, where the mean acceptance levels were even higher than in the Irrelevant-object condition.

**Table 2** Descriptive statistics for the scores on the degree of acceptability scale in the tested conditions (Study on pragmatic meanings)

	<i>N</i>	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>	<i>S</i>	<i>K</i>	<i>S-W</i>	<i>p</i>
Pragmatic meaning 1	45	1.13	1.39	0	5	1.18	.41	.79	.001
Pragmatic meaning 2	39	1.23	1.75	0	5	1.23	.04	.71	.001
Pragmatic meaning 3	37	1.49	2.05	0	5	.93	-.92	.69	.001

final section, we present an alternative view on descriptions, which, as we will argue, is compatible with the results of our study on misdescription. However, our aim here is not to offer a full-blown theory whose semantic predictions will be exactly in line with the truth-value judgments of the study participants. Rather, we are going to argue that the model of the reference-resolution process assumed by that theory explains why the respondents in our study *identified* the misdescribed individuals as the (partial) semantic referents and why the propensity to such identification is greater in the No-object than in the Irrelevant-object condition.

### 7.1 Salience Theory of Reference

The view we are going to present accounts for the referential properties of singular expressions in terms of salience. (cf. Lewis 1979; Grosz et al. 1995; Mount 2008; von Heusinger 2002, 2006). This approach to descriptions has been proposed by Lewis (1979) and was later developed by von Heusinger (2006, 2013). In a Lewisian formulation, a description “the *F*” designates *x* if and only if *x* is the most salient *F* in the domain of the discourse, according to the ranking of salience determined by some contextual features (1979: 348.) “Salience” is a heterogeneous notion in the sense that various factors can make an object more distinguishable than the others. Lewis discusses two examples (but certainly the list of salience factors is not limited to those two cases.) Firstly, an object may be salient because of its physical presence at the moment the speaker is using a description. Secondly, an object may become salient by virtue of a conversation, that is, because that object has just been mentioned in one way or the other, and so the attention of all interlocutors is focused on this object (cf. Lewis’s examples with cats).

We will now formulate and elaborate on some essential assumptions of the salience approach which, in our opinion, are crucial for understanding the misdescription phenomenon and the explanation of the experimental results. A semantic theory of descriptions based on salience incorporates two general ideas:

- (A). various types of relations between a description-token and an individual in the world may be semantically relevant as various factors can make that individual (the most) salient.
- (B). the process of reference resolution ought to be conceived as a process of choosing the “best” out of various “candidates” for the referent, based on a gradable feature of salience.

Let us comment on (A). We have already said that salience may be manifested in different ways. In particular, an individual may become salient at a conversational stage of using a description-token in virtue of *bearing a certain relation* to that token (e.g., being mentioned just before that token is produced.) In light of this, we believe that a causal link of a certain sort between a description-token and an object may also be a factor which makes this object salient. Let us explain our idea by a simple illustration. Suppose subject *S* is confronted by three cats:  $cat_1$ ,  $cat_2$ ,  $cat_3$ . Imagine that *S* is looking at  $cat_1$  seemingly paying attention to it and, while looking at it, he says “I like the cat”. Intuitively, the description “the cat” designates  $cat_1$  and so  $cat_1$  must be the most salient cat, according to the presented approach. Where does this extra salience of  $cat_1$  come from? All three cats stand out due to the fact that all are physically present in front of *S*. However,  $cat_1$  seems to be more salient than other cats because it is a unique cat to which *S* pays attention and his statement is in a sense a *result* of observing that cat. In other words, we conceive  $cat_1$  as strongly salient in virtue of our recognizing a causal link between  $cat_1$  and *S*’s use of “the cat”. Contrast this picture with a situation where apparently no causal link exists between the utterance of *S* and  $cat_1$ . For instance, assume that *S* is just looking in the direction of  $cat_1$  but does not focus any attention on it. In such a case, we would not say that  $cat_1$  is more salient than other cats in any way.

To sum up, once we recognize that a certain entity causally underlies<sup>14</sup> a use of a description-token, this entity becomes salient and is included in the set of salient objects at the current stage of conversation. Another factor of salience is, in our view, the descriptive material of a used expression. That is to say, an application of a certain concept is a device to make salient all those objects relevant to the discourse which fall under that concept; e.g., by using the description “the table”, I can distinguish all *tables* among the objects belonging to the domain of discourse. Altogether, a causal or the satisfaction relation between an object and a description-token are different instances of those kinds of relations which make that object salient at a given conversational stage.<sup>15</sup>

Let us now comment on the point (B). As is obvious, usually more than one object is salient at a given stage of a conversation since many different objects can have features which make them salient. Salience is a gradable feature and thus objects can be compared to each other with respect to their level of salience. In consequence, the process of reference resolution must include two stages: (i) identifying the set of salient

<sup>14</sup> One big problem is how to identify the individual who “causally underlies” the use of an expression (since there are usually many different objects along the causal chain.) We will not solve this problem here but only suggest a solution. According to our suggestion, the mechanism of reference cannot be explained in purely causal terms. In particular, the speaker and the interlocutor usually need to associate with the used expression some very general descriptions indicating what kind of an object is talked about. For instance, while using a name of a cat, we need to assume that we are talking about an animal, i.e., a living individual in its all spatiotemporal aspects, and not, for example, about an inseparable part of the cat (observe that inseparable parts of the cat are also things which stand in causal relations to our use of the name.) Provided that we incorporate some descriptive elements into our theory, we hope to be able to explain how causal groundings are fixed. (Here, we refer the reader to Devitt’s discussion about the “Qua problem” (1981: 60–64, 2015: 115.) His considerations may shed some light on the problem signalized in this footnote.)

<sup>15</sup> The category of “salience” is also known in the fields of psycholinguistics or linguistics. The basic idea behind this notion, as it is used in the aforementioned fields, is very similar to what has already been discussed. According to the working definition by Chiarcos et al. (2011: 2), “salience defines the degree of relative prominence of a unit of information, at a specific point in time, in comparison to the other units of information.” This notion is mainly employed in research of the phenomena like anaphora resolution, idioms and metaphors.

objects, (ii) making a comparison between the elements of this set, which aims to determine the most salient among them. In Lewisian terms, stage (ii) is to establish a “ranking” of salient objects. We are not going to discuss here how such a ranking is constituted in details.<sup>16</sup> Generally speaking, the level of salience of a particular object seems to depend on the factor which makes that object salient and so one factor of salience can be stronger than another one. For example, a recognized causal link makes an object intuitively more salient than the mere physical position (cf. the example with three cats). With regard to descriptions, especially descriptions in their attributive use, the satisfaction relation seems to be the most important factor of salience.

In light of our considerations so far, it is quite obvious that a ranking of salience — established at a given conversational stage when someone uses “the *F*” — may include the objects which are not *F*s; for example, there may be an individual appropriately causally linked to the use of “the *F*” which is not, as a matter of fact, an *F*. This fact will prove its significance in a moment. At this point, let us mention that the presented salience account is somehow similar to the proposal of Recanati (2013). According to him, the referent of an expression is determined non-descriptively via the associated mental file. The fact that a given object satisfies the descriptive content of the expression does not then establish the reference relation, yet this information is contained in the mental file as a constituent. That is to say, the descriptive meaning of a referring expression acts like a presupposition which the speaker’s reference must satisfy in order to become the semantic referent (2013: 16). This account coincides with our view in the following sense: like Recanati, we acknowledge that the intended referent must satisfy the property encoded by a description in order to become the semantic referent; however, we do not claim that satisfaction is crucial in determining reference (since, in our view, it is determined by the highest level of salience); rather, satisfaction is an *additional* condition which the most salient object must meet in order to become the referent.

## 7.2 Towards an Explanation of the Results

Let us call the picture of reference outlined in section 7.1 the “salience account of reference.” We now indicate how the results of the experimental research on misdescriptions can be explained by this account. Once again, we want to emphasize that we do not assume that the salience account of reference needs to have semantic predictions directly compatible with the empirical results. Whether it does or not surely depends on the details of such an account. What we will argue for is that the pattern of the results reflects the way which — according to the salience account — people take to fix reference.

The salience account conceives reference fixing as a process of determining the referent in a set of contextually salient objects, based on a calculation of the ranking of salience. In general, misdescriptions are cases where – from the viewpoint of this account – the aforementioned process encounters some difficulties and does not provide a determinate output. These difficulties have two different sources depending on the background assumptions, namely, on whether the No-object or the Irrelevant-object condition holds. For this reason, we will consider these two cases separately and explain why these conditions make a difference from the viewpoint of the salience account.

<sup>16</sup> Here, we refer the reader to the work on the so-called “Centering Theory” (see Grosz et al. 1995), which is an attempt to formalize the notion of “salience ranking” by computational linguists.



First let us analyze the cases representing the No-object condition, i.e., the cases where nothing fits the used description. The vignettes from our study will provide an illustration (see Appendix, Part 1). In both stories with an attributive and a referential use, the misdescribed individuals are causally linked to the description used and these links are apparent for the study participants. In the referential scenario, Mary's use of the description "the arsonist from the city gallery" has its causal source in Jones. Also, there is a causal link — though of a different sort — between the description-token "the owner of this apartment" and Mr. Jones, the man who rents the apartment (the attributive case). Mr. Jones is the man who has created the collection and the paintings themselves evoke in Mary a thought she expresses using the aforementioned description.<sup>17</sup> According to the view presented in the previous section, recognizing a causal link between an object and the expression used is a factor of salience. Hence, we can conclude that the misdescribed individuals in both stories (with the referential and the attributive use) are salient. One may be skeptical whether Mr. Jones is indeed salient in the attributive-use scenario, because he simply seems to be too far removed from the conversational scene to be salient for the conversation participants. But, certainly, he is salient to the participants of the study because they are provided with a full background knowledge (i.e., they are told that Jones is responsible for the paintings etc.) It is important to emphasize that Jones is not salient to the respondents only in virtue of being mentioned in the vignette. He is strongly salient because the participants recognize a relevant causal link between his actions and Mary's use of the description.

Furthermore, let us observe that the misdescribed individual Jones is evidently the *most* salient in both scenarios – no other individual is a causal source of the description(s) use, nothing fits the description, etc. So he is the "best candidate" for the referent, at least. However, this individual does not fulfill the conventional requirement of being the referent. For this reason, someone with the intuition supporting the salience account should be inclined to say that the statement(s) with misdescriptions are "true in a sense" and to treat Jones as the partial referent. In other terms, the salience account predicts that the reaction of a study participant should be *agree to a certain extent* that what a speaker committing a misdescription says is true, which has been exactly confirmed in the experimental research as the Misdescription hypothesis.

The situation is different in the case of misdescriptions in the Irrelevant-object condition. Here, there are obviously two candidates for the referent: one indicated by the descriptive content of the used description, the other one determined by the relevant causal link. These individuals are more or less *equally* salient for the study participants. Namely, they both satisfy different conditions which make them strongly salient. As we have noted, the satisfaction condition seems to be more important than the causal connection, especially for descriptions in their attributive use. For this reason, the individual satisfying the description is presumably slightly more salient and the process of reference computation performed by the respondents is more likely to deliver this individual as the output. Yet, the output of this process is not wholly unambiguous

---

<sup>17</sup> In general, the existence of a causal link between a misdescribed object and a description-token is a universal feature of different cases of misdescriptions. Cf. Devitt's (2004: 292, ft. 25) explanation of referential misdescriptions.

because the levels of salience of both candidates are comparable. Based on this observation, we can say that the evaluation of a statement with misdescription in the Irrelevant-object conditions should be ambivalent too, directing rather to “Disagree” than to “Agree”. There are surely several options to specify this general prediction in the form of a hypothesis operating particular values, but it is quite obvious that any reasonable hypothesis of this sort would be rather confirmed by our results: the mean acceptance level in the referential-use scenario was 2.25, and 1.92 in the attributive-use scenario with the Irrelevant-object condition.

The above considerations explain the difference in the results of the two discussed conditions. As we have said, the process of reference resolution performed by the study participants is conceived as a procedure of choice between the objects which are contextually salient – candidates for the referent. In the No-object condition, there is only one candidate and it has a property ascribed in the predicate; in the Irrelevant-object condition, there is another comparable candidate which does *not* have this property. For this reason, we should expect that the propensity to agree that a statement with a misdescription is true will be smaller under the Irrelevant-object condition than under the No-object condition. A theory which claims that reference fixing is based on a comparison process between objects — such as the salience account of reference — captures the difference in question in a natural way.

## 8 Summary

In this paper, we have discussed the Argument from misdescription which is supposed to show that the classical views on the semantics of descriptions are incorrect, because a description may designate an object to which the descriptive content does not apply. We observed that the crucial assumption of this argument required empirical verification. In order to verify this assumption, we designed an experimental study investigating ordinary speakers’ reactions to statements with misdescriptions, that is, statements which truly ascribe a certain predicate to an object, but use an incorrect description. According to the prediction in line with the Argument from misdescription, such statements ought to be evaluated as “true” to a greater extent than analogical statements in similar circumstances where no misdescription occurs. The main conclusions of our study are as follows:

- The prediction of the Argument is correct about various misdescription cases in general,
- The strength of the prediction depends on the background assumption: whether there exists, or not, the real satisfier of the description.

We claimed that the findings of our study are genuinely problematic for the classical views on the semantics of descriptions. In particular, we argued against the pragmatic defense of these views, which attempts to explain the respondents’ intuition in terms of the distinction between the semantic and the speaker’s meaning. Our criticism was related to a problematic status of attributive uses and some further empirical results focused on the speaker’s meaning. In the last part of our paper, we proposed an

alternative account of reference based on the notion of salience. We argued that this account can provide an adequate explanation of our findings, in particular, it explains why the strength of the intuition underlying the Argument from misdescription depends on the existence of the actual satisfier of the description.

**Acknowledgements** This research project was supported by a grant of National Science Centre in Poland, based on the decision numbered DEC-2013/09/N/HS1/02024. We would like to thank to Michael Devitt for his comments on some issues discussed in this paper and to Joshua Knobe for his help in improvement of our experimental study. Also, the first author wishes to express his gratitude to Cezary Cieśliński and Katarzyna Kijania-Placek for their comments to his PhD dissertation, which helped to improve the ideas presented in the final part of the paper.

## Appendix

### PART 1

#### Clear-Reference Case

Mary invited her two good friends — Emma who is a hairdresser and Anna who is a dog trainer — for tea. She offered them her delicious homemade biscuits and Emma ate 7 biscuits while Anna 12. Mary's husband, Paul, was also present. Later, after the guests have gone home, Paul and Mary are chatting, and Paul says to Mary: “You know, the hairdresser ate more biscuits than the dog trainer”.

Based on the presented story, express your opinion about the following statement:  
What Paul said to Mary was true.

#### Referential Use

(*Introduction, common for both conditions*<sup>18</sup>) A fire breaks out in the City Gallery and some valuable paintings are burned. The police conduct an investigation to find the arsonist and they eventually arrest Mr. Jones who is the main suspect. During the trial all evidence confirms that Mr. Jones is the arsonist and he is found guilty. Paul and Mary are present at the trial and Mary recognizes Jones as her old schoolmate. She says to Paul: “The arsonist from the City Gallery used to go to the same school as me.”

(*Continuation A: No-object condition*) Jones is indeed an old schoolmate of Mary. However, unbeknown to anyone, Jones did not set fire in the City Gallery. As a matter of fact, there was no arson involved because it was a lightning strike that caused the fire.

(*Continuation B: Irrelevant-object condition*) Jones is indeed an old school mate of Mary. However, unbeknown to anyone, Jones did not set fire in the City Gallery. The fire was set by Mr. Smith who has never attended the same school as Mary.

Based on the presented story, express your opinion about the following statement.  
What Mary says to Paul was true.

<sup>18</sup> Introduction was the same in both versions of the scenario. Continuation A was interchangeable with B. Introduction and part A/B were presented on one screen, as one piece of text. (The same remark applies to the scenarios with attributive uses.)

## Attributive Use

(*Introduction, common for both conditions*) Mary and Paul enter a beautifully decorated apartment in which there are a lot of valuable paintings by renowned artists. Mary knows a lot about art and she is very impressed by the collection. She talks with Paul about some paintings from the collection. At the end of the discussion, Mary says to Paul: “The owner of this apartment is an art expert.”

(*Continuation A: No-object condition*) However, Mary does not know that the paintings were collected by Mr. Jones, who is to inherit the apartment from a recently deceased uncle, but at the present is not as yet its lawful owner. Jones – as it can be judged by the collection – is undoubtedly an outstanding connoisseur of art.

(*Continuation B: Irrelevant-object condition*) However, Mary does not know that the pictures were collected by Mr. Jones, who has been living in the apartment for many years and is indeed an art expert, but he is not the owner of the apartment. The real owner of the apartment, who has not been living in it for years, has no taste for art whatsoever.

Based on the presented story, express your opinion about the following statement:

What Mary says to Paul was true.

## PART 2

### Pragmatic Meaning 1 (Hyperbole)

Jim left his little son Danny with his grandparents during dinner time. Later, while taking Danny back from the grandparents, Jim asks his mother Martha whether Danny liked dinner. Martha says: “Oh, he has eaten ten steaks!” Danny liked dinner very much and has indeed eaten a lot, but definitely did not eat ten steaks.

Based on the presented story, express your opinion about the following statement:

What Martha said to Jim was true.

### Pragmatic Meaning 2 (Sarcasm)

Mary, an experienced diver, asks her friend Ann, a less experienced diver, to dive together in a special pool with sharks. But Ann is totally unenthusiastic and sarcastically says: “Just like everyone else, I really love sharks and I would be especially happy when a shark bites my leg!” Of course, Ann does not like sharks, nor does she want to be bitten or eaten by a shark.

Based on the presented story, express your opinion about the following statement.

What Ann said to Mary was true.

### Pragmatic Meaning 3 (Relevance-Based Derivation)

Jack and Jill are waiting for their friend James who usually drives an old red Subaru. Jack asks Jill whether she has any idea where James can be right now and Jill — while observing the parking lot next to supermarket — says: “There

is an old red Subaru parked near that supermarket”. James is indeed shopping in the supermarket indicated by Jill. Yet, Jill is mistaken in thinking that there is James’s car parked near the supermarket, in fact, there is no Subaru parked there.

Based on the presented story evaluate the following statement.

What Jill said to Jack was true.

**Open Access** This article is distributed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made.

## References

- Almor, A. 1999. Noun-phrase anaphora and focus: The informational load hypothesis. *Psychological Review* 106 (4): 748–765.
- Bach, K. 2004. Descriptions: Points of reference. In *Descriptions and beyond*, ed. M. Reimer and A. Bezuidenhout. Oxford: Oxford University Press.
- Chiaros, C., B. Claus, and M. Grabski. 2011. *Saliency. Multidisciplinary perspectives on its function in discourse*. Berlin: De Gruyter Mouton.
- Devitt, M. 1981. *Designation*. New York: Columbia University Press.
- Devitt, M. 2004. The case for referential descriptions. In *Descriptions and beyond*, ed. M. Reimer and A. Bezuidenhout, 280–305. Oxford: Oxford University Press.
- Devitt, M. 2015. Should proper names still seem so problematic? In *On reference*, ed. A. Bianchi, 108–143. Oxford: Clarendon Press.
- Donnellan, K. 1966. Reference and definite descriptions. *Philosophical Review* 75: 281–304.
- Donnellan, K. 1968. Putting humpty-dumpty together again. *Philosophical Review* 77 (2): 203–215.
- Elbourne, P. 2013. *Definite descriptions*. Oxford: Oxford University Press.
- Frazier, L. 2006. The big fish in a small pond: Accommodation and the processing of novel definites. Paper presented at the OSU Presupposition Accommodation Workshop, Oct 13–15, in Columbus, Ohio.
- Genone, J., and T. Lombrozo. 2012. Concept possession, experimental semantics, and hybrid theories of reference. *Philosophical Psychology* 25: 717–742.
- Grice, P. 1989. *Studies in the way of words*. Cambridge, Mass: Harvard University Press.
- Grosz, B.J., A.K. Joshi, and S. Weinstein. 1995. Centering: A framework for modeling the local coherence of discourse. *Computational Linguistics* 21 (2): 202–225.
- Kripke, S. 1977. Semantic reference and speaker’s reference. *Midwest Studies in Philosophy* 2: 255–276.
- Kripke, S. 1980. *Naming and necessity*. Cambridge: Harvard University Press.
- Lewis, D. 1979. Scorekeeping in a language game. *Journal of Philosophical Logic* 8: 339–359.
- Ludlow, P. 2013. Descriptions. In E. N. Zalta (ed.), *The stanford encyclopedia of philosophy* (Fall 2013 Edition), URL = <https://plato.stanford.edu/archives/fall2013/entries/descriptions/>.
- Ludlow, P., Neale, S. 2006. Descriptions. In M. Devitt and R. Hanley (eds.) *The Blackwell guide to the philosophy of language*, Oxford: Blackwell. Cited via: <http://neale.commonscs.cuny.edu/publications/>
- Machery, E. 2012. Expertise and intuitions about reference. *Theoria* 27 (1): 37–54.
- Machery, E., R. Mallon, S. Nichols, and S. Stich. 2004. Semantics, cross-cultural style. *Cognition* 92: B1–B12.
- Machery, E., J. Sytma, and M. Deutsch. 2015. Speaker’s reference and cross-cultural semantics. In *On reference*, ed. A. Bianchi. New York: Oxford University Press.
- Margolis, J., and E. Fales. 1976. Donnellan on definite descriptions. *Philosophia* 6 (2): 289–302.
- Mount, A. 2008. Intentions, gestures, and saliency in ordinary and deferred demonstrative reference. *Mind and Language* 23: 145–164.

- Neale, S. 1990. *Descriptions*. Cambridge: MIT Press Books.
- Peters, S., Boiteau, T. W., & Almor, A. (2016). Pronouns, definite references and semantic relations in spoken language comprehension. *Frontiers in Psychology* 7.
- Recanati, F. 2013. Reference through mental files: Indexicals and definite descriptions. In C. Penco, F. Domaneschi (eds.) *what is said and what is not*, CSLI: Stanford (pp.159–173.) Cited via: [http://jeannicod.ccsd.cnrs.fr/ijn\\_00926224](http://jeannicod.ccsd.cnrs.fr/ijn_00926224).
- Russell, B. 1905. On denoting. *Mind* 14: 479–493.
- Searle, J. 1958. Proper names. *Mind* 67 (266): 166–173.
- Strawson, P.F. 1950. On Referring. *Mind* 59: 320–334.
- Von Heusinger, K. 2002. Reference and representation of pronouns. IN H. Simon & H. Wiese (eds.). *Pronouns: Representation and grammar*. Amsterdam; Philadelphia: Benjamin.
- Von Heusinger, K. 2006. Salience and anaphoric definite noun phrases. *Acta Linguistica Hafniensia - International Journal of Linguistics* 38 (1): 33–53.
- Von Heusinger, K. 2013. The salience theory of definiteness. In A. Capone et al. (eds.), *Perspectives in Linguistic Pragmatics, Perspectives in Pragmatics, Philosophy and Psychology* 2.