Counteridenticals and dream reports: A unified analysis¹

Carina KAUF — University of Goettingen

Abstract. Counteridenticals are counterfactual conditional sentences whose antecedent clauses contain an identity statement, e.g. *If I were you, I'd buy the blue dress*. Here, we argue that counteridenticals are best analyzed along the lines of dream reports. After showing that counteridenticals and dream reports exhibit striking grammatical and perceptual parallels, we suggest an analysis of counteridenticals with Percus and Sauerland's (2003) analysis of dream reports. Following their proposal, we propose to make use of concept generators, realized as centered worlds. To this end, we argue that the presence of *if* licenses the presence of an *imagine*-operator, which constitutes the attitude the antecedent clause '*x* be-PAST *y*' is taken under; The speaker predicates, in the imagine mode, the consequent property to his/her imagined self. To capture the different degrees of identification between the subject and the predicate of the identity statement of counteridenticals' antecedents observed in the literature, we incorporate Percus and Sharvit's (2014) notion of asymmetric *be* into the analysis. This proposal has several advantages over existing analyses (Lakoff, 1996; Kocurek, 2016) of counteridentical meaning, as it both explains the different degrees of identification observed for counteridenticals and correctly predicts the parallels between counteridenticals and dream reports.

Keywords: Counteridenticals, counterfactuals, dream reports, pronoun movement

1. Introduction

Counteridenticals are conditionals with the following two properties: First and foremost, they are *counterfactual* conditionals, meaning that the propositions embedded in their antecedent clauses do not hold in the actual world. Nevertheless, counteridenticals do not just constitute any kind of counterfactuals but rather a specific subtype: Their antecedent clauses always embed an identity statement which *identifies two inherently incompatible entities* with each other. Examples of counteridenticals are given in (1) and (2): We know that, in the real world, the meaning of the expression 'Paula' is unlike the meaning of 'Angela Merkel', and likewise for 'I' and 'you'. Yet, these expressions are felicitously identified with each other in the antecedent of counteridenticals:

- (1) If \underline{I} were you, I'd buy the blue dress.
- (2) If <u>Paula</u> were Angela Merkel, she'd be the chancellor of Germany.

From the above examples we derive the following intuitive meaning of counteridenticals, and it is the aim of this paper to capture it in formal terms: A speaker is imagining a counterfactual world. In this contrary-to-fact world, the subject and the predicate entities of the antecedent clause have been identified with each other, leading to the creation of a counterpart of the

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subject entity in the counterfactual world. According to Lewis (1973), the counterpart of an entity is a non-actual individual who is not the same individual as the actual entity itself but similar enough to it such that the reference across worlds is rigid. For counteridenticals, we gather that the counterpart belongs to the subject entity since sentences like (3) are marginal for native speakers of English and, thus, will not be considered in this paper.

(3) ?/* If I were Angela Merkel, <u>her</u> name would be Carina.

The counterpart entity that lives in a counteridentical world is a composed individual—it contains properties of both the antecedent clause's subject and predicate entity, i.e. the referents of the clause's subject and predicate. This becomes evident when considering scenarios like the following: Imagine that we are dress shopping. I like the blue dress best, but I do not have the money to buy it. You, on the other hand, have the money to buy it, but you like the red dress better. In this scenario, neither you nor I would buy the blue dress in the actual world. Nevertheless, if you asked me which dress you should buy in the given scenario, I could felicitously utter "If I were you, I'd buy the blue dress", to express that a non-actual counterpart of mine having my taste in clothing but your financial situation—would buy the blue dress. Hence, the consequent propositions of counteridenticals are evaluated with respect to a composed counterpart individual that possesses a set of contextually relevant properties derived from the subject and predicate entities.

In this paper, we argue contrary to existing proposals of counteridentical meaning (Lakoff, 1996; Kocurek, 2016) that counteridenticals are best analyzed along the lines of dream reports, which already receive a similar intuitive interpretation as counteridenticals: Also when dreaming, we may identify two inherently distinct entities with each other. And also when dreaming does such an identification of two entities lead to the creation of a composed subject counterpart in the counterfactual world with respect to which the consequent propositions are evaluated (cf. (4)). In order for the dream report in (4) to be uttered felicitously, for example, the subject entity of the second coordinated clause (i.e. *she*) has to possess properties of both Paula and Angela Merkel, as otherwise Mary could not even have known whom she has identified with each other in her dream.

(4) Mary dreamed that Paula was Angela Merkel and that she had dinner with the Macrons on top of the Eiffel tower.

In order to argue for a novel analysis of counteridenticals along the lines of dream reports and, thereby, strengthen the intuitive parallel that was just established, this paper is structured as follows. In Section 2, we show that counteridenticals and dream reports exhibit striking grammatical as well as perceptual parallels. In Section 3, we then suggest an analysis of counteridenticals along the lines of Percus and Sauerland's (2003) (henceforward P&S) analysis of dream reports. The proposal incorporates Percus and Sharvit's (2014) asymmetric *be*-operator in order to capture the contribution of the identity statement embedded in the counteridentical's antecedent clause. Section 4 concludes the paper by discussing predictions the proposal makes as well as questions it raises.

2. Parallels Between Counteridenticals and Dream Reports

Counteridenticals and dream reports exhibit at least four parallels with regard to their grammatical and perceptual make-up. Some of these correlations have already been noted by Arregui (2007), but this paper provides two novel arguments in favor of an analysis which treats the two constructions on par.

2.1. Parallel 1-Validity of Identity Statements

Both counteridenticals and dream reports enable us to comprehend clauses which, under canonical circumstances (i.e. excluding role playing situations, etc.), seem irremediably false in extensional contexts. An example of such a clause is given in (5a).

- (5) a. *I was you.
 - b. If I was/were you, I would be happier.
 - c. I dreamed I was you.

(cf. Arregui, 2007: 31)

When evaluated against the facts of the actual world, the identification of two inherently different individuals, here, the referents of *I* and *you*, seems clearly infelicitous. Nevertheless, in the case of dream reports (5b) and counteridenticals (5c), we can easily make sense of such a relation, since we derive from their structures that instead of consulting our knowledge of the actual world we are to imagine worlds which differ from ours with regard to some contextually relevant presuppositions, here: the identity of the speaker and the addressee.

2.2. Parallel 2—Principle B Effects

Both counteridenticals and dream reports allow for sequences to occur that cannot be independent matrix clauses.

- (6) a. *I kiss(ed) me.
 - b. I dreamed I was Brigitte Bardot and <u>I kissed me</u>.
 - c. If we were you, <u>I'd kiss me</u>.

(Arregui, 2007: 31)

In extensional contexts (e.g. (6a)) the sequence I kiss(ed) me constitutes a violation of the binding principle B, which requires that a pronoun must be unbound within its binding domain (cf. Chomsky, 1982). In dream reports and counteridenticals, however, pronouns with the same features may have multiple referents, as can be made explicit by adding indices to the examples in (6), yielding (7). Whereas the subscripts *i* and *j* are used for pronouns referring to entities inhabiting the actual world in addition to the counterfactual one, the subscript $i \oplus j$ designates pronouns referring to the non-actual entity that possesses a combination of the antecedent clause's subject and predicate entity's properties, i.e. the subject's dream/counterfactual self. The availability of multiple referents enables the circumvention of the binding principle's application in (6b)/(6c).

- (7) a. $*I_i$ kiss(ed) me_i.
 - b. I_i dreamed (I_i was Brigitte Bardot_j) and $I_{i\oplus j}$ kissed me_i.
 - c. If I_i were you_j, $I_{i \oplus j}$ 'd kiss me_i.

Strikingly, however, both counteridenticals and dream reports only allow principle B violations for first person pronouns. Similar structures are not permitted for third person pronouns, second person pronouns, or a mix thereof (cf. Arregui, 2007: 32):

(8)	a.	(i)	*If Peter _i were Bill _j , he _{i\oplusj} 'd kiss him _i .	(3rd)
		(ii)	*Sue _i dreamed [she _i was Brigitte Bardot _j and] she _{i$\oplus j$} kissed her _i .	
	b.	(i)	*/?If you _i were me _j , you _{i$\oplus j$} 'd kiss you _i .	(2nd)

- (ii) *You_i dreamed [you_i were Brigitte Bardot_j], and you_{i $\oplus j$} kissed you_i.
- c. (i) *If Peter_i were you_j, $he_{i\oplus j}$ 'd kiss him_i/you_j . (3rd/2nd) (ii) *Peter dreamed [he was you] and $he_{i\oplus j}$ kissed him_i/you_j .

This is especially striking since second/third person pronouns may actually have multiple referents, as can be seen from the following example, in which a possessive structure has been chosen to avoid the intervention of the binding principle B (as possessives in English never trigger Principle A/B effects).

(9) If Susan_i were Sue_j, she_{i \oplus j} would be in love with her_i brother.

2.3. Parallel 3—Identity Inferences

In both counteridenticals and dream reports, the counterfactual identification of the subject entity with the predicate entity prompt the assignment of the entire set of (contextually relevant) properties defining the predicate entity to the subject on the part of the listener. If, in such a situation, the speaker wants to change any of the predicate entity's properties which undergo the re-ascription process, s/he has to make the change explicit. Otherwise the listener is expected to object. Consider, for instance, the following examples:

- (10) [CONTEXT. Assuming Angela Merkel does not like traveling.]
 - a. If I were Angela Merkel, I'd be traveling all around the world, <u>but (unlike her,)</u> I'd be enjoying it.
 - b. A: If I were Angela Merkel, I'd be traveling all around the world and I'd be enjoying it.
 - B: Wait a minute, I thought Angela Merkel hates traveling.
- (11) [CONTEXT. Assuming you don't live in a great apartment in New York.]
 - a. I dreamed I was you. <u>But</u> you lived in New York and had a great apartment.
 - b. A: I dreamed I was you. I lived in New York and I had a great apartment...
 B: <u>I don't think</u> it was me that you dreamed you were. My apartment is pretty crappy.

(cf. Arregui, 2007: 36)

2.4. Parallel 4—Oneiric Reference Constraint

The pronouns of both constructions obey the Oneiric Reference Constraint (ORC), a syntactic constraint on pronoun movement that rules out any LF for dream reports in which some pronoun referring to the dream-self is asymmetrically c-commanded by a pronoun referring to the actual entity (cf. Percus and Sauerland, 2003: 5). The ORC explains why dream reports involving two pronouns with the same agreement features (e.g. (12)) are ambiguous between only three readings, even though there are four possible combinations of the consequent pronouns' referents (i.e. the actual-John and his dream-self): It disallows that reading in which the first pronoun refers to the actual self of the dreamer, while the second one refers to that person's dream-self (26d) (cf. ibid.: 4).

- (12) John_i dreamed that (he_i was Peter_i and that) <u>he</u> was marrying <u>his</u> grand-daughter.
 - a. In John's dream, $he_{i\oplus j}$ marries $his_{i\oplus j}$ grand-daughter.
 - b. In John's dream, $he_{i\oplus j}$ marries his_i grand-daughter.
 - c. In John's dream, he_i marries his_i grand-daughter.
 - d. *In John's dream, he_i marries the his_{$i\oplus j$} grand-daughter.

In counteridenticals, we find a similar pattern (cf. (13)): Those pronouns which can be interpreted ambiguously between referring to the speaker's actual self and the person s/he counterfactually identifies with obey the ORC. (Note that the first consequent pronoun, $I_{i\oplus j}$, is excluded from the constraint in this example since it can never refer back to the actual speaker). In (13), the ORC renders that reading infeasible, or at least marginal, in which the actual speaker's son shall play with the imagined daughter, i.e. that reading in which the pronoun referring to the counterfactual entity is within the local domain of the pronoun referring to the actual entity.

- (13) If we were you, I'd encourage my son to play with my daughter.
 - a. If I_i were you_j, $I_{i \oplus j}$ 'd encourage my_{i $\oplus j$} son to play with my_{i $\oplus j$} daughter.
 - b. If I_i were you_j, $I_{i \oplus j}$ 'd encourage my_{i $\oplus j$} son to play with my_i daughter.
 - c. If I_i were you_j, $I_{i \oplus j}$ 'd encourage my_i son to play with my_i daughter.
 - d. *If I_i were you_j, $I_{i\oplus j}$ 'd encourage my_i son to play with my_{i $\oplus j$} daughter.

In sum, we have provided at least four striking structural and conceptual parallels between counteridenticals and dream reports. These call for an analysis of counteridenticals on par with that of dream reports, which will be developed in the following section.

3. Analyzing Counteridenticals in Terms of Dream Reports

As with the analysis of any conditional, the overarching question to be answered in this section is what the worlds look like that the antecedent clause of a counteridentical takes us to. The first step to finding an answer to this question is figuring out how the composed counterpart individuals, i.e. those individuals that received an $i \oplus j$ -index in the above examples, are generated. This query is directly related to the interpretation of the copular clause 'x be-PAST y'. Once the counterpart individuals are felicitously generated, the analysis then needs to be able to explain the parallels observed between counteridenticals and dream reports.

3.1. The Meaning of 'If *X* Were *Y*'

When analyzing the identity clause embedded in the antecedent of a counteridentical, two empirical observations have to be accounted for. First, the antecedent clause If I were you does not mean the same as If you were me. For this and further reasons, an analysis that interprets both of these clauses by means of the relation I = you is ruled out, which is why this proposal refrains from interpreting the counteridentical antecedent as an equative copular clause (for a more detailed discussion see Kauf (2016)). Secondly, since the copular clause is responsible for generating the composed individual, it needs to be flexible with respect to the (re-)assignment of properties of the predicate entity onto the subject entity's counterpart. This constraint becomes evident when reconsidering examples (1) and (2), repeated here for convenience as (14) and (15). Whereas the former sentence triggers an ascription of only a partial set of the predicate entity's properties onto the counterpart (i.e. his/her financial situation in the scenario created above), the latter utterance is true either if the contextually relevant properties connected to being the chancellor of Germany are reassembled or if most/nearly all of Angela Merkel's properties are transferred onto the counterpart. This dichotomy boils down to the following distinction: Whereas the utterance in (14) is not necessarily true if the composed counterpart is assumed to have all of the contextually relevant properties of the predicate entity-in fact, in such 'advice' scenarios, it is usually assumed that the counterpart must have some of the subject entity's relevant properties (cf. Pelletier, 2004) -, the same configuration always makes utterance like (15) true; the subject entity's properties are not needed for the true outcome of the consequent proposition.

- (14) If I were you, I'd buy the blue dress.
- (15) If Paula were Angela Merkel, she'd be the chancellor of Germany.

To give an explanation to both of these observations, the proposal presented in this paper endorses the notion of asymmetric *be* as proposed by Percus and Sharvit (2014) in its redefinition by Zhang (2016) (indicated below by $\stackrel{\text{Zhang}}{=}$).

Percus and Sharvit receive motivation for the introduction of such an asymmetric *be*-operator from mistaken identity contexts like the following:

(16) [CONTEXT. Peter is throwing a party in honor of his cousin Dan who has just been awarded his PhD. All the guests know that it is a PhD party, but they don't all know Dan (and some of them, like Kevin, don't even know the new PhD's name). When Becky arrives, Kevin, who is already completely toasted, walks up to her with a big smile. 'You must be proud to be a doctor now,' he says. Seeing this, Jim says to Peter:]
a. Kevin thinks that Becky is Dan, (but he doesn't think that Dan is Becky).

In a nutshell, what the asymmetric copula in (16a) does is take an individual concept as its input and identify it with an individual x (Percus and Sharvit, 2014). If such an individual concept is overtly available, as in *Dan is the new PhD student*, the concept (here: being the new PhD student) is simply predicated as a property of the subject referent (here: Dan) by means of (17).

(17)
$$[\![PRED]\!]^w \stackrel{\text{Zhang}}{=} [\![be_{asymmetric}]\!]^w_{<< s, et>, et>} = \lambda P_{< s, et>}. \lambda x_e. P(w)(x)$$

For cases as in (16a), in which the copula is used to (mistakenly) identify a person with another individual instead of with an overt individual concept, Percus and Sharvit (2014) suggest a refinement of the semantics of asymmetric *be*. The predicate entity of the copular clause (here: Dan) is then first coerced into a contextually salient set of properties (here: being the new PhD student) before $[PRED]^w$ can be applied to predicate this set of properties of the subject entity (here: Becky) (cf. (18)).

(18) $[\![PRED y]\!]^{w} \stackrel{\text{Zhang}}{=} [\![be_{asymmetric}]\!]_{<e,et>}^{w} = \lambda y_{e}. \ \lambda x_{e}. P_{(w,y)}(w)(x),$ where $P_{(w,y)}$ of type < s,et > represents the coersion of the individual y into some contextually salient set of properties in a world w

Thus, the sentence (16a) comes out to be true if and only if in all of Kevin's epistemically accessible worlds, Becky's counterpart possesses Dan's contextually salient properties; she is the new PhD student.

Turning back to the analysis of counteridenticals, the asymmetric *be*-operator proves to easily be able to explain the empirical observations stated above. Since the predicate entity is coerced into a set of properties that is subsequently predicated of the subject entity, the asymmetry in meaning between (19a) and (19b) is obtained for free: Whereas in the former clause, it is the addressee that is reduced to a set of properties and a counterpart individual of the speaker living in the counterfactual world is reassigned these properties, in the latter it is reversed. Thus, when uttered in the same situation, the make-up of the counterpart individual in (19a) and (19b) can differ vastly, since the respective contextually salient properties are obtained from different individuals.

(19)	a.	If I were you	$\rightarrow P_{(w,you)}(w)(I)$
	b.	If you were me	$\rightarrow P_{(w,I)}(w)(you)$

At the same time, the same asymmetry also immediately accounts for the marginality of counteridenticals such as (3), repeated for convenience as (20), in which it is the predicate entity that the counterpart individual is referenced to and not the subject entity.

(20) ?/* If I were Angela Merkel, <u>her</u> name would be Carina.

The marginality originates from the clash that is obtained by the asymmetric *be*-operator's wanting to coerce Angela Merkel into a set of contextually relevant properties, here: name properties, and wanting to predicate it of the subject entity, i.e. the speaker, and the proposition expressed by the consequent proposition's centering around the coerced individual.

What is more, the asymmetric *be*-operator is also able to explain the second empirical observation, i.e. the different degrees of identification between the antecedent clause's subject and predicate. It is able to do so as it does not impose any restrictions on the set of properties which the predicate is coerced into. In (21), the speaker assumes the addressee's external properties

while keeping his/her internal properties intact, a strategy which enables him/her to give advice. Note again that in this case, the consequent property must neither be true of the subject nor the predicate in the actual world (for an example scenario, please refer back to sec. 1, par. 3). By contrast, the truth of the consequent clause in (22) is achieved if Peter is either completely identified with Angela Merkel in the counterfactual worlds or if he is merely identified with her in terms of her contextually relevant properties, i.e. her profession. In this case, the consequent property is always true of the predicate in the actual world. This can be made explicit by adding follow-up phrases to the examples that explicitly negate the truth of the consequent proposition if evaluated with respect to the predicate entity in the real world. Whereas such an extension does not affect the truth value of sentence (21), it turns the counteridentical in (22) false.

- (21) If I were you, I'd be buying the blue dress, which you are not buying.
- (22) *If Peter were Angela Merkel, he'd be the chancellor of Germany, which she isn't.

In addition to being able to explain these empirical observation, the asymmetric *be*-operator is conceptually appealing. Consider for example the sentence in (23):

(23) If Peter weren't Peter, the situation would have escalated.

When interpreting such sentences, we do not imagine worlds in which Peter is not Peter. Rather, what we infer is that if we were taken to a world in which Peter does not have the contextually relevant set of properties, i.e. being forgiving/calm/funny/etc—but might be just like Peter otherwise –, then the consequent proposition would hold of his counterpart.

All things considered, Percus and Sharvit's (2014) asymmetric *be*-operator successfully captures the relation set up between the subject and predicate entity of a counteridentical antecedent clause.

3.2. Explaining the Parallels to Dream Reports

Once the proposal is able to describe the identity relation set up by the counteridentical's antecedent, it then needs to explain the parallels observed between counteridenticals and dream reports. In this context, it is especially the similarity with respect to the ORC which calls for an analysis of counteridenticals along the lines of Percus and Sauerland (2003).

In their analysis of dream reports, P&S propose to make use of concept generators in their realization as centered worlds; In his/her dream, the dreamer, *x*, identifies him-/herself with another individual, *y*, with respect to whom the consequent proposition is evaluated. In other words, P&S assign the predicate *dream* attitude verb-like semantics:

(24) $[[dream]]^g = \lambda P. \ \lambda x. \ \lambda w. For all < y, w' > in DREAM_{x,w}, P(y)(w') = 1.$ (DREAM_{x,w} stands for the set of pairs < y, w' > such that w' is a world compatible with x's dream in w, and y is the individual in w' who x, in w, identifies as himself.)

(ibid: 8)

Multiple pronoun reference in Percus and Sauerland (2003) is accounted for in the following way: Reference to the actual person is realized by means of an unstarred pronoun (underlined in the following example), which is analyzed *in situ* like a usual variable. It combines with a world parameter which, due to lambda-abstraction, receives its denotation from the worlds compatible with the agent's dream worlds, i.e. w'. Reference to the dream-self, on the other hand, is realized via a starred pronoun, which behaves similar to a relative pronoun: it does not receive an interpretation in situ but moves to the left periphery of the complement clause, which triggers a predicate abstraction over the trace it leaves behind (cf. Percus and Sauerland, 2003: 7f). Since P&S assume the denotation of 'dream' to be similar to that of attitude verbs, i.e. they assume that 'dream' quantifies over centered worlds and takes a property (the meaning of the complement clause) as an input (cf. (24)), such a movement leads to an identification of the moved pronoun with the center of worlds that are compatible with agent's dream worlds, i.e. the dream-self y. A possible logical form of a dream report under this proposal looks like the following:

- (25)[CONTEXT. In his dream, John is Fred]
 - (John) dreamed that he_{dream-self} was marrying his_{actual-self} grand-daughter.
 - dream [he* λ_3 [λw_1 [$_{VP} w_1 t_3$ was marrying [his₂ w₁] grand-daughter]]] a.
 - b. $\lambda x. \ \lambda w. \ \forall < y, w' > \in \text{DREAM}_{x,w}, y \text{ marries the grand-daughter of } g(2)(w') \text{ in } w'.$
 - This "property" will hold, e.g., of John, if he has a dream in which his dream-self, c. Fred, marries his own, i.e. John's, grand-daughter.

(ibid.: 10)

The ORC now excludes all those structures by means of a concept which P&S call 'superiority' in which a starred pronoun *pro*^{*} would have to move across an unstarred pronoun which a) asymmetrically c-commands it and which b) shares the same features pro* has (cf. Percus and Sauerland, 2003: 13ff) (compare with (12)):

(26)John dreamed that he was marrying his grand-daughter.

- In John's dream, he* λ_3 his* λ_4 [t_3 marries t_4 grand-daughter.] a.
- In John's dream, he* λ_3 [t_3 marries his grand-daughter.] b.
- In John's dream, [he marries his grand-daughter.] c.
- *In John's dream, his* λ_3 [he marries t_3 grand-daughter.] d.

In order to transfer P&S's analysis to counteridenticals and keep the implications it makes with respect to the ORC intact, some adaptations have to be made. First of all, the starred pronoun responsible for dream-self reference in P&S is dependent on the left periphery of the embedded CP as the landing site for its lambda abstractor, since it needs to be identified with the center of the speaker's doxastic worlds (cf. (25)). Nevertheless, with counteridenticals no such landing site seems to be available; They do not constitute attitude reports, or otherwise embedded sentences (where the complementizer is part of the embedded CP). One way to remedy this problem is to assume that, even though not visible, there actually is an underlying attitude report-like semantics in the meaning contribution of counteridenticals. Such an assumption receives independent motivation from proposals like Moltmann (2003), who suggests to interpret all propositions as attitudinal objects. For her, it is only in the presence of an illocutionary force

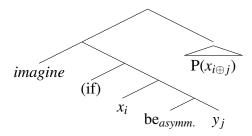
operator that independent sentences receive a 'complete meaning' (cf. 97). Under Moltmann's (2003) proposal, a simple declarative sentence such as (27) is thus interpreted as specifying a property of the speaker (cf. 97).

- (27) Mary is happy.
 - a. $\lambda x[R_{(ass,3)}(x, \langle Happy, T_1 \rangle, \langle Mary, T_2 \rangle)]$
 - b. An agent predicates, in the assertive mode, the property of being happy_{T_1} of Mary_{T_2}

(cf. Moltmann, 2003: 98)

In this example, R is an assertion-relation which connects the speaker of the sentence to the proposition that the property of being happy holds of Mary. Hereby, each of the propositional constituents in turn is perceived under a specific mode of presentation, T_i (following the standard literature on propositional attitudes). Whenever the attitudinal component and/or the agent are not specific, Moltmann (2003) suggests to make use of the most basic propositional attitude, that of entertaining, by means of which a way of relating the propositional argument to an agent is always ensured.

Without having to fall back on Moltmann's default relation of entertaining, we argue that for counteridenticals a relation which contributes an *imagine*-like meaning constitutes a suitable candidate for the attitudinal relation: *If* licenses an environment in which the proposition x *is* y is taken under a relation which has a similar meaning contribution as an *imagine*-operator (for a further proposal which establishes a relation between *if* and the presence of *imagine* cf. Anand (2006), p.c.). The speaker predicates, in an *imagine*-like-mode, the counteridentical's consequent property of his/her counterfactual-self (cf. (29)). Without committing ourselves to the existence of an *imagine*-operator or an exact location to which it applies in the semantics, we suggest the following interpretation of counteridenticals:



As a result of this structure, a (covert) landing site for the starred pronoun needed for an analysis of counteridenticals on par with P&S's dream reports analysis is created below the operator.

That the presence of *if* licenses the presence of (a covert) *imagine*-like-operator can be independently supported, for example by considering conditional sentences like the following. In (28), an *imagine*-operator occurs overtly, arguably without triggering a change in meaning. Furthermore, the example shows that the antecedent clause of a counteridentical functions as the restrictor of the *imagine*-worlds, since the consequent clause is not obligatory, but can be pragmatically inferred from knowing which worlds to consider based on the antecedent proposition.

(28) (Imagine) If Julius had been Peter!

Under the made assumptions, counteridentical antecedent clauses thus receive the following, preliminary interpretation:

(29) *Preliminary*

 $\llbracket \text{If } x \text{ were } y \rrbracket^g = \llbracket \text{imagine } [x \text{ be } y \rrbracket^g = \lambda Q. \quad \lambda x. \quad \lambda w. \quad \forall < y, w' > \text{ in IMAGINE}_{x,w}: \\ Q(y)(w') = 1. \qquad (\text{based on Percus and Sauerland, 2003: 8})$

The denotation of $IMAGINE_{x,w}$ (cf. (29)) is based on that of P&S's $DREAM_{x,w}$. Nevertheless, given the insights derived from the interpretation of the antecedent clause in the preceding section, the worlds imagined by the speaker are restricted to those which incorporate the additional ingredient of Percus and Sharvit's (2014) asymmetric *be*-copula. Hence, the worlds a counteridentical antecedent clause takes us to can, preliminarily, be described as follows:

(30) IMAGINE_{*x,w*} = { $\langle y, w' \rangle | w'$ is a world compatible with the worlds *x* imagines in *w*, and *y* is the individual in *w'* from whom *x*, in *w*, takes over a contextually relevant set of properties (meaning that $P_{(w,y)}(w')(x) = 1$, where $P_{(w,y)}$ of type $\langle s, et \rangle$ represents the coersion of the individual *y* into a contextually salient set of properties in *w*)}. (based on P&S 2003; Percus&Sharvit 2014)

With these semantics in place, multiple pronoun reference in the counteridentical's consequent clause can be accounted for as in Percus and Sauerland (2003) (cf. (25)), leading to the following analysis of (31).

- (31) (If I were you,) I_{imagine-self}'d love me_{actual-self}.
 - a. (I) imagine [I* λ_3 [λw_1 [$_{VP} w_1 t_3$ love [me₂ w_1]]]
 - b. $\lambda x. \ \lambda w. \ \forall < y, w' > \text{ in IMAGINE}_{x,w}: y \text{ loves } g(2)(w') \text{ in } w'.$
 - c. This property will hold, e.g., of the speaker, if for all of his/her imagined world, at which s/he takes over contextually relevant properties from the addressee, his/her imagined self loves his/her actual self. (cf. ibid: 8)

Reference to the actual speaker is achieved through *in situ*-interpretation of the first person pronouns (cf. me₂ in (31)). By contrast, reference to the dream-self, i.e. the addressee, is realized via a starred pronoun (cf. I* in (31)) which moves to the left periphery of the complement clause, thereby triggering a predicate abstraction over the trace it leaves behind. Since IMAGINE_{*x*,*w*} is assumed to quantify over centered worlds and takes the meaning of the complement clause as an input, the starred pronoun gets associated with the counterpart individual, *y* (cf. (29)). The ORC effects then follow parallel to those in dream reports.

Even though the proposal as it stands provides answers to several crucial questions in the analysis of counteridenticals, it has (at least) two shortcomings. First, unlike in P&S's analysis of dream reports, in the current analysis of counteridenticals, the antecedent's predicate entity, y, should not be the same as the consequent y (as we're proposing that the predicate entity is only an individual that the subject entity takes over properties from, but not one s/he completely identifies with). This challenge also becomes evident when considering that the asymmetric *be*-operator actually wants to quantify over 'subject entity-centered' worlds and not 'predicate entity'-centered worlds, as it currently does (cf. *If I were you* $\rightarrow P_{(w,you)}(w)(I)$, where *I* is the individual that constitutes the counterpart individual at the counterfactual world, albeit with properties of the addressee, whereas the addressee is the individual that is merely coerced into a set of properties). Secondly, the proposed analysis so far can only account for counteridenticals in which the person setting up the counterfactual scenario is the same as the subject entity of the counteridentical's antecedent clause, as in (31). Nevertheless, a theory of counteridentical meaning should be able to also account for sentences like *If Peter were Susan, he would VP* and *If you were me, you would VP*, where a speaker is imagining worlds in which another person is counterfactually identified with a third person/the speaker.

In order to solve the first challenge, we tentatively propose that the antecedent and consequent y's in (29) are in fact not the same. Instead, a new variable, z, is introduced which references the counterpart individual—the individual of whom the consequent proposition holds. In the new analysis, z and not y constitutes the center of the IMAGINE-worlds x sets up. The counterpart individual z is able to receive the relevant combination of properties from the antecedent clause's subject and predicate entities in the following way: On the one hand, it provides the second argument of the asymmetric *be*-function, which is thus assigned the set of properties the predicate entity y is coerced into. On the other hand, it is associated with, and thereby receives the missing properties from, the subject entity x by postulating that the presupposition $z \simeq_{w'} x$ is part of the meaning contribution of *imagine*.

Independent evidence for the introduction of another entity variable, z, for the counterpart individual can be obtained by considering counteridenticals like (32), in which reference to all three individuals, the antecedent's subject and predicate entity, and their shared counterpart individual is made.

(32) If I_i were you_j, $I_{i \oplus j}$ 'd be sitting where you_j are and $I_{i \oplus j}$ 'd be looking at me_i.

Under this proposal, we receive the following analysis of the sentence If I were you, I'd kiss me:

- (33) If I were you, I_{imagined-self}'d kiss me_{actual-self}.
 - a. [[(I) imagine [I be you]] [I* λ_3 [λw_1 [$v_P w_1 t_3$ kiss [me₂ w_1]]]]
 - b. $[\lambda y. \lambda x. \lambda w. \forall \langle z, w' \rangle \text{ in } \{ \text{ IMAGINE}_{x,w} \land P_{(w,y)}(w')(z) : z \simeq_{w'} x \} \rightarrow z \text{ kisses} g(2)(w') \text{ in } w'](you)(I)$
 - c. True iff for all of the speaker's imagined worlds at which his/her imagined self takes over a set of contextually relevant properties from the addressee, his/her imagined self kisses his/her actual self.

To account for the second challenge, i.e. counteridenticals in which the speaker is imagining worlds in which not s/he but another person is identified with a third person, we tentatively suggest to detach the center of the imagined worlds from the imaginer him-/herself. Via a counteridentical's antecedent, a speaker attitudinally relates him-/herself to a counteridentical proposition centering around a person a, i.e. s/he imagines an entity a to have a property, based on which s/he draws a consequence in the consequent clause about the 'altered a'. Whereas

the speaker is the default imaginer of a counteridentical, a may or may not be the speaker him-/herself or a different person (cf. (34)). Since the embedded clause of this 'attitude report' (here: the counteridentical) only attaches below this matrix clause, the lambda abstractor responsible for the interpretation of the starred pronoun, yielding the counterfactual counterpart of a according to the dream-report proposals, can receive its information from a and is not dependent on the speaker. Phrased differently and everything put together, we thus propose counteridentical antecedents to have semantics along the following lines:

(34) Final Version

- a. $[[If a were y]]^g = [[imagine_{sp(c)} [a be y]]]^g = \lambda Q. \ \lambda a. \ \lambda y. \ \lambda w. \\ \forall < z, w' > in \{ IMAGINE_{(sp(c),w),a} \land P_{(w,y)}(w')(z) : z \simeq_{w'} a \} \to Q(z)(w') = 1, \\ whereby sp(c) = speaker, and$
- b. IMAGINE_{(sp(c),w),a} = {< z, w' > |w' is a world compatible with the worlds sp(c) imagines in w, and z is the individual in w' which sp(c), in w, identifies with a and $P_{(w,y)}(w')(z)$, meaning that z possesses y's contextually salient properties}.²

The fact that the presupposition relation $\simeq_{w'}$ always relates the counterpart individual to the subject entity and not the speaker can be independently supported via applying well-known presupposition projection tests, like the subsequent, in which the relevant presupposition $a \simeq_{w'} z$ projects across the board:

With the semantics in (34), a sentence like (35) then receives the following interpretation:

(35) SCENARIO. Susan, in real life, has a brother, but Sue does not have one.

If Susan were Sue, she_{imagined-self}'d be in love with her_{actual-self} brother.

- a. imagine_{sp(c)} of Susan [she* λ_3 [λw_1 [$_{VP} w_1 t_3$ be in love with [[her₂ w₁] brother]]]]
- b. $[\lambda w. \forall \langle z, w' \rangle \text{ in } \{ \text{ IMAGINE}_{(\operatorname{sp}(c), w), \operatorname{Susan}} \land P_{(w, y)}(w')(z) : z \simeq_{w'} a \} \rightarrow z \text{ kisses} g(2)(w') \text{ in } w']$
- c. True iff for all of the speaker's imagined worlds at which Susan's counterpart self takes over a set of contextually relevant properties from Sue, this counterpart self of Susan is in love with Susan's actual brother.

One further tentative argument in favor of an analysis which incorporates two differently centered worlds—i.e. a world centered around the speaker and one centered around the subject entity's counterpart—is that it predicts the duality of deixis observed in counteridenticals: Whereas some indexicals seem to always be anchored to the speaker (cf. (36)), others seem to be relative to either the subject entity or the counterfactual counterpart (cf. (37)). Note that in the examples, the relevant deictic center has been made explicit by means of subscripts. Interestingly, the observed deictic relations persist regardless of the entities identified with each other by means of the antecedent clause.

 $^{^2}$ Note that when a speaker is reporting a counteridentical another person is attitudinally related to (e.g. *Susan thinks that if Peter were John, he VP*), the value of the imaginer in the semantics change accordingly. The report's speaker then is attitudinally related to predicating a counteridentical attitude to the attitude holder, here Susan, likely via an assertion or entertaining relation (cf. Moltmann, 2003).

- (36) a. If I were Mary, I wouldn't be dating that horrid guy_[attitude of speaker].
 - b. If Paula were Mary, she would be $\underline{here}_{[speaker]}$ right $\underline{now}_{[speaker]}$.
- (37) SCENARIO. Assuming Mary is at the beach in Spain.
 - a. If I were Mary, I would taste all of the <u>local_[Mary/speaker]</u> goodies.
 - b. If Paula were Mary, she'd jump into the sea in front of her_[Paula/Mary].

3.3. Interim Conclusion

Under the proposed analysis, the striking parallels between counteridenticals and dream reports laid out in Section 2 receive a proper explanation. The fact that identity statements like *I was you* can be felicitously used in counteridenticals and dream reports (Section 2.1) can be explained via the proposal's implementation of Percus and Sharvit's (2014) asymmetric *be*-operator which induces the creation of a counterpart of the subject entity at the counterfactual worlds without assuming proper identification. The parallel in identity inferences (Section 2.2), follows directly from the similar assumptions of composed individuals and how the composition comes about (also cf. Section 1 for a discussion). The Oneiric Reference Constraint (Section 2.3) follows directly by suggesting counteridentical LFs to be along the lines of P&S's dream report analysis. Finally, the similarities with respect to the Principle B effects follow from assuming a difference between the real individuals and their shared counterpart.

4. Implications and Open Questions

After having laid out how the analysis works in detail, this section sets out to discuss further predictions the proposal makes and questions it raises.

Let us first reconsider the asymmetric *be*-operator discussed in section 3.1. One of the reasons we adopted the operator for our analysis was its flexibility with respect to the amount of properties it coerces the predicate entity into before predicating them of the subject entity to create a suitable counterpart individual at the counterfactual worlds. Given this flexibility, the proposal predicts counteridentical antecedent clauses to have a variety of meanings, ranging from limited, partial contextually relevant property reassignment to complete (contextually relevant) identification. Counteridenticals in which the composed counterpart only takes over a *partial* set of contextually relevant properties from the predicate entity will henceforth be referred to as 'advice' counteridenticals. Counteridenticals which demand complete, at least contextually relevant, identification are dubbed 'imagine' counteridenticals.³ In this context, it is crucial that

a. If \overline{I} were you, I'd totally go, it sounds like so much fun ... but, then again, if I were \overline{you} , I probably wouldn't go, I don't think you'd be able to enjoy it.

 $^{^{3}}$ Note that by means of adding focus one can easily shift between the two types of counteridenticals. To prove this point, consider the following scenario. In the first clause the speaker makes use of an 'advice' counteridentical whereas the second clause consists of an 'imagine' counteridentical:

⁽i) SCENARIO. You are afraid of heights whereas I love the thrill. You were invited to go sky-diving and are asking me what to do and I say ...

Even though the antecedent clause remains the same in both conditionals and the consequent clauses oppose each other, we understand the utterance. Given the different foci, the clauses do not pose a contradiction to each other.

the term 'advice' counteridenticals is solely dependent on the partial reascription of properties from one individual to another and not on usual pragmatic assumptions about advice giving, i.e. it is usually uttered in a speaker-addressee context and given about the future. As a result, both of the following sentences count as 'advice' counteridenticals for the purposes of this paper:

(38) 'Advice' counteridenticals

- a. If I were you, I'd buy the blue dress. (I like it much better than the green one.)
- b. If I were Stephen Hawking, I would've insisted on a speaking device with a British accent. (It surprises me that he didn't.)

For the same reason, counteridentical antecedents within the usual setting of advice giving (as described above) can receive an 'imagine' interpretation:

(39) 'Imagine' counteridenticals

- a. If Paula were Angela Merkel, she'd be the chancellor of Germany.
- b. (I'm so jealous of you right now.) If I were you, I would already be done with all of my papers and could enjoy the weather. (Instead, I am stuck at my desk.)

A naïve empirical test which strengthens the intuition that there is a difference in meaning between 'imagine' and an 'advice' counteridenticals is to replace the antecedent clauses by 'in {predicate entity}'s shoes'—forcing an advice-reading—and checking the acceptability of the resulting clause for the intended meaning. From the sample comparison in (40) we see that the test results in a degraded judgment for the 'imagine' counteridentical whereas the 'advice' counteridentical's meaning remains unchanged.

- (40) a. In your shoes, I'd buy the blue dress.
 - b. *In your shoes, I would already be done with all of my papers.

Across languages, both the 'advice' and the 'imagine' readings can be found, as predicted. Also across languages, we usually find constructions like *In s.o.'s shoes*, which can felicitously replace the copular antecedent clause in 'advice' counteridenticals but not 'imagine' counteridenticals. Interestingly, however, in many languages, the availability of such constructions does not block the copular clause-antecedent for 'advice' counteridenticals, rendering the 'advice' and the 'imagine' readings vastly unspecified (e.g. in English, German, French, Dutch).

Nevertheless, other languages do disambiguate between these readings. One strategy hereby consists of having different, designated antecedent clauses for the two kinds of counteridenticals which stand in complementary distribution to each other, thus enabling a blocking of the other reading. This is for example the case for Polish, Greek or LIBRAS (for an in-depth discussion, see Kauf, 2016). In Polish, the construction usually used to express counteridenticals, i.e. past tense-marking of the copula in combination with the subjunctive mood (*Gdybym był toba* [= literally: I be-PAST you]), is restricted to the 'imagine' reading of counteridenticals, even though the copula is not generally restricted to equative contexts. In the case of 'advice' counteridentical, by contrast, speakers of Polish must make use of a paraphrase structure (*Na Twoim miejscu* [= literally: On your spot]) (p.c. Z. Fuchs; Kauf (2016)).

In other languages it is the grammatical tense of the consequent clause which helps to distinguish between the two readings: According to Han (1996), counterfactuality in Korean arises via a conversational implicature that is drawn when a conditional sentence uses past-tense morphology in its antecedent and future-tense morphology in its consequent (cf. ibid.: 5). Extending Han's morphological discussion, the following four grammatical structures have been approved for Korean present counterfactuals by Ahn and judged with respect to their validity for the two uses of counteridentical antecedents (p.c.):

1. [V-Pastif] [V-Fut]	['Advice' √/'Imagine' √]
2. [V-Pastif] [V-Past-Fut]	['Advice' √/'Imagine' √]
3. [V-Pastif] [V-Past]	['Advice' √/'Imagine' √]
4. [V-Pastif] [V-Pres]	['Advice' √/'Imagine' *]
	(Han 1996, extended by Ahn $(p.c.)^4$)

What is notable about this data for the purpose of this paper is that the use of the PRES-IND in the consequent forces an 'advice' reading, while all other structures can be used ambiguously between the two suggested interpretations. To illustrate this distinction more clearly, consider the following set of example sentences, provided by Ahn (p.c.), where 'Advice'-readings presuppose a context in which the speaker proclaims what he would do if he were in Mary's situation—he would go into the sea, even though she might not –, and the 'Imagine'-counteridentical version could, for example, be uttered in a scenario in which the speaker has just received a message with a picture showing Mary going into the sea at this moment and is now fantasizing about being her.

- (41) If I were Mary, I would go into the sea right now.
 - a. Nay-ka Mary-i-ess-tamyen, cikum-ccum pata-ey teleka-l.kess-ita. [A/I] I-NOM Mary-be-PAST-if around.now ocean-DAT enter-FUT-IND 'If I were Mary, I would go in the sea right now.'
 - b. Nay-ka Mary-i-ess-tamyen, cikum-ccum pata-ey teleka-ss-ul.kess.ita. [A/I] I-NOM Mary-be-PAST-if around.now ocean-DAT enter-PAST-FUT-IND 'If I were Mary, I would go in the sea right now.'
 - c. Nay-ka Mary-i-ess-tamyen, cikum-ccum pata-ey teleka-ss-ta. [A/I] I-NOM Mary-be-PAST-if around.now ocean-DAT enter-PAST-IND 'If I were Mary, I would go in the sea right now.'
 - d. Nay-ka Mary-i-ess-tamyen, cikum-ccum pata-ey teleka-n-ta. [A/*I] I-NOM Mary-be-PAST-if around.now ocean-DAT enter-PRES-IND 'If I were Mary, I would go in the sea right now.'

The proposal thus correctly predicts the antecedent clause of counteridenticals to have different meanings in addition to being able to explain the parallels between counteridenticals and dream reports. In these respects it fares better than existing analyses of counteridentical meaning like Kocurek (2016) and Lakoff (1996) (for a detailed discussion, see Kauf (2016)). At the same time, however, it raises several questions.

⁴ For reasons of clarity and comprehensibility, this analysis has been limited to Korean present counterfactuals. For an in-depth analysis of Korean past counterfactuals, the reader is encouraged to consult Han (1996).

A first question which should be answered as part of future research is why the principle B violations persist in the case that $a \neq y$ (Section 2.1), i.e. whenever we are talking about 2nd/3rd person pronouns. One potential answer consists in assuming a speaker special hypothesis to be at work. Following this line of argumentation, Arregui (2007), suggests that first person pronouns allow for special binding, namely *de se* binding (cf. 38). A tentative answer in line with the analysis proposed in this paper is that only for first person pronouns it is the case that the center of the dream worlds is associated with the speaker, i.e. the default imaginer. For all other values of *a*, the imaginer and the center of the imagine worlds are distinct. Finding answers to this question might also help to shed further light on the integration of the analyses of counteridenticals and dream reports, since reports like *I dreamed that Peter was John and that he married his brother* seem parallel to counteridenticals with second and third person subjects, but have not been included in Percus and Sauerland's (2003) theory.

Another, more pressing, question concerns the proposal's compatibility with existing analyses of counterfactual meaning. In the beginning of this paper it was stated that counteridenticals are first and foremost counterfactuals; hence, standard analyses of counterfactuals (e.g. Iatridou (2000) and Ippolito (2013)) should be applicable to counteridenticals as well. Interestingly, however, these analyses are not trivially able to capture the correct meaning of counteridenticals (for a more detailed discussion see Kauf (2016)). Under past-as-past analyses like Ippolito (2013) it is in particular the assumption of a historical accessibility relation that is not philosophically trivial. In stipulating such a relation, we would have to assume-everything else remaining the same-that there is a point in time in the past such that some kind of ghost develops into one person in one set of continuations of those worlds while developing into another person in another set of continuations. It seems doubtful, however, that such a point in time should exist. An alternative was recently presented by Krifka (2018), who also interprets the past morphology in the counterfactuals as a real past, but proposes it to quantify over commitment spaces rather than worlds; hence, the philosophical concerns do not necessarily arise. Under past-as-fake proposals like Iatridou (2000), the main difficulty concerning the analysis of counteridenticals arises from the definition of the closest worlds. Whereas it is true for 'imagine' counteridenticals that in all those closest worlds in which the antecedent clause holds, i.e. in which the subject entity is identified with the predicate entity, the counterpart entity does whatever the predicate entity does, the same conditionality relation is inherently rejected for 'advice' counteridenticals; these contrary-to-fact worlds are twice removed from the actual world: The subject entity is not the same as the predicate entity, and his/her counterpart does not necessarily do what the predicate entity would do in the consequent situation (cf. sec.1 par 3 for an example situation). Hence, some other factors must be at play.

A question which immediately arises for the current proposal in this context is whether the \forall quantifier in the denotation of *imagine* requires a similarity relation. Of course, we can imagine all kinds of worlds; nevertheless, underlying the semantic representation of counteridenticals is the constraint to stay as close to the real world as possible when imagining worlds at which the antecedent proposition holds. A further prediction this proposal thus makes is that every (counterfactual) conditional licenses a covert, center-inducing *imagine*-like operator. The investigation of these and further questions, like the proposal's interaction with focus or aspect, is left to future research.

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