

NOTES ON *MÊME* AND ITS ADDITIVITY*

NOTAS SOBRE *MESMO* E SUA ADITIVIDADE

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Abstract: *This paper discusses the behavior of even-like particles (e.g. French même) when interacting with entailment-based scales, pragmatically incompatible alternatives and semantically incompatible alternatives. Standard approaches to even-like particles assume that such operators convey the assertion that the prejacent proposition is true; they also induce a scalar presupposition to the effect that the prejacent proposition is higher on a suitably defined scale, and an additive presupposition to the effect that an alternative proposition in the same scale is also true. We submit preliminary evidence from Italian arguing against the assumption that even-like particles are necessarily additive and suggesting that the scalar presuppositions requires a pragmatic (or “rhetorical”) ordering.*

Keywords: *Même. Presupposition. Additivity.*

Resumo: *Este artigo discute o comportamento de partículas uniformes (ex. même do francês) na interação com escalas baseadas em alternativas pragmática e semanticamente incompatíveis. Abordagens padrão para partículas uniformes assumem que tais operadores transmitem a afirmação de que a proposição precedente é verdadeira; também induzem uma escala de pressuposição no sentido de que a proposição precedente é mais alta em uma escala adequadamente definida, e uma pressuposição aditiva, no sentido de que uma proposição alternativa, em uma mesma escala, também é verdadeira. Apresentamos evidências preliminares do Italiano tanto para argumentar contra a posição de que partículas uniformes são necessariamente aditivas quanto para sugerir que as pressuposições escalares necessitam de uma ordenação pragmática (ou “retórica”).*

Palavras-chave: *Même. Pressuposição. Aditividade.*

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Introduction

In this contribution, we discuss the behavior of what the relevant literature sometimes refers to as “scalar additive operators”, such as Fr. *même*, Engl. *even*, Germ. *sogar*, Span. *aun* and Ital. *perfino* (cf. e.g. Gast and van der Auwera 2011). It is maintained that an expression such as *même* applies on and modifies a preajacent proposition p , with respect to a possible world w and a relevant set of (explicit or implicit) ordered alternatives S (the latter is generally referred to as a “scale”, cf. e.g. Horn 1972, Ducrot 1980, Anscombe and Ducrot 1983). This is illustrated, in abstract terms, in (2). The result of the application is the generation of a complex meaning, which could be analyzed as the conjunction of three partial meaning contributions: As reported in (2a), the preajacent proposition is assumed to be true in w ; as reported in (2b), at least one distinct alternative in S is assumed to be true in w ; and finally, as reported in (2c), the preajacent proposition is assumed to be higher (in an underspecified sense) in S than any distinct alternative.

- (1) $S = \{p', p\}$
- (2) *même* (S) (p) (w)
 - a. p is true in w ,
 - b. p' is true in w ,
 - c. p is higher than p' in S .

While the first partial contribution, that is (2a), is assumed to enjoy an assertive flavour, the second and the third partial contributions, that is (2b) and (2c), are described as being presuppositional in nature. More precisely, in the standard account it is maintained that *même* induces respectively an additive presupposition and a scalar presupposition (cf. e.g. Horn 1969, Karttunen and Peters 1979, Rooth 1985, 1992). Consider for illustration the sentence in (4), interpreted against a scale in which the proposition p [*Pierre*] is higher than the alternative p' [*Paul*] (this might be so, for example, because the fact that Pierre came was for some reason less expected than the fact that Paul came). In this case, it is easy to realize that the sentence would be uttered infelicitously in case Pierre was actually lower in the relevant order, and in case Paul did not also come; in other terms, the sentence would be uttered infelicitously in case one or both presuppositions, which the standard discussion assumes to be generated via application of *même*, is not satisfied.

- (3) $S_0 = \{p' [\text{Paul}], p [\text{Pierre}]\}$
- (4) *Même Pierre est venu.* (Ducrot 1980, p. 16)
 - a. *Pierre est venu* is true in w ,
 - b. *Paul est venu* is true in w ,
 - c. *Pierre est venu* is higher in S_0 than *Paul est venu*.

Our specific focus in this paper will be on *même* when interacting with various kinds of ordered alternatives. In particular, we will focus on the interaction of *même* with canonical orders (i.e. entailment-based scales, cf. e.g. Chierchia 2004), pragmatically incompatible alternatives (i.e. so-called “rank orders”; cf. e.g. Lehrer 1974, Horn 1989, 2009), and semantically incompatible alternatives (cf. e.g. Ducrot 1980). According to our informal interpretation, a set of ordered and incompatible alternatives is one in which propositions are organized in virtue of a linear ordering relation, though they cannot be true at the same time, thus enjoying the property often referred to as “mutual exclusiveness” in the literature (cf. e.g. Greenberg 2016, Pistoia-Reda 2019). In the case of pragmatically incompatible alternatives, the incompatibility among alternatives derives from contextual knowledge, while in the case of semantically incompatible alternatives it derives from linguistic knowledge alone.

As we will discuss, the interaction of *même* with incompatible alternatives can be taken as evidence that the additive presupposition is not necessarily needed, thus breaking with the literature (cf. also discussion in Greenberg 2016, 2017, Rullmann 1997). In order to provide a further illustration of our point, we will submit evidence coming from Italian showing that, when

interacting with incompatible alternatives, *même* is more felicitously translated with the scalar and non-additive operator *addirittura*, rather than with the scalar and additive operator *perfino*. Our preliminary conclusion in this work will be that *même* is not inherently additive, and also that the scalar presupposition, which seems instead to be necessarily generated, requires pragmatic (or “rhetorical”, cf. Jasinskaja and Karagjosova 2020) ordering relations.

même with compatible orders

We begin by discussing the sentence reported in (6), taken again from Ducrot’s *Les échelles argumentatives*. This case provides an illustration of the interaction between *même* and canonical orders, such as the scale of positive quantifiers reported in (5), with a direction of entailment from right to left. For convenience, in our analysis we focus on the embedded universal sentence *Tu as lu tous les livres de Chomsky* and on the existential alternative *Tu as lu quelques livres de Chomsky*.

- (5) $S_1 = \{p'' \text{ [quelques]}, p' \text{ [beaucoup]}, p \text{ [tous]}\}$
- (6) *Tu as lu quelques livres de Chomsky, et même beaucoup, ou même tous.*
(Ducrot 1980, p. 65)
- a. *Tu as lu tous les livres de Chomsky* is true in *w*,
 - b. *Tu as lu quelques livres de Chomsky* is true in *w*,
 - c. *Tu as lu tous les livres de Chomsky* is higher in S_1 than *Tu a lu quelques livres de Chomsky*.

We submit two observations with respect to this case. Our observations originate in the oddness effects which we argue are produced in the variants reported in (7) and (8) below. Let us begin our discussion from the first oddness observed. For convenience, in our analysis we focus on the embedded existential sentence *Tu as lu quelques livres de Chomsky* and on the universal alternative *Tu as lu tous les livres de Chomsky*.

- (7) # *Tu as lu tous les livres de Chomsky, et même beaucoup, ou même quelques.*
- a. *Tu as lu quelques livres de Chomsky* is true in *w*,
 - b. *Tu as lu tous les livres de Chomsky* is true in *w*,
 - c. *Tu as lu quelques livres de Chomsky* is higher in S_1 than *Tu as lu tous les livres de Chomsky*.

Our understanding is that (7)’s infelicity reveals that a scalar presupposition is generated in this case. The reasoning goes as follows: Let us assume that a scalar presupposition is indeed generated, in accordance with the standard account. The prejacent proposition *p* to which *même* applies must be higher on a relevant scale than some other relevant alternative from the same scale. Note that, as we reported, in this case the prejacent proposition is equivalent to *Tu as lu quelques livres de Chomsky*, while the alternative proposition is equivalent to *Tu as lu tous les livres de Chomsky*. But, as it is easy to realize, the latter proposition is **actually higher in (5) than the prejacent proposition, due to direction of entailment we mentioned above. As a consequence, due to a presupposition failure, the sentence is expected to produce an infelicity effect, in accordance with our intuitions.**¹

Let us now consider the second oddness observed. For convenience, in our analysis we focus on the universal sentence *Tu as lu tous les livres de Chomsky* and on the existential alternative *Tu as lu quelques livres de Chomsky*.

- (8) # *Tu as même lu tous les livres de Chomsky, mais pas beaucoup ou quelques.*
- a. *Tu as lu tous les livres de Chomsky* is true in *w*,

¹ On an alternative explanation, the sentence is odd because it is redundant.

- b. Tu as lu quelques livres de Chomsky is true in w,
- c. Tu as lu tous les livres de Chomsky is higher in S¹ than Tu as lu quelques livres de Chomsky.

Our understanding is that (8)'s infelicity might be taken as revealing that an additive presupposition is generated in this case. The reasoning could go as follows: Let us assume that an additive presupposition is indeed generated, in accordance with the standard account. An alternative proposition from the same scale must be true in addition to the proposition p to which *même* applies. Note that, as we reported, in this case the prejacent proposition p is equivalent to Tu as lu tous les livres de Chomsky, while the alternative proposition is Tu as lu quelques livres de Chomsky. The latter is assumed to be true, then, in addition to the modified proposition p, on the standard account. Then, since the sentence is precisely negating that such alternative proposition holds, it is expected to produce an infelicity effect, in accordance with our intuitions. However, against this explanation, it is important to note that (8) expresses a contradiction, so its oddness is expected anyway. In this connection, note, crucially, that the same behavior can be observed also after removing *même* from the relevant sentence.

We conclude that, when interacting with canonical orders, *même* would appear to induce a scalar presupposition, though it is unclear whether an additive presupposition is also induced.

même with incompatible orders

même with pragmatically incompatible orders

We now focus on a case in which *même* interacts with pragmatically incompatible orders, such as the rank order reported below in (9). Following the literature, we can describe a rank order as a set of alternatives in which propositions are linearly ordered but at the same time they are incompatible in light of contextual knowledge. For illustration, consider that, with respect to (9), contextual knowledge entails that being a full professor is higher (i.e. pragmatically stronger) than being an associate professor or a researcher, but also that being a full professor is incompatible with being at the same time an associate professor or a researcher.²

- (9) S₂ = {p'' [chercheur] | p' [associé] | p [ordinaire]}

In what follows, we submit two observations. To begin with, we submit that, when the prejacent proposition p is lower than the alternative proposition, the complex sentence in which *même* modifies p is bound to sound infelicitous. In other words, *même* gives rise to a scalar presupposition also with rank orders. This is demonstrated, according to our understanding, by the oddness of (10b), in which *même* associates with a lower item in the relevant ordering S₂. The variant reported in (10a), in which *même* modifies a proposition containing the highest term in the scale is instead perfectly acceptable. We conclude that a presupposition failure can be said to be responsible for the oddness observed, also in this case.

- (10) A: Claire a une super carrière. J'ai entendu dire qu'elle est devenue professeure associée; (adapted from Rullman 1997, p. 45; cf. also Greenberg 2021)

B: #*même* professeure ordinaire.

- i. Claire est devenue professeure ordinaire is true in w,
- ii. Claire est devenue professeure associée is true in w,
- iii. Claire est devenue professeure ordinaire is higher in S₂ than Claire est

² It should be recognized that, on an alternative explanation, rank orders can be mapped into entailment-based orders. Assume an interpretation of academic positions in terms of powers or authorities; then, it is possible to intend the property of being an associate professor as a subset of the property of being a full professor (cf. e.g. Riester 2006).

devenue professeure associée.

B': # même chercheuse.

- i. Claire est devenue chercheuse is true in w,
- ii. Claire est devenue professeure ordinaire is true in w,
- iii. Claire est devenue chercheuse is higher in S2 than Claire est devenue professeure ordinaire.

Let us now focus on the additive presupposition. In this connection, we would like to submit that, given the contextual incompatibility between the alternative propositions, this particular presupposition, to the effect that some other alternative from the same scale also holds, cannot be satisfied in this case. This is something one could argue based on the fact that the variant reported in (11) is felicitous (though it appears slightly redundant: As we mentioned above, Claire not being a full professor implies her not being an associate or a researcher). The standard account, however, assumes the additive presupposition described in (11b) to be generated in this case. Since this presuppositional content is in contradiction with the second part of the sentence, an infelicity effect is predicted on the standard account, crucially against intuitions.

- (11) Claire est même devenue professeure ordinaire, et non pas associée ou chercheuse.
- a. Claire est devenue professeure ordinaire is true in w,
 - b. Claire est devenue professeure associée is true in w,
 - c. Claire est devenue professeure ordinaire is higher in S2 than Claire est devenue professeure associée.

We then conclude that, when interacting with rank orders, même induces a scalar but does not seem to induce an additive presupposition.

même with semantically incompatible alternatives

We now focus on cases in which même interacts with semantically incompatible alternatives, such as those that are derived from the order reported in (12), again taken from Ducrot's *Les échelles argumentatives*. Following Ducrot's analysis, we interpret such orders as giving rise to semantically incompatible propositions, since the property of being a little upset appears to entail the negation of not being upset at all; we also assume that such incompatible alternatives are ordered pragmatically. In Ducrot's words, "Or l'incompatibilité n'empêche nullement ici la similitude des valeurs argumentatives", [Ducrot, 1980, p. 24].³

- (12) $S_3 = \{p' [\text{peu inquiet}], p [\text{pas du tout inquiet}]\}$

Our first observation relates to the scalar presupposition. One might argue, in particular, that a scalar presupposition is generated also in this case. The evidence in favor of this analysis would come from the asymmetry in acceptability between (13) and (14). In the first sentence, même is modifying the higher proposition, and the sentence is therefore felicitous, especially in light of the meaning contribution in (13c). In the second sentence, même is instead modifying the lower proposition, and the sentence is therefore infelicitous, especially in light of the meaning contribution in (14c). Note, however, that the second sentence is a contradiction, so the sentence could be odd because it violates the scalar presupposition, or simply because it's a contradiction.

³ Ducrot's analysis, more precisely, is that peu inquiet gives rise to an entailment ("présuppose") that pas du tout inquiet is false. It should be noted that, on an alternative explanation, the scale of negative quantifiers induces an entailment pattern from few to none (cf. e.g. Horn 1989, Chierchia 2004). We leave this aspect open for future research.

- (13) Je suis peu inquiet, et même pas du tout. (Ducrot 1980, p. 24)
- Je ne suis pas du tout inquiet is true in *w*,
 - Je suis peu inquiet is true in *w*,
 - Je ne suis pas du tout inquiet is higher in S3 than Je suis peu inquiet.
- (14) # Je ne suis pas du tout inquiet, et même peu.
- Je suis peu inquiet is true in *w*,
 - Je ne suis pas du tout inquiet is true in *w*,
 - Je suis peu inquiet is higher in S3 than Je ne suis pas du tout inquiet.

Our second observation relates to the semantic incompatibility of the relevant propositions. The obvious point we want to make in this connection is that no additive presupposition can be satisfied. We believe that this is, somehow indirectly, demonstrated by the acceptability of (15) (which sounds however even more redundant this time). This sentence is again predicted to generate a contradiction, and then to produce a robust infelicity effect, on the standard account; in other words, the sentence is incorrectly predicted to sound infelicitous if the meaning contribution reported in (15b) is generated obligatorily.

- (15) Je ne suis même pas du tout inquiet, et non pas peu inquiet.
- Je ne suis pas du tout inquiet is true in *w*,
 - Je suis peu inquiet is true in *w*,
 - Je ne suis pas du tout inquiet is higher in S3 than Je suis peu inquiet.

Evidence from Italian: *même* as *addirittura*

We would like to submit a piece of evidence coming from Italian further illustrating, according to our understanding, that the additive presupposition is not inherently generated by *même*. Our observation derives from the recent Italian translation of Ducrot's *Les échelles argumentatives* (currently in press) and is based, in addition, on the widely accepted asymmetry, in terms of additivity, between It. *perfino*, which is a natural variant of Fr. *même*, as noted at the outset, and It. *addirittura* (cf. e.g. Atayan 2017 and references cited therein). Our discussion in the following can then be interpreted as extending Greenberg 2021's cross linguistic observation that many languages "have family of even-like particles", such as Span. *aun*, *incluso* and *hasta*, or Germ. *sogar*, *selbst* and *uberhaupt*, differing among various parameters, crucially including additivity.⁴

The observation is that, when interacting with incompatible orders, *même*, whose application in argumentation theory is taken to be a diagnostic for scalarity (cf. e.g. Ducrot 1980), is more felicitously translated in Italian with the non-additive and scalar *addirittura*. On the other hand, translation with the additive and scalar *perfino* is, according to our intuitions, less acceptable in such cases. We present the asymmetry, in terms of acceptability, between (17) and (18); the former appears to be felicitous, while its minimal variant, in which *addirittura* has been substituted with *perfino*, is odd (under the assumption that the oddness is not related to syntactic formation). Note that *addirittura*, it can be assumed, does not actually generate the presuppositional content reported in (17b), which accounts for the acceptability of the sentence. Thus, if *addirittura* correctly translates *même* in Italian, at least in certain occasions, this is evidence that *même* is not inherently additive.

- (16) $S_3' = \{p' \text{ [poco preoccupato]}, p \text{ [per niente preoccupato]}\}$

- (17) Sono poco preoccupato, non lo sono addirittura per niente. (Ducrot in press, p. 28.)
- Non sono per niente preoccupato is true in *w*,

⁴ It should be noted that, on an alternative explanation, the apparent non-additive component of *addirittura* could be recast in terms of propositional additivity. We leave this open for future research.

- b. Sono poco preoccupato is true in w ,
 - c. Non sono per niente preoccupato is higher in $S3'$ than Sono poco preoccupato.
- (18) # Sono poco preoccupato, non lo sono perfino per niente.
- a. Non sono per niente preoccupato is true in w ,
 - b. Sono poco preoccupato is true in w ,
 - c. Non sono per niente preoccupato is higher in $S3'$ than Sono poco preoccupato.

In addition, we would like to note that the oddness effect produced in the case of (19) reveals that *addirittura* might be infelicitous when applying on and modifying propositions containing lower items in the relevant scale, which could be interpreted as confirming that *addirittura* generates a scalar presupposition (the same as before, however, note that this sentence expresses a contradiction).

- (19) # Non sono per niente preoccupato, sono addirittura poco preoccupato.
- a. Sono poco preoccupato is true in w ,
 - b. Non sono per niente preoccupato is true in w ,
 - c. Sono poco preoccupato is higher in $S3'$ than Non sono per niente preoccupato.

We then conclude that, when interacting with incompatible alternatives, *même* might be associated with a scalar presupposition, but it is not necessarily associated with an additive presupposition.

Conclusion

In this contribution, we considered the behavior of the “scalar additive operators”, such as *Fr. même*, when interacting with various kinds of ordered alternatives (or “scales”). The standard account in the literature assumes that *même*’s meaning contribution includes a scalar presupposition, to the effect that the prejacent proposition p is higher on a relevant scale than alternative propositions, and an additive presupposition, to the effect that alternative propositions are also true in w . The meaning contribution that p is true in w is derived, according to the account, as an assertion.

We especially focused on cases in which *même* interacts with incompatible alternatives, i.e. propositions derived from the same scale that cannot be true in w at the same time. We considered pragmatically incompatible alternatives and semantically incompatible alternatives. We observed that the relevant sentences might be taken to be infelicitous when the scalar presupposition is not satisfied (though our evidence on this is by no means final), while they are felicitous when the additive presupposition is explicitly contradicted. Our conclusion was that the additive presupposition is actually not always needed, contrary to what the literature standardly assumes; our analysis also includes the observation that, when interacting with incompatible alternatives, *même* appears to be more felicitously translated with the scalar and non-additive operator *addirittura* in Italian, rather than with the scalar and additive operator *perfino*.

Another conclusion we seem entitled to draw from our discussion is the following: In the case of incompatible orders, propositions cannot be ordered based on entailment; therefore, the possible presence of the scalar presupposition in such cases can be interpreted as evidence that *même* is sensitive to a pragmatic (or “rhetorical”) ordering relation - possibly a further evidence for a pragmatically induced linguistic logic.

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