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## Believing without modes of presentation

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### How to cite

BONARDI, Paolo. Believing without modes of presentation. Doctoral Thesis, 2012. doi:  
10.13097/archive-ouverte/unige:34013

This publication URL: <https://archive-ouverte.unige.ch/unige:34013>

Publication DOI: [10.13097/archive-ouverte/unige:34013](https://doi.org/10.13097/archive-ouverte/unige:34013)

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Ph.D. Dissertation

**BELIEVING  
WITHOUT  
MODES OF PRESENTATION**

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## Abstract

In my dissertation I shall devise a number of new puzzles about belief reports that, unlike Frege's and Kripke's classical puzzles, cannot be solved by appealing to modes of presentation. A solution to both classical and new puzzles can instead be achieved by adopting a new Russellian account of belief reports which I shall present in this dissertation. The new account crucially involves two purely psychological (viz. non-semantic) devices, which will be proved not to be modes of presentation: *belief subsystems* and *cognitive coordination*. The former device originates in Donald Davidson's [2004] idea of explaining away cases of apparent irrationality of a subject by partitioning her mind into semi-autonomous compartments or subsystems, capable of *separately* storing contradictory pieces of information. The latter device takes its cue from Kit Fine's [2007] notion of coordination and deals with the ability (or inability) of a subject to recognize two occurrences of an object within the same or different Russellian propositions as occurrences of the *same* object and to "treat" them as such.

In connection with this main topic, this dissertation will also contain a critical discussion of some particularly sophisticated conceptions of modes of presentation such as pleonastic propositions (Stephen Schiffer), mental sentences (David Braun) and mental files or nodes (Jennifer Saul), and it will raise some original objections against Fine's conception of coordination and Nathan Salmon's [1989, 2006] account of second-order belief reports.

## Preface

I am deeply grateful to Kevin Mulligan, Marco Santambrogio, Jennifer Saul, Kit Fine and Stephen Schiffer for their comments and critical remarks, support and willingness to read drafts of this dissertation or papers preparatory to it.

This work was done during the years 2008-2012, which I spent first as a Visiting Student at New York University (supervised by K. Fine and S. Schiffer and supported by a fellowship “Chercheurs Debutants” of the Fonds National Suisse de la Recherche Scientifique), then as a Lecturer in informal logic at York College (The City University of New York) and Rowan University (New Jersey) and, finally, as a Visiting Scholar at Columbia University. The previous years of my Ph.D., at the Université of Genève (2003-2005) and at the University of Sheffield (2006-2007), was devoted to the writing of papers and the preparation of talks given in several conferences in Europe and USA. In Geneva, I was first involved in the Project IRIS (director K. Mulligan) and I was subsequently appointed as an Assistant Diplômé in philosophies of language and mind at the École Polytechnique Fédérale de Lausanne. At the University of Sheffield, I was a Visiting Student under the supervision of J. Saul and Tutor in philosophy of mind and applied ethics. My Genevan and Sheffield’s studies were partially funded by fellowships offered by the fondations Ernst et Lucie Schmidheiny (Geneva) and Cariparma (the latter sponsoring the project “Le Basi Linguistiche dei Processi Mentali” directed by M. Santambrogio). I would like to thank all aforementioned institutions and persons concerned for their support.

A special thanks, finally, to all people that in Geneva, Sheffield and New York made the intense years of my Ph.D. even more interesting and enjoyable.

# Introduction

The objects that linguistic expressions designate can be presented in different ways. For example, the Roman orator Marcus Tullius Cicero can be presented as ‘Cicero’, as ‘Tully’, as ‘the accuser of Catiline’, as ‘the author of *De Fato*’ and in many other ways indefinitely. This individual can also be presented visually or acoustically: *seeing* Cicero walking in the Roman Forum or *hearing* him making a speech in the Senate provide further modes of presentation of Cicero. From the obvious fact that objects – not just individuals but also events, properties, relations, states of affairs – can be presented in different linguistic or perceptual ways, many philosophers have concluded that there is something by means of (*via*) which or “under” which objects are presented. These representations of the objects are conceived by some philosophers as entities *interposed* between the subject and the objects, which make somehow indirect the epistemic/doxastic relationship of the subject to the external world. Other philosophers (e.g. Gareth Evans), however, have refused such a conception, preferring a view according to which subjects can be *acquainted* with (i.e. directly aware of the) external objects and they do this in multiple ways. I shall use the label *modes of presentation* to designate both the abovementioned intermediary entities and these ways of acquaintance.<sup>1</sup>

The notion of a mode of presentation plays important roles in the original and in a number of contemporary *Fregean accounts of meaning*. According to these accounts, modes of presentation form the semantic content of (i.e. the propositions expressed by) statements/sentences and serve to solve well-known puzzles such as the *empty-name puzzle* (i.e. accounting for the intuitive meaningfulness of a statement which contains an empty name), the *informativity puzzle* (i.e. accounting for the difference in informativity between pairs of statements like “Hesperus is Hesperus” and “Hesperus is Phosphorus” which represent the same state of affairs) and the *puzzles about attitude viz. belief reports* (Kripke’s ‘Cicero’/‘Tully’, ‘Londres’/‘London’ and ‘Paderewski’ puzzling cases and the like).

Modes of presentation play a more modest role in the (contemporary) *Russellian accounts of meaning*, where they do not contribute to the semantic content

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<sup>1</sup> About this twofold conception of modes of presentation, see Sean Crawford [2004a, pp. 173-174].

of statements (even though they may enter their truth-conditions). Within Russellianism, modes of presentation are used to solve the puzzles about belief and certain related problems. As regards, instead, the empty-name puzzle, Russellian philosophers have advanced solutions to it which do not appeal to modes of presentation,<sup>2</sup> while the informativity puzzle is generally treated as a puzzle about belief.<sup>3</sup>

Notwithstanding the remarkable differences between the Fregean and the Russellian account, a thesis seems therefore to be shared by both: modes of presentation are required in order to solve the puzzles about belief. My goal in this dissertation is to challenge this thesis, arguing that *to resort to modes of presentation is neither necessary nor sufficient for a solution to the puzzles about belief*. I shall show that it is not sufficient by devising a number of new puzzles which, unlike Kripke's classical puzzle, cannot be solved by appealing to modes of presentation. I shall show that it is not necessary by constructing a new Russellian account of belief reports aiming to solve both the classical and the new puzzles about belief without resorting to modes of presentation (but using thoroughly different devices).

In order to show that modes of presentation are neither required nor helpful, I must provide a general characterisation of them, one that all (or at least most) mode-of-presentation theorists of belief reports are ready to endorse. While in the philosophical literature there are many different proposals about what kind of things should play the role of modes of presentation (Mentalese sentences, mental files, pleonastic propositions, primary or secondary intentions, just to mention a few), general characterisations of the notion of a mode of presentation are rare and somehow inadequate. The only convincing one, in my opinion, has been propounded by Stephen Schiffer [1990]: a mode of presentation is whatever satisfies *Frege's Constraint*. This constraint states that: *a rational subject cannot simultaneously believe and disbelieve (i.e. believe-false), de re, (i) a to be F under the same mode of presentation, or (ii) under different modes of presentation which she realizes are modes of presentation of the same thing*.

In the light of this characterisation, it is rather easy to devise puzzles that cannot be solved using modes of presentation: either these are puzzles where, *contra* part (ii) of Frege's Constraint, a rational subject believes and disbelieves *a* to be *F* under different modes of presentation which she realizes are modes of presentation of the same thing; or they are puzzles where, *contra* part (i) of this constraint, a rational subject believes and disbelieves *a* to be *F* under the same mode of presentation.

Perhaps, potential falsifications of part (ii) of Frege's Constraint are not likely to be of much concern to mode-of-presentation theorists: at least in principle, part (ii) could be given up, so that modes of presentation would be redefined in terms of part (i) of Frege's Constraint only (i.e. *a mode of presentation would simply be something under which a rational subject cannot both believe and disbelieve a to be F*). On the contrary, the puzzles falsifying part (i) of Frege's Constraint pose a serious difficulty to the mode-of-presentation theorists. It will be shown that these more problematic puzzles fall into two main classes:

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<sup>2</sup> See e.g. Braun [2005].

<sup>3</sup> The problem of explaining the difference in informativity between statements like "Hesperus is Hesperus" and "Hesperus is Phosphorus" is reduced by Russellians to the problem of explaining how a rational subject can believe that "Hesperus is Hesperus" is true and that "Hesperus is Phosphorus" is false compatibly with their claim that these sentences have the *same* semantic content (viz. express the same Russellian proposition) in every linguistic context where they occur. See e.g. Braun [2002, pp. 66-67].

- (a) Puzzles in which a rational subject can believe and disbelieve  $a$  to be  $F$  under the same mode of presentation, because her contradictory beliefs, that  $a$  is  $F$  and that  $a$  is not  $F$ , are *separately* stored in her mind (viz. they are somehow disconnected, “disjoined”);
- (b) Puzzles in which a rational subject can believe and disbelieve  $a$  to be  $F$  under the same mode of presentation, as a result of her mistaking the individual  $a$  or the property of Being  $F$  for two (numerically distinct but) *indiscernible* things.

As an example of a puzzle of type (a), consider the case of Sam, a student who is late in his preparation for an exam in Modern European History. Because of this, he is obliged to read rapidly a number of books without having time to mentally reorganize the information he acquires. It happens, for some reason (say, because of a misprint in one of the sources or because of an error from a careless reading), that such material contains two contradictory items of information: the (true) item that Napoleon Bonaparte was defeated in the Battle of Leipzig; and the (false) item that Napoleon Bonaparte was not defeated in the Battle of Leipzig. Although the things involved in these items (Napoleon, the Battle of Leipzig, the relation of *Having been defeated in*) are “presented” in the *same ways*, the inconsistency escapes Sam, due to the very unfavourable conditions in which he prepares for his exam. As a result, Sam comes to rationally believe and disbelieve Napoleon to have been defeated in the Battle of Leipzig, without committing errors of identification of the things his contradictory beliefs are about.

As an example of a puzzle of type (b), consider the case of Susan who, by mistaking *one* individual, Bruce, for two distinct individuals, acquires the false belief that Bruce is not Bruce (i.e. that there are two distinct Bruces) holding at the same time the *a priori* true belief that Bruce is Bruce (i.e. that either of the two presumed Bruces is identical to himself). Additionally, suppose that the two presumed Bruces (who are actually just one) are imagined by Susan as located in the two hemispheres of a perfectly symmetric universe whose centre is occupied by Susan. By virtue of the perfect symmetry of this universe, the two Bruces will appear to Susan as undistinguishable, so that she will have the disposition to say of one Bruce the same exact things she is disposed to say of the other Bruce. Assuming that Susan does not even conceptualize the two hemispheres as ‘left’ and ‘right’ (since this would introduce an asymmetry in the universe), she will believe and disbelieve Bruce to be Bruce under the *same* mode of presentation.<sup>4</sup>

As it emerges in these examples, the puzzles of types (a) and (b) are sharply different and they consequently require independent solutions. I shall argue that they should be solved using two distinct psychological and non-semantic devices, which I shall call *belief subsystems* and *cognitive coordination*. It will be shown that both these devices are not modes of presentation, since they do not satisfy part (i) of Frege’s Constraint even in the classical puzzling cases about belief, where candidates for modes of presentation usually comply with this constraint.

The notion of belief subsystem originates in Donald Davidson’s [2004] intuition that cases of apparent irrationality of a subject who holds two contradictory beliefs can be explained away by conjecturing a compartmentalization of her mind

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<sup>4</sup> The ‘Bruce’ case originates with Kit Fine [2007, pp. 36-37].

into semi-autonomous structures (subsystems) which *separately* store these beliefs. I shall conceive the belief subsystems of a given subject, *S*, as sets of token beliefs having this crucial feature: *S's beliefs that p and that q are stored in different subsystems if from these beliefs S is not disposed to infer the belief that p&q.*

In order to give some idea of how belief subsystems solve the puzzles of type (a), reconsider the case of the student Sam who, because of the rapidity with which he is obliged to prepare for his exam, comes to rationally believe and disbelieve Napoleon to have been defeated in the Battle of Leipzig even without attaching different modes of presentation to the things these beliefs are about. Sam's being rational can be accounted for by the fact that his two contradictory beliefs are stored into *distinct* subsystems. This is evident in his unwillingness to infer from them the belief that Napoleon was defeated in the Battle of Leipzig and Napoleon was not defeated in the Battle of Leipzig: if *ab absurdo* Sam came to believe such a conjunction, since he commits no error in identifying Napoleon or Leipzig or the relation of *Having been defeated in*, he would inevitably notice the contradiction between his two beliefs and, being a rational person, he would instantaneously give up or suspend judgment on at least one of these beliefs.

The notion of cognitive coordination originates in Kit Fine's account of meaning, *semantic relationism*, where coordination is "the very strongest relation of synonymy or being semantically the same" [Fine 2007, p. 5] holding primarily among token expressions and derivatively among the objects to which these expressions correspond. In order to avoid some difficulties met, in my opinion, by semantic relationism, I shall, unlike Fine, conceive coordination as a non-semantic but psychological relation holding among occurrences of objects contained in Russellian propositions believed by a given subject, *S*. In particular, I shall say that two occurrences of an object are *positively coordinated* if and only if *S recognizes and treats them as occurrences of the same object. We treat* two occurrences of an object as occurrences of different objects when e.g. we assert "Clark Kent went into a phone booth and Superman came out": although we know that *Clark Kent is Superman*, we treat his two occurrences within the Russellian proposition expressed by this statement as occurrences of two different people, justified in doing so by the fact that Clark plays two quite different roles in his life.

Cognitive coordination allows the following solution to the 'Bruce' case: Susan, who mistakes Bruce for two indiscernible individuals, can rationally believe the illogical proposition (represented by the sequence) <Bruce, ≠, Bruce> because she *negatively* (i.e. non-positively) coordinates the two occurrences of Bruce within this proposition (she in fact fails to recognize them as occurrences of the same individual). As a consequence of this, Susan does not infer from her belief that Bruce is not Bruce the consequent belief that Bruce is different from himself, which, if held, would undoubtedly make her irrational.<sup>5</sup>

Interestingly, cognitive coordination can also be used to solve the classical puzzles about belief. For example, in the 'Cicero'/'Tully' case, Tom rationally believes <Cicero, Baldness> and <<Cicero, Baldness>, NEG><sup>6</sup> by coordinating negatively the two occurrences of Cicero in these propositions, viz. by taking them as occurrences of different individuals, *Cicero* and *Tully*. This hinders Tom from coming

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<sup>5</sup> Given the way in which Susan coordinates the occurrences of Bruce in the propositions <Bruce, =, Bruce> and <Bruce, ≠, Bruce>, she also fails to infer from her beliefs that Bruce is Bruce and that Bruce is not Bruce the trivially illogical belief that Bruce is and is not Bruce, coherently with her being rational.

<sup>6</sup> NEG is the property expressed by the negation connective.

to believe the proposition <Cicero, Being and not being bald>, so allowing him to preserve his rationality.

The following general constraint on rationality, subsystems and coordination will finally be upheld: a rational subject cannot believe from the *same* subsystem a pair of propositions of the form < $a$ , Being  $F$ > and << $a$ , Being  $F$ >, NEG> if she *positively* coordinates the two occurrences of  $a$  as well as the two occurrences of Being  $F$ ; she cannot also believe the conjunction of these two propositions under the abovementioned conditions or any proposition having the form < $a$ ,  $\neq$ ,  $a$ > or < $a$ , Being more/less  $F$  than,  $a$ > if the two occurrences of  $a$  in either proposition are positively coordinated.

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My dissertation will be organized into six chapters. *Chapter 1* will present the classical puzzles about belief (Kripke's puzzle and the like), provide a characterisation of the notion of a mode of presentation in terms of Frege's Constraint and show how modes of presentation so-conceived can be used to solve the classical puzzles about belief.

*Chapter 2* introduces a number of new puzzles about belief (the latecomer student case, the 'Bruce' case and many other puzzling cases) in which Frege's Constraint *intuitively* emerges as false. Hence these puzzles cannot intuitively be solved using modes of presentation defined using this constraint (or also certain variants of it which will be considered in Ch. 2).

In order to ascertain if sufficiently *sophisticated and artificial* conceptions of modes of presentation might possibly solve the new puzzles about belief coherently with Frege's Constraint (or with some plausible variant of it), in *Chapters 3 and 4* I shall examine what I reckon to be the most interesting and original accounts of belief reports involving modes of presentation: Schiffer's [2003] account with pleonastic, unstructured and fine-grained propositions, from the "Fregean" front; and, from the Russellian front, Salmon's [1986, 1989] account of belief reports involving modes of presentation (*guises*) conceived as *mental sentences* according to a suggestion of David Braun [1998] or as *mental files/nodes* by embracing a proposal of Jennifer Saul [2007] and Braun & Saul [2002]. I shall argue that none of these conceptions secures a solution to all new puzzles about belief (i.e. at least some of these puzzles will remain unsolved).

The last two chapters serve the positive goal of my dissertation, namely devising a new Russellian account of belief reports able to solve all puzzles about belief without resorting to modes of presentation. *Chapter 5* will discuss semantic relationism, the account of meaning proposed by Kit Fine, which renounces modes of presentation and enriches the Russellian content of sentences/statements and the truth-conditions of belief reports with coordination. Using coordination, Fine is able to solve most classical puzzles about belief and the new puzzles of type (b) (p. 3). However, some difficulties arise with the puzzles of type (a) and other puzzles. These difficulties will lead me, in the last chapter of my dissertation, to substantially modify Fine's proposed conception of coordination and give up his truth-conditions for belief reports.

*Chapter 6* will present my new account of belief reports. From a semantic point of view, it is a standard Russellian account, in that it assigns to belief reports the semantic content and truth-values that e.g. Nathan Salmon assigns to them. Important differences with Salmon will emerge, nevertheless, in the solution to the puzzles

about belief: the new account solves both the classical and the new puzzles without resorting to modes of presentation but by using belief subsystems and cognitive coordination.

Finally, the *Postscript* of this dissertation will discuss the relationship between modes of presentation and *networks*, a further device which I shall introduce in the new account illustrated in Ch. 6 in order to solve certain problems, independent of the puzzles about belief, affecting this account.

# Chapter 1

## Classical Puzzles about Belief and Modes of Presentation

A variety of puzzles notoriously affects belief reports. For some time, it was thought that these puzzles essentially involved the *substitution* of *singular terms*, in particular proper names. It has since been shown, nevertheless, that this is false: puzzles about belief (reports) also arise in connection with the substitution of expressions that are not singular terms or even with no substitution at all.

In this chapter, I shall present the classical puzzles about belief organizing them around two key notions: *rationality*; and *contradiction* both *intra* and *inter* belief reports. More precisely, I shall distinguish among the following classes of puzzles:

Puzzles of inconsistency, in which someone simultaneously appears to believe that  $p$  and believe that  $\sim p$ , even though she is intuitively rational;

Puzzles of impossibility, in which someone appears to believe something impossible such as that  $p \& \sim p$ , or that  $a \neq a$ , or that  $a$  is more/less  $F$  than  $a$ , even though she is intuitively rational;

Puzzles of contradiction, in which someone simultaneously appears to believe that  $p$  and not believe that  $p$ .

After presenting the classical puzzles of inconsistency, impossibility and contradiction, I shall explain how these puzzles can be solved using the notion of a mode of presentation. A general definition of the notion, originating with Stephen Schiffer [1990] and such that

all (or at least most) mode-of-presentation theorists of belief reports should be ready to endorse, will be introduced and taken for granted.

## 1. Puzzles of inconsistency

Without making any particular claim to historical accuracy, let us start our investigation with a puzzle of inconsistency attributable to Frege involving *definite descriptions*: ‘the author of *De Fato*’/‘the accuser of Catiline’ case. Tom is an intuitively rational subject who has the disposition to assert sincerely, on reflection and competently “The author of *De Fato* is bald” and “The accuser of Catiline is not bald”, and he fails to realize that the author of *De Fato* is the accuser of Catiline. From these verbal dispositions of Tom, it seems correct to infer (1) and (2). Using the principle of substitution *salva veritate*, reported below and labelled *Substitution*, we move from (2) to (3). But the truth of (1) and (3) shows that Tom has two inconsistent (contradictory) beliefs, in contrast with the initial supposition that he is rational.

- (1) Tom believes that the author of *De Fato* is bald.
- (2) Tom believes that the accuser of Catiline is not bald.
- (3) Tom believes that the author of *De Fato* is not bald.

Substitution: The truth-value of (any substituent for) sentence ‘*p*’ does not change if a singular term ‘*T*’, occupying a given position in ‘*p*’, is replaced with another singular term which, in that position, has the same referent as ‘*T*’.

The kind of puzzles exemplified by ‘the author of *De Fato*’/‘the accuser of Catiline’ case can also be raised with *proper names* instead of definite descriptions. For example, in the ‘*Cicero*’/‘*Tully*’ case, the reports (4) and (5) are both true, Tom failing to realize that ‘*Cicero*’ and ‘*Tully*’ are co-referential names. Substitution authorizes the move from (5) to (6), with the result that Tom has two contradictory beliefs. But this seems incompatible with his being intuitively rational.

- (4) Tom believes that Cicero is bald.
- (5) Tom believes that Tully is not bald.
- (6) Tom believes that Cicero is not bald.

*Russell’s solution*:

Russell [1905, 1938, 1988a] famously suggested analyses of descriptions as incomplete symbols and of (ordinary) proper names as disguised definite descriptions. Using these analyses, ‘the author of *De Fato*’/‘the accuser of Catiline’ case and the ‘*Cicero*’/‘*Tully*’ case can respectively be solved by disallowing the moves from (2) to (3) and from (5) to (6) without renouncing Substitution: this principle (which, by definition, only applies to

singular *terms*) is inapplicable to descriptions and names conceived as *incomplete symbols*.<sup>1</sup>

*Objection to Russell:*

If on one hand Russell's strategy seems to succeed in solving the puzzles of inconsistency with proper names and definite descriptions, on the other hand it is ineffective as a solution to puzzles involving expressions, e.g. *predicates*, which cannot be analyzed as incomplete symbols. Consider for instance the '*bald*'/'*shmal*' case, whose protagonist is Tom, a competent speaker of a language that, besides English words, contains the predicate '*shmal*'. Not realizing that the property of Shmalness (denoted or expressed by this predicate)<sup>2</sup> is nothing but the property of Baldness, Tom comes to believe what reported in (4) and (7). Using *Generalized Substitution*, we infer (6) from (7). Thus Tom believes and *disbelieves* (i.e. believes the negation of) the same thing, i.e. that Cicero is bald, *contra* his being intuitively rational.<sup>3</sup>

Since the predicates 'is bald' and 'is shmal' cannot be analyzed as incomplete symbols, Russell's proposal cannot be used in the '*bald*'/'*shmal*' case to disallow the move from (7) to (6) in such a way as to safeguard Generalized Substitution.

- (4) Tom believes that Cicero is bald.
- (7) Tom believes that Cicero is not shmal.
- (6) Tom believes that Cicero is not bald.

Generalized Substitution: The truth-value of a sentence '*p*' does not change if an expression '*E*', occupying a given position in '*p*', is replaced with another expression having the same *semantic value* (viz. content or denotation) as '*E*'.<sup>4</sup>

*Rejecting the principles of substitution:*

One could have the inclination, at this point, to solve the puzzles of inconsistency by drastically rejecting Substitution and Generalized Substitution. If so, the block of the moves from (2) to (3), from (5) to (6) and from (7) to (6) will simply show that these principles *fail* when applied within belief reports.<sup>5</sup>

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<sup>1</sup> Unlike Russell, contemporary Russellians think that definite descriptions are terms. They are however able to make Substitution inapplicable to the move from (2) to (3), on the grounds that definite descriptions are not *singular terms* while Substitution only applies to this kind of terms. (This point will be better illustrated in Ch. 4, p. 96.)

<sup>2</sup> For some philosophers (e.g. Frege) predicates *denote*, while for others (e.g. the Russellians) they just *express*. The label 'semantic value' above stands for either Fregean denotation or Russellian content.

<sup>3</sup> This case takes its cue from Schiffer's [1992, p. 502] 'dog'/'shmog' case.

<sup>4</sup> The difference between Substitution and Generalized Substitution rests on the fact that the former principle applies to co-referential singular terms, whereas the latter applies to expressions of any kind (singular terms, predicates, sentences, etc.) which have the same semantic value (viz. denote or express the same thing).

<sup>5</sup> Notice the difference between Russell's previously illustrated strategy and the one presented now: according to the latter, Substitution *fails* when applied within belief reports whereas, according to the former, Substitution is *inapplicable* to descriptions and ordinary names (within belief sentences as well as simple sentences) but it does not fail.

*Objections:*

This proposal is costly: Substitution is an important principle of logic and Generalized Substitution follows from *Compositionality*<sup>6</sup> so that if Generalized Substitution is rejected, Compositionality will be rejected as well.

Compositionality: The semantic value of a complex expression is a function of the semantic values of its parts and its mode of composition.

Even more important is the fact that the rejection of Substitution and Generalized Substitution does not suffice to solve another puzzle of inconsistency which originates in *neither of these principles*: Kripke's 'Londres'/'London' case. The protagonist of this case is Pierre, a French speaker who has the disposition to assert sincerely "Londres est jolie". After having moved to an ugly neighbourhood of London and having learned the name 'London' ostensively (together with other English words), Pierre acquires the disposition to assert sincerely "London is not pretty", not realizing that *Londres* is *London*. Given his verbal dispositions, we can correctly attribute to Pierre the beliefs reported in (8) and (9). Using the principle of *Translation* (see below), we move from (8) to (10). But (9) and (10) entail that Pierre believes and disbelieves the same thing, in contrast with his intuitive rationality.

- (8) Pierre croit que Londres est jolie.
- (9) Pierre believes that London is not pretty.
- (10) Pierre believes that London is pretty.

Translation: "If a sentence of one language expresses a truth in that language, then any translation of it into any other language also expresses a truth (in that other language)." [Kripke 1988, p. 114]

*Rejecting both principles of substitution and Translation:*

As a solution to the puzzles of inconsistency, one might suggest the rejection of the principle of Translation, besides Substitution and Generalized Substitution. Coherently with this proposal, the 'Londres'/'London' case will be solved by blocking the move from (8) to (10).

*Objection:*

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<sup>6</sup> Here is the proof that Generalized Substitution follows from Compositionality. First of all, *Compositionality entails the principle of substitution salva significatione*, the latter principle stating that: the semantic value of a sentence '*p*' does not change if an expression '*E*', occupying a given position in '*p*', is replaced with another expression having the same semantic value as '*E*'. If we take for granted the thesis that two sentences having the same semantic value also have the same truth-value, then, trivially, *the principle of substitution salva significatione entails Generalized Substitution*. By transitivity, *Compositionality entails Generalized Substitution* QED.

Apart from the inopportunity of rejecting a highly plausible principle like Translation, this strategy does not help for a solution to another well-known case proposed by Kripke, the ‘Paderewski’ case. In this case, which originates *neither in the principles of substitution nor in Translation*, Peter rationally believes that Paderewski, a pianist, has musical talent and believes that Paderewski, a politician, has no musical talent, not realizing that the pianist and the politician are actually the same person.

So, none of the principles mentioned so far *essentially* underpins the puzzles of inconsistency. Hence none of them is the real responsible for generating the puzzles. But then what principle has such a responsibility? The following analysis of the ‘Paderewski’ case, in four steps preceded by as many assumptions, may help to answer this question.

- (a) Peter is rational. [Assumption]
- (b) Peter mistakes Paderewski for two distinct people, a pianist and a politician. [Assumption]
- (c) Thinking of Paderewski as a pianist, Peter has the disposition to assert sincerely, on reflection and competently “Paderewski has musical talent”. [Assumption]
- (d) Thinking of Paderewski as a politician, Peter has the disposition to assert sincerely, on reflection and competently “Paderewski has no musical talent”. [Assumption]
- (e) Peter believes that Paderewski has musical talent. [From (c)]
- (f) Peter believes that Paderewski has no musical talent. [From (d)]
- (g) Peter believes that Paderewski has musical talent and Peter believes that Paderewski has no musical talent. [From (e) and (f)]
- (h) Peter is not rational. [From (g)]

This analysis reveals that the ‘Paderewski’ case rests on three principles: *Positive Disquotation*, which is indispensable to move from (c) to (e) and from (d) to (f); *Conjunction*, which allows moving from (e) and (f) to (g); and *Rationality*, which permits the move from (g) to (h).

Positive Disquotation: If a subject *S* has the disposition to sincerely, on reflection and competently assert or accept or assent to ‘*p*’, where the substituends for ‘*p*’ are sentences lacking indexical or pronominal devices or ambiguities, then *S* believes that *p*.

Conjunction: A conjunction is true if and only if its conjuncts are both true.

Rationality: If a subject simultaneously believes that *p* and believes that  $\sim p$ , then she is irrational.

Since it could be shown that these principles underpin not only the ‘Paderewski’ case but all puzzles of inconsistency examined so far, three strategies are available to solve all of them: rejecting (or making inapplicable to belief reports) Positive Disquotation or

Conjunction or Rationality. In what follows, I shall separately examine these three strategies finally determining which, in my opinion, is the best.

*Rejecting Positive Disquotation:*

Some authors – e.g. Robert Fogelin [1993] and Marco Santambrogio [2002] – propose solving the ‘Paderewski’ case by disallowing the move from (c) to (e) or from (d) to (f) (p. 11), consequently giving up Positive Disquotation.

On the other hand, once Positive Disquotation is rejected, what truth-value will be assigned to reports (e) and (f) and on the basis of what new principle/rule (replacing Positive Disquotation)?

(e) Peter believes that Paderewski has musical talent.

(f) Peter believes that Paderewski has no musical talent.

A *prima facie* convincing proposal, call it “*Symmetry*” *Proposal* (which does not completely abandon Positive Disquotation but rather confines its correct application to some particular cases) states that reports (e) and (f) are *neither true nor false*.

“Symmetry” Proposal: Consider a subject, *S*, who has the disposition to assert sincerely, on reflection and competently two sentences, ‘*p*’ and ‘*q*’, expressing contradictory propositions, *p* and  $\sim p$ . Unless some (pertinent) “asymmetry” between *S*’s dispositions to assert ‘*p*’ and ‘*q*’ is involved and justifies the assignment of different truth-values to the reports ‘*S* believes that *p*’ and ‘*S* believes that *q*’, we must suspend judgment on the truth-value of these reports, i.e. we must take both as neither true nor false.<sup>7</sup>

*Objections:*

Every proposal which rejects Positive Disquotation clashes with Kripke’s [1988] and Salmon’s ascertainment that to have the disposition to assert sincerely, on reflection and competently ‘*p*’ *analytically* presupposes to believe that *p*. In this connection, Salmon [1986, pp. 129-130] writes:

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<sup>7</sup> This proposal takes its cue from Santambrogio [2002]. I shall implicitly assume that no “asymmetry” is involved in the ‘Paderewski’ case. Instead, as an example of a case involving an “asymmetry”, consider the case of Ralph, a person who well knows that *Mount Everest* is the highest mountain in the world while he has never heard of *Gaurisanker*, which is actually the same mountain as Everest. On being questioned, for some reason, Ralph (sincerely, competently and on reflection) provides a negative answer to the question “Is Gaurisanker the highest mountain in the world?”. So, we may say, Ralph has the disposition to assert sincerely, on reflection and competently “Mount Everest is the highest mountain in the world” and to deny under the same conditions “Gaurisanker is the highest mountain in the world”, using the name ‘Everest’ *vividly* and the name ‘Gaurisanker’ *non-vividly*. This “asymmetry” between Ralph’s uses of ‘Everest’ and ‘Gaurisanker’ might justify the attribution to Ralph of the belief that Everest is the highest mountain in the world, but not of the belief that Gaurisanker is not the highest mountain in the world. Incidentally, the notion of vivid name originates with David Kaplan [1969].

[...] at least some version of this disquotation principle is unobjectionable; it is no solution to Kripke's puzzle to reject this principle. Kripke [1988, p. 249] remarks that, "taken in its obvious intent, after all, the principle appears to be a self-evident truth". What makes the principle self-evident is that it is corollary of the traditional conception of belief as inward assent to a proposition. Sincere, reflective, outward assent (qua speech act) to a fully understood sentence is an overt manifestation of sincere, reflective, inward assent (qua cognitive disposition or attitude) to a fully grasped proposition.

Furthermore, the "Symmetry" Proposal meets two difficulties. *First difficulty*: suppose that Peter acquires at time  $t_1$  the disposition to assert "Paderewski has musical talent" without simultaneously having the disposition to assert *any* sentence representing the state of affairs Paderewski's having no musical talent. Then, at a later time  $t_2$ , Peter acquires the disposition to assert "Paderewski has no musical talent", holding at the same time his disposition towards "Paderewski has musical talent" (Peter in fact mistakes Paderewski for two different people). According to the "Symmetry" Proposal, report (e) is true during the temporal interval included between  $t_1$  and  $t_2$ , while it suddenly becomes untrue (viz. neither true nor false) after  $t_2$ . But how can this change in the truth-value of (e) be *intuitively* justified? Nothing occurred in Peter's mind after  $t_2$  justifies such a change. Neither is Peter aware of it: after  $t_2$  he continues claiming that he believes that Paderewski has musical talent.<sup>8</sup>

(e) Peter believes that Paderewski has musical talent.

*Second difficulty*: we have seen that, according to the "Symmetry" Proposal, Peter's sincere, on reflection and competent assertion of "Paderewski has musical talent" does not suffice to attribute to Peter the belief that Paderewski has musical talent. Hence not this belief but another of Peter's mental states will be responsible for prompting him to assert "Paderewski has musical talent". Call  $\varphi$  such a mental state. A new puzzle of inconsistency can actually be raised about  $\varphi$ : Peter sincerely asserts "Paderewski has musical talent" and "Paderewski has no musical talent"; thus he  $\varphi$ s that Paderewski has musical talent and he  $\varphi$ s that Paderewski has no musical talent; but how can he do so rationally?<sup>9</sup> Notice that this puzzle cannot be solved by "extending" to the mental state  $\varphi$

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<sup>8</sup> The same point drawn here about the 'Paderewski' case is actually made by Kripke [1988, p. 121] as regards the 'Londres'/'London' case: "Pierre [...] believed that London is pretty when he was monolingual [and lived in France]. Should we say that Pierre, now that he lives in London and speaks English, no longer believes that London is pretty? Well, unquestionably Pierre *once* believed that London is pretty. So we would be forced to say that Pierre has *changed his mind, has given up his previous belief*. But has he really done so? Pierre is very set in his ways. He reiterates, with vigour, every assertion he has ever made in French. He says he has not changed his mind about anything, has *not* given up any belief. Can we say he is wrong about this? If we did not have the story of his living in London and his English utterances, on the basis of his normal command of French we would be *forced* to conclude that he *still* believes that London is pretty. And it does seem that this is correct. Pierre has neither changed his mind nor given up any belief he had in France".

<sup>9</sup> Since the mental state  $\varphi$  is a close cognate of belief and assertion, it seems to me plausible to suppose that this state, exactly as its cognates, is subject to some principle of rationality, stating that: a rational subject cannot simultaneously  $\varphi$  that  $p$  and that  $\sim p$ .

the “Symmetry” Proposal, consequently taking the reports ‘Peter  $\varphi$ s that Paderewski has musical talent’ and ‘Peter  $\varphi$ s that Paderewski has no musical talent’ as neither true nor false: otherwise it would be *untrue* (viz. neither true nor false) that Peter  $\varphi$ s that Paderewski has musical talent, to the effect that even  $\varphi$  would not be the mental state responsible for prompting Peter to assert “Paderewski has musical talent”, *contra* our initial assumption.

Summing up, we have seen that the “Symmetry” Proposal – and, more in general, the strategy of rejecting Positive Disquotation – clashes with Salmon’s ascertainment that this principle is analytic; in addition, it encounters the two examined difficulties. I would also like to point out that such a proposal leaves unsolved the following *puzzle about assertion*, put forward by Salmon [1986, p. 131].

- (k) Peter is rational. [Assumption]
- (l) Peter mistakes Paderewski for two distinct people, a pianist and a politician. [Assumption]
- (m) Peter has the disposition to assert sincerely, on reflection and competently “Paderewski has musical talent”. [Assumption]
- (n) Peter has the disposition to assert (under the same conditions as above) “Paderewski has no musical talent”. [Assumption]
- (o) Peter has the disposition to assert (under the same conditions as above) that Paderewski has musical talent. [From (m)]
- (p) Peter has the disposition to assert (under the same conditions as above) that Paderewski has no musical talent. [From (n)]
- (q) Peter has the disposition to assert (under the same conditions as above) both that Paderewski has musical talent and that Paderewski has no musical talent. [From (o) and (p)]
- (r) Peter is irrational. [From (q)]

This puzzle (which belongs to the family of the puzzles of inconsistency widened to assertion) is “generated by means of a [...] obviously unobjectionable disquotation principle concerning assertion in lieu of belief” [Salmon 1986, p. 130], by Conjunction (p. 11) and by a cognate of Rationality concerning assertion in lieu of belief:<sup>10</sup> the first of these three principles is indispensable to move from (m) and (n) to respectively (o) and (p); the second serves for the move from (o) and (p) to (q); and the third allows moving from (q) to (r).

An advocate of the “Symmetry” Proposal can hardly solve this puzzle by extending such a proposal to assertion, consequently giving up the principle of disquotation concerning assertion: whereas there might be some *prima facie* plausible reason to reject Positive Disquotation, it is difficult to find out *any* reason to renounce its cognate concerning assertion. The latter principle seems in fact even stronger than the former.<sup>11</sup>

<sup>10</sup> The cognate of Positive Disquotation involved here states that: if a subject *S* has the disposition to assert sincerely, on reflection and competently sentence ‘*p*’, then she has the disposition to assert under the same conditions that *p*. The cognate of Rationality states that: if a subject simultaneously has the disposition to assert sincerely, on reflection and competently that *p* and that  $\sim p$ , then she is irrational.

<sup>11</sup> Further reasons for not rejecting Positive Disquotation can be found in David Sosa [1996].

### *Rejecting Conjunction:*

Alternatively, another of the principles/rules underpinning the ‘Paderewski’ cases about belief and assertion could be rejected in order to solve the puzzles of inconsistency: Conjunction. Such rejection, on the other hand, is a costly move, given the importance of this logic rule.

### *Rejecting Rationality:*

A rejection of Rationality and its cognate, which is proposed by most contemporary Russellian philosophers e.g. Salmon [1986], seems to me *the most appealing strategy to solve the puzzles of inconsistency*. This strategy, on the other hand, must be accompanied by some explanation of how a subject can rationally believe and disbelieve, or assert and deny, the same thing.

### *The mode-of-presentation solution to the puzzles of inconsistency:*

We have examined so far a number of puzzles of inconsistency along with (more or less convincing) strategies to solve them. Let us now see how these puzzles could be solved using *modes of presentation*, i.e. the kind of things also called ‘senses’, ‘guises’, ‘ways of thinking’, ‘ways of taking’, ‘ways of believing’, ‘vehicles’, by means of (*via*) which or “under” which objects – viz. individuals, events, states of affairs, properties, relations, propositions – are presented. Whereas the strategies embraced (i.e. the principles rejected) by mode-of-presentation theorists in order to solve the puzzles of inconsistency differ, a basic idea seems to be shared by them: a rational subject cannot believe and disbelieve *a* to be *F* unless she does so under different modes of presentation which she fails to realize are modes of presentation of the same thing.<sup>12</sup>

Starting from this idea, the following solution to the ‘Paderewski’ case about belief (p. 11) can be derived: Peter can rationally believe and disbelieve Paderewski to have musical talent, because he does so under different modes of presentation of Paderewski’s having musical talent, somehow corresponding to the sentences “The pianist Paderewski has musical talent” and “The politician Paderewski has musical talent” respectively, which Peter fails to realize are modes of presentation of the same thing.

It is harder but not wholly implausible to maintain that the ‘Paderewski’ case about assertion (p. 14) can also be solved using modes of presentation.<sup>13</sup> In this case, Peter has the disposition to assert that Paderewski has musical talent thinking of Paderewski as a pianist and to deny the same thing thinking of Paderewski as a politician. What accounts for Peter’s intuitive rationality is his thinking of Paderewski under different modes of presentation, somehow corresponding to the phrases ‘the pianist

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<sup>12</sup> Stephen Schiffer [1990] argues that all propositionalist accounts of belief reports involving modes of presentation share this basic idea. In Chapters 3 and 4, we will see how very different accounts of belief reports such as Frege’s and Salmon’s embody this idea.

<sup>13</sup> The problem in this case is that the notion of *asserting something under a mode of presentation* sounds awkward.

Paderewski’ and ‘the politician Paderewski’, which Peter takes to be modes of presentation of different people.

All puzzles of inconsistency examined in this section can be solved along these lines. A basic question, on the other hand, arises at this point: what are exactly modes of presentation?

## 2. Modes of presentation

There is a strong disagreement among philosophers regarding what kind of things modes of presentation could be: Mentalese expressions, mental files, characters, secondary intentions, diagonal propositions are only some of the candidates proposed for the role of a mode of presentation. It is not my objective here to find out what, among these things, is the best candidate for such a role – all the more so since all of them meet difficulties and, according to Stephen Schiffer [1990], there is no plausible candidate for the role in question. On the contrary, I would like to devise here a *general* characterisation of the notion of a mode of presentation, one that all (or at least most) mode-of-presentation theorists of belief reports are available to endorse.

In order to devise such a characterisation, we might start from an intuitive claim made at the end of the last section: I said that Peter believes Paderewski to have musical talent under a mode of presentation of Peter’s having musical talent and I also said that such a mode of presentation somehow *corresponds to the sentence “The pianist Paderewski has musical talent”*. The generalization of this claim yields the following characterisation of the notion of a mode of presentation:

(Attempted) Characterisation 1: A mode of presentation is something *like a linguistic expression*.<sup>14</sup>

This characterization is actually disputable in a number of ways.

*First objection:*

Characterisation 1 is vague: it does not say what a mode of presentation is. It just says that it is something *like* an expression.

*Second objection:*

Characterisation 1 does not provide clear conditions to identify a mode of presentation. Consider the mode of presentation *m* under which a given subject *S* believes *a* to be *F*. What sentence (or class of sentences) identifies *m*?

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<sup>14</sup> Jennifer Saul [2007, p. 11] attributes to Salmon [1986] the view that modes of presentation (guises) of Russellian propositions are things like sentences. Although, as we will see shortly, this characterisation of modes of presentation in terms of the “corresponding” expressions is inadequate, there seems to be agreement, among Russellians and Fregeans as well, on the existence of some important link between (at least a class of) modes of presentation and linguistic expressions.

The following proposal, which takes its cue from Eros Corazza [2004, p. 325], somehow answers this question: *m* is identified by *the set of sentences, representing the state of affairs of a's being F, which the subject S has the disposition to assert sincerely, on reflection and competently, along with the translations of these sentences in every (real or possible) language.* If so e.g. in the ‘Cicero’/‘Tully’ case, Tom, who has the disposition to assert sincerely “Cicero is bald”, will believe Cicero to be bald under the mode of presentation identified by the set of sentences including “Cicero is bald”, “Cicéron est chauve”, “Cicerone è calvo”, etc.

This proposal actually suffers from a number of difficulties. First, it does not allow us to identify the modes of presentation under which *non-language-using* subjects believe things. Second, it is intuitively false that a sentence and its translations *always* identify the same mode of presentation: in the ‘Londres’/‘London’ case, the French sentences “Londres est jolie” and its English translation “London is pretty” identify *different* modes of presentation (under which Pierre respectively believes and disbelieves London to be pretty), while it is not even clear what mode of presentation is identified by a translation of these sentences in a third language (does e.g. their Italian translation “Londra è bella” identify the mode of presentation under which Pierre believes London to be pretty or the mode of presentation under which Pierre so disbelieves or what else?). Third, in the ‘Paderewski’ case, the sentence “Paderewski has musical talent”, sincerely asserted by Peter, does not suffice to *fully* identify the mode of presentation under which he believes Paderewski to have musical talent (something richer, like the sentence “*The pianist* Paderewski has musical talent”, is required). Finally, what mode of presentation does a *demonstrative* or a *pure indexical* identify? This problem introduces us to the third and fourth objections to Characterisation 1.

*Third objection:*

Modes of presentation conceived as in Characterisation 1 cannot solve puzzles of inconsistency involving the use of indexicals. Consider, for instance, the following puzzle originating with John Perry [1993b, pp. 12-13]:

Suppose I am viewing the harbor from downtown Oakland; the bow and the stern of the aircraft carrier *Enterprise* are visible, though its middle is obscured by a large building. The name ‘Enterprise’ is clearly visible on the bow, so when I tell a visitor, “[That] is the *Enterprise*”, pointing towards the bow, this is readily accepted. When I say, pointing to the stern clearly several city blocks from the bow, “That is the *Enterprise*”, however, she refuses to believe me.

It seems correct to maintain that, in this case, the visitor to Oakland believes and disbelieves the *Enterprise* to be the *Enterprise*. According to mode-of-presentation theorists, she will do so under *different* modes of presentation,  $m_1$  and  $m_2$ . But if modes of presentation are things like linguistic expressions, how can  $m_1$  and  $m_2$  differ, taking into account that the visitor to Oakland accepts and refuses the *very same* sentence, “That is the *Enterprise*”?

In order to bypass this obstacle, one may come up with different descriptions aiming to “capture” the modes of presentation corresponding to the token demonstratives

contained in the two utterances of “That is the Enterprise”. Then, the modes of presentation identified by these descriptions would enter  $m_1$  and  $m_2$ , making them different.

This manoeuvre of “replacing” indexicals with descriptions clashes, nevertheless, with the so-called *Irreducibility Thesis* of indexicals and quasi-indicators, defended with a variety of compelling arguments by Perry [1993], Kaplan [1989], Hector Castaneda [1966, 1967] and other philosophers.

Irreducibility Thesis: An indexical or a quasi-indicator cannot be explained away or replaced by a coreferring term without destroying the cognitive impact its use conveys.<sup>15</sup>

*A second attempted characterisation of modes of presentation:*

In response to the third objection, one could point out that the visitor to Oakland first accepts and then refuses the sentence “That is the Enterprise” while *looking at* the Enterprise twice. The view of the Enterprise causes, in the two different occasions, two *distinct images* of the boat in the mind of the visitor. Now, those images, or rather something corresponding to them, could be the desired modes of presentation,  $m_1$  and  $m_2$ , which allow a solution in terms of modes of presentation to the Enterprise case.<sup>16</sup>

In light of these considerations, Characterisation 1 could be improved as follows:

(Attempted) Characterisation 2: A mode of presentation is something like a linguistic expression or a *perceptual item*.

*Fourth objection:*

Characterisation 2 is subject, exactly as Characterisation 1, to the first and second objections (pp. 16-17). In addition, it does not allow a solution in terms of modes of presentation to another puzzling case originating with Perry [1993b, pp. 21-22], which involves the use of a quasi-indicator. The protagonist of this case is Rudolf Lingens, an amnesiac who has forgotten nearly everything about himself including his name and is lost in the Main Library at Stanford. There he has the opportunity to read a biography of a man called ‘Rudolf Lingens’. Failing to realize that he himself is that man, Lingens comes to believe that he himself is lost in a library and to disbelieve that Lingens is lost in a library. Under what mode of presentation does Lingens believe him(self) to be lost in a library, if modes of presentation are things like linguistic expressions or perceptual items?

The sentence

(11) I am lost in a library,

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<sup>15</sup> This formulation of the Irreducibility Thesis is from Corazza [2004, pp. 277-278].

<sup>16</sup> Several authors, e.g. Gareth Evans [1982], have emphasized the existence of a link between the competent use/hearing of a demonstrative and perception. For an analytical study of this view and its historical origins in Husserl, *Logical Investigations*, see Kevin Mulligan [1986, 1997, 2010].

which Lingens has the disposition to assert, cannot be exploited to identify the desired mode of presentation: other people, besides Lingens, may have such a disposition towards the very *same* sentence (11), even though the modes of presentation under which they will believe them(selves) to be lost in a library will very likely differ from the one under which Lingens believes so. The mode of presentation we are looking for cannot even be obtained through a replacement in (11) of the pronoun ‘I’ with another linguistic expression: such a replacement, according to the Irreducibility Thesis, would destroy the “cognitive impact” conveyed by Lingens’ use of ‘I’.

One might then hope to determine the desired mode of presentation by appealing to perception. If *proprioceptive items* are included in the extension of the word ‘perceptual item’, Characterisation 2 can be exploited to devise a solution to the Lingens case in terms of modes of presentation: Lingens’ proprioception allows an identification of the mode of presentation “corresponding” to his use of ‘I’.<sup>17</sup> On the other hand, such a strategy of widening the extension of the word ‘perceptual item’ does not suffice to solve other puzzles involving pure indexicals, for example the following. Suppose that Michael believes that the workshop will start tomorrow and he also believes that the (same) workshop will not start on December 28, 2011, failing to realize that tomorrow is December 28, 2011. What “perceptual” mode of presentation might correspond to Michael’s possible use of the indexical ‘tomorrow’? (In order to fend off possible replies to this case, we might suppose that Michael sadly deceases on the night of December 27, 2011, with the result that he will have no chance to entertain any perceptual contact with the events of the subsequent day.)

*A third characterisation of modes of presentation:*

Perhaps, the objections put forward against Characterisations 1 and 2 are not conclusive. Nonetheless, I think they throw serious doubts on the strategy of devising a general and convincing characterisation of the notion of a mode of presentation starting from the intuition that modes of presentation somehow correspond to linguistic or perceptual items. It seems therefore opportune to take some alternative route in order to arrive at the desired characterisation. One promising route exploits a crucial role that, according to Schiffer, all propositionalists attribute to modes of presentation: the satisfaction of the so-called *Frege’s Constraint*.

Frege’s Constraint has two parts. First it says that a rational person  $x$  may both believe and disbelieve that a certain thing or property  $y$  is such and such only if there are distinct modes of presentation  $m$  and  $m'$  such that  $x$  believes  $y$  to be such and such under  $m$  and disbelieves it to be such and such under  $m'$ . Then it says that there are distinct modes of presentation  $m$  and  $m'$  such that rational person  $x$  believes  $y$  to be such and such under  $m$  and disbelieves  $y$  to be such and such under  $m'$  only if  $x$  fails to realize that  $m$  and  $m'$  are modes of presentation of one

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<sup>17</sup> *Contra* the standard view – held by Kaplan [1989], Evans [1982], Corazza [1995, 2004] and many others – according to which perception plays no role in fixing the referent of a *pure* indexical, Mulligan [1997] has defended an original and stimulating view (which stems from Husserl, *Logical Investigations*, and the Austro-German tradition) stating that perception, one way or another, fixes the referent of every kind of singular terms referring to some non-abstract object.

and the same thing. In other words, you can't rationally believe and disbelieve something under one and the same mode of presentation, or under modes of presentation which you realize are modes of presentation of the same thing. The notion of a mode of presentation is thus functionally defined: something is a mode of presentation if it plays the role defined by Frege's Constraint, and nothing can be a mode of presentation unless it plays that role. [Schiffer 1990, p. 252]<sup>18</sup>

Since, in my opinion, the philosophical literature does not offer any clearer, less controversial and more widely accepted characterisation of the notion of a mode of presentation, I shall follow Schiffer in characterising modes of presentation as follows:

Characterisation 3: A mode of presentation is whatever satisfies Frege's Constraint.

### 3. Puzzles of impossibility

Section 1 of this chapter investigated the puzzles of inconsistency (in which someone simultaneously appears to believe that  $p$  and believe that  $\sim p$  even though she is intuitively rational) and explained how these puzzles can be solved using modes of presentation, which at the end of last section have been characterised in terms of Frege's Constraint. Let us now consider a different kind of puzzles, in which someone appears to believe something impossible such as that  $p \& \sim p$  or that  $a \neq a$  or that  $a$  is more/less  $F$  than  $a$  even though she is intuitively rational: the puzzles of impossibility.

As an example of this kind of puzzles, reconsider the 'Paderewski' case, where Peter mistakes Paderewski for two individuals, a pianist and a politician. Besides having the disposition to assert sincerely, on reflection and competently "Paderewski has musical talent" and "Paderewski has no musical talent", Peter has such a disposition towards sentence (12), as well as towards other impossible sentences like "Paderewski has musical talent and Paderewski has no musical talent" and "Paderewski has more musical talent than Paderewski", using the name 'Paderewski' in these sentences with the intention of referring to *the pianist Paderewski* and *the politician Paderewski* respectively. Now, on the basis of Peter's sincere disposition to assert (12), we may infer report (13) using Positive Disquotation (p. 11). But how can Peter, who is supposed to be rational, believe something impossible (viz. illogical) such as that Paderewski is not Paderewski?

- (12) Paderewski is not Paderewski.
- (13) Peter believes that Paderewski is not Paderewski.

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<sup>18</sup> Notice that Frege's Constraint involves a *de re* form, ' $x$  believes  $y$  to be such and such under  $m$ '. This feature of the constraint seems crucial for its generality and leads Schiffer [1990, p. 252] to claim that "it is of course consistent with their acceptance of Frege's Constraint that different propositionalists will utilize modes of presentation in different ways": e.g. for some Russellians, to believe  $y$  to be such and such under a mode of presentation  $m$  is just to have the disposition to inwardly assent to the Russellian proposition *that  $x$  is such an such* under the guise  $m$ ; for a Fregean, to believe  $x$  to be such and such under a mode of presentation  $m$  is just to believe the Fregean proposition *that  $m$* , where the proposition *that  $m$*  is true in the actual world just in case  $x$  is such and such; etc. For more details on this issue, see Schiffer [1990, Section 1].

*Barcan Marcus's solution:*

According to Ruth Barcan Marcus [1983, 1990], *subjects cannot believe impossible things*. Taking for granted Marcus' thesis, the 'Paderewski' case of impossibility will be solved by maintaining that report (13) is false because Peter cannot believe something impossible such as that Paderewski is not Paderewski.<sup>19</sup>

*Objections:*

This solution yields the rejection of Positive Disquotation: (13) is false notwithstanding Peter's disposition to assert sincerely (12). However, compelling arguments have been put forward on pp. 12-14 in favour of Positive Disquotation. In addition to them, we may observe that the strategy of rejecting Positive Disquotation does not help resolve the following *puzzle of impossibility about assertion*: Peter (who is a rational person) has the disposition to assert sincerely, on reflection and competently sentence (12); so he also has the disposition to assert under the same conditions that Paderewski is not Paderewski; but how can he rationally do so? (The move from asserting (12) to asserting that Paderewski is not Paderewski seems even more unobjectionable than the move from asserting (12) to believing that Paderewski is not Paderewski.)

- (12) Paderewski is not Paderewski.
- (13) Peter believes that Paderewski is not Paderewski.

*A mode-of-presentation solution to the puzzles of impossibility:*

The solution to the puzzles of impossibility proposed by the mode-of-presentation theorists differs from Barcan Marcus's in that it takes the report (13) to be *correct*. The fact that Peter believes Paderewski not to be identical to Paderewski does not make him irrational, because he believes such a thing under the mode of presentation corresponding to the *non-illogical* sentence "The pianist Paderewski is not the politician Paderewski" which he fails to realize is a mode of presentation of something illogical.

The 'Paderewski' case of impossibility with assertion in lieu of belief presented above is solved in an analogous way. Peter rationally has the disposition to assert that Paderewski is not Paderewski, since he thinks of the individual Paderewski under two different modes of presentation, corresponding to the descriptions 'the pianist Paderewski' and 'the politician Paderewski', which he takes to be modes of presentation of different individuals.

*A remark:*

This solution to the puzzles of impossibility in terms of modes of presentation reveals that, besides Frege's Constraint, modes of presentation are also subject to the following constraint (which is actually a consequence of Frege's Constraint).

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<sup>19</sup> We will see in Chapter 5 that, besides Marcus, Fine [2007, p. 139, n. 12] also solves, in certain circumstances, the 'Paderewski' puzzling case of impossibility by denying (13).

Consequence of Frege's Constraint: A rational subject cannot believe  $a$  to be  $F$  and  $a$  not to be  $F$ , or believe  $a$  not to be identical to  $a$ , or believe  $a$  to be more/less  $F$  than  $a$ , thinking of both occurrences of  $a$  and of both occurrences of Being  $F$  under the same modes of presentation, or under different modes of presentation which the subject realizes are modes of presentation of the same things.<sup>20</sup>

#### 4. Puzzles of contradiction

We have examined so far the puzzles of inconsistency (in which a rational subject simultaneously appears to believe two *contradictory* things) and the puzzles of impossibility (in which a rational subject appears to believe something *self-contradictory* or however illogical). The puzzles of contradiction differ from the previously examined puzzles in that the contradiction involved in them concerns not what the subjects believe but the logical form of the belief-reporting sentences: as we will see, starting from intuitive premises, it is possible to arrive at the unacceptable conclusion that sentences of the form ' $S$  believes that  $p$  and  $S$  does not believe that  $p$ ' are true.

As an example of a puzzle of contradiction, consider once again the 'Paderewski' case, in which (14) and (15) are both true. Under the supposition that Peter is rational, using Rationality (p. 11), we can infer (16) from (15). But the conjunction of (14) and (16) is a contradiction.

- (14) Peter believes that Paderewski has musical talent.
- (15) Peter believes that Paderewski has no musical talent.
- (16) Peter does not believe that Paderewski has musical talent.

Actually, this version of the 'Paderewski' case seems nothing but a reformulation of the 'Paderewski' case of inconsistency, since it originates in the very same principles that give rise to the 'Paderewski' case of inconsistency (i.e. Positive Disquotation, Conjunction and Rationality). Here is, instead, a "genuine" puzzle of contradiction, in

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<sup>20</sup> I shall show here with an *ab absurdo* argument that the Consequence of Frege's Constraint (call it *Consequence*) is a consequence of this constraint. Remember first what Frege's Constraint states: a rational subject cannot simultaneously believe and disbelieve  $a$  to be  $F$  under the same mode of presentation, or under different modes of presentation which the subject realizes are modes of presentation of the same thing. Now, suppose *ab absurdo* that the Consequence is false whereas Frege's Constraint is true. In particular, suppose that the Consequence is false because (j)  $S$  believes  $a$  to be  $F$  and  $a$  not to be  $F$ , thinking of both occurrences of  $a$  and of both occurrences of Being  $F$  under the same modes of presentation; but, if so, using the thesis that believing the conjunction entails believing the conjuncts, we immediately arrive at the conclusion that  $S$  believes and disbelieves  $a$  to be  $F$  under the same mode of presentation, *contra* (the supposedly true) Frege's Constraint. Alternatively, suppose that the Consequence is false because (jj)  $S$  believes  $a$  not to be identical to  $a$ , thinking of both occurrences of  $a$  under the same mode of presentation,  $m$ ; on the other hand,  $S$  certainly also believes  $a$  to be identical to  $a$ , thinking of both occurrences of  $a$  under  $m$ ; but then  $S$  both believes and disbelieves  $a$  to be identical to  $a$  under the same mode of presentation, again *contra* Frege's Constraint. Finally, suppose that the Consequence is false because (jjj)  $S$  believes  $a$  to be more/less  $F$  than  $a$ , thinking of both occurrences of  $a$  under  $m$ ; if so,  $S$  will both believe and disbelieve  $a$  to be  $F$ -at-a-given-degree under the same mode of presentation, *contra* Frege's Constraint.

which no appeal is made to Rationality whereas another principle, *Negative Disquotation*, is involved:

- (a) Tom is a non-reticent speaker. [Assumption]
- (b) Tom mistakes Marcus Tullius Cicero for two distinct people, *Cicero* and *Tully*. [Assumption]
- (c) Tom has the disposition to assert sincerely, on reflection and competently “Cicero is bald”. [Assumption]
- (d) Tom does not have the disposition to assert sincerely, on reflection and competently “Tully is bald”. [Assumption]
- (e) Tom believes that Cicero is bald. [From (c) using Positive Disquotation, p. 11]
- (f) Tom does not believe that Tully is bald. [From (d) using Negative Disquotation]
- (g) Tom does not believe that Cicero is bald [from (f) using Substitution, p. 8]
- (h) Tom believes that Cicero is bald and Tom does not believe that Cicero is bald. [From (e) and (g) using Conjunction, p. 11]
- (i) Report (h) is contradictory.

Negative Disquotation: If a non-reticent subject *S* does not have the disposition to sincerely, on reflection and competently assert (or accept or assent to) sentence ‘*p*’, where the substituends for ‘*p*’ are sentences lacking indexical or pronominal devices or ambiguities, then *S* does not believe that *p*.

Different strategies have been put forward by the *mode-of-presentation theorists* in order to solve the puzzles of contradiction. These strategies, unlike those adopted for the solution to the puzzles of inconsistency and impossibility, do not seem to be reducible to a common basic idea. In what follows I shall separately present two well-known strategies used to solve the puzzles of contradiction: Frege’s strategy; and a strategy defended by most (contemporary) Russellian philosophers.

*Frege’s strategy*:

According to this strategy, the ‘Cicero’/‘Tully’ case of contradiction is solved by blocking the move from (f) to (g), on the grounds that Tom believes the Fregean proposition *that Cicero is bald* (i.e., roughly speaking, a structured mode of presentation corresponding to the sentence “Cicero is bald”) while he does not believe the Fregean proposition *that Tully is bald* (i.e., roughly speaking, a structured mode of presentation corresponding to the sentence “Tully is bald”), with the result that report (g), which states that Tom *does not* believe the Fregean proposition *that Cicero is bald*, will be false.

It is worth noticing that Frege blocks the move from (f) to (g) by *disallowing the application of Substitution* (p. 8): this principle applies to *co-referring* terms only, whereas ‘Tully’ in (f) and ‘Cicero’ in (g), for Frege, refer to different *senses*.

*Russellian strategy*:

According to Frege and the Fregeans in general, modes of presentation enter the semantic content of (i.e. the proposition expressed by) belief reports. However, this view is rejected by (contemporary) Russellian philosophers, e.g. Nathan Salmon, Scott Soames, David Braun: according to them, this content is a Russellian proposition, whose basic components are solely individuals, properties and relations.

Although Russellians do not insert modes of presentation into the semantic content of belief reports, they however think that the truth-conditions of these reports embody modes of presentation. In particular, according to Salmon [1986], a report like (e) (p. 23) is true if and only if there is a mode of presentation (*guise*) under which Tom has the disposition to inwardly assent (*BEL*) to the Russellian proposition <Cicero, Baldness>. So, in the ‘Cicero’/‘Tully’ case of contradiction, report (e) is true since, as it emerges from step (c), there is a mode of presentation under which Tom has the disposition to assent to <Cicero, Baldness>: it is the mode of presentation corresponding to the sentence “Cicero is bald”. Now, if report (e) is true then reports (f) and (g), both expressing the negation of the Russellian proposition expressed by (e), will be false. Accordingly, the ‘Cicero’/‘Tully’ case of contradiction will be solved by blocking the move from (d) to (f), so *rejecting Negative Disquotation* (p. 23).

In sum, one way or another, the notion of a mode of presentation (defined in terms of Frege’s Constraint) allows, in principle, the solving of the classical puzzles of inconsistency, impossibility and contradiction. We will see in the next chapter, however, that completely new puzzles about belief can be raised which modes of presentation are unable to solve.

## Chapter 2

### New Puzzles about Belief

In the previous chapter, I examined three kinds of puzzles about belief:

Puzzles of inconsistency, in which someone simultaneously appears to believe that  $p$  and believe that  $\sim p$ , even though she is intuitively rational;

Puzzles of impossibility, in which someone appears to believe something impossible such as that  $p \& \sim p$ , or that  $a \neq a$ , or that  $a$  is more/less  $F$  than  $a$ , even though she is intuitively rational;

Puzzles of contradiction, in which someone simultaneously appears to believe that  $p$  and not believe that  $p$ .

I also explained how the classical puzzles of inconsistency, impossibility and contradiction can be solved using modes of presentation, which have been defined as *anything satisfying Frege's Constraint*.

Frege's Constraint: A rational subject cannot simultaneously believe and disbelieve (i)  $a$  to be  $F$  under the same mode of presentation, or (ii) under different modes of presentation which she realizes are modes of presentation of the same thing.

The purpose of this chapter is to present a number of new puzzles about belief in which, intuitively, a rational subject believes and disbelieves  $a$  to be  $F$  under the same mode of presentation, *contra* part (i) of Frege's Constraint; or she believes and

disbelieves *a* to be *F* under modes of presentation which she realizes are modes of presentation of the same thing, *contra* part (ii) of Frege's Constraint. Since these puzzles intuitively falsify either part of this constraint, a solution to them using modes of presentation (defined as things satisfying this constraint or even one of its parts) will not work.

In order to overcome this difficulty, part (ii) of Frege's Constraint will be rejected, and alternative definitions of the notion of a mode of presentation in terms of sophisticated variants of part (i) of this constraint will be explored. Unfortunately for the advocates of modes of presentation, some of the new puzzles presented in this chapter falsify even these variants.

One may then think that neither part of Frege's Constraint nor its possible variants actually provides a correct definition of the notion of a mode of presentation and that something else is needed. It is wholly unclear, on the other hand, what this *something else* should be and what remains of the idea of a mode of presentation once both parts of Frege's Constraint and its cognates are dismissed.

I shall finally arrive at the following conclusion: no characterisation of the notion of a mode of presentation, which makes modes of presentation able to intuitively solve all new puzzles about belief, is available. More simply stated, *resorting to modes of presentation does not suffice to solve the puzzles about belief*.

## 1. Cases *contra* part (ii) of Frege's Constraint

I shall start my investigation from two new puzzling cases about belief aiming to falsify part (ii) of Frege's Constraint: the 'George Eliot'/'Mary Ann Evans' case and the 'Superman'/'Clark Kent' case.

### 1.1 The 'George Eliot'/'Mary Ann Evans' case

This case was originally proposed by Stephen Schiffer as an objection to Nathan Salmon's Neo-Russellian theory of belief reports. Since the publication of Schiffer's first article against Salmon's theory in 1987, "The 'Fido'-Fido Theory of Belief", a highly interesting debate on this and other related cases has been going on between Schiffer and Salmon, with some contribution from David Braun. The relevant literature on this debate includes: Schiffer's articles "The 'Fido'-Fido Theory of Belief", "A Problem for a Direct-Reference Theory of Belief Reports", "Why Believing Isn't a Relation to Russellian Propositions"; Salmon's works *Frege's Puzzle*, "Illogical Belief", "The Resilience of Illogical Belief"; and Braun's article "Illogical, but Rational". Here I shall try to present the 'George Eliot'/'Mary Ann Evans' case as a case against not just Salmon's theory of belief but any propositionalist theory of belief with modes of presentation (*viz.* any theory which endorses Frege's Constraint).

In order to present Schiffer's case, it is useful to reformulate Frege's Constraint as follows:

FC\*: A rational subject can simultaneously believe and disbelieve *a* to be *F* only (i\*) thinking of *a* under different modes of presentation which she takes to be modes of presentation of distinct objects, or (ii\*) thinking of the property of *Being F* under different modes of presentation which she takes to be modes of presentation of distinct properties.<sup>1</sup>

FC\* differs from the original version of Frege's Constraint (p. 25) in only one relevant respect: the mode of presentation of *a*'s being *F* contained in Frege's Constraint is "partitioned", in the new constraint, into the mode of presentation of the object *a* and the mode of presentation of the property of *Being F*.

Here is, finally, the 'George Eliot'/'Mary Ann Evans' case, as presented in Schiffer's article "Why Believing Isn't a Relation to Russellian Propositions" [2010, pp. 4-5]:

Ralph knows something about the literature and people of nineteenth century England. He knows that a certain George Eliot wrote *Middlemarch* and some other novels, and he knows that a certain Mary Ann Evans caused something of a scandal by her love affair with the married philosopher and literary man George Henry Lewes. Ralph doesn't know, however, that 'George Eliot' was the pen name of Mary Ann Evans, and on the basis of what he does know he made certain reasonable inferences, so that we can truly report:

- (1) Ralph believes that George Eliot was a man;
- (2) Ralph does not believe that Mary Ann Evans was a man.

[...] Jane is Ralph's professor of English literature and, unlike Ralph, she knows that George Eliot and Mary Ann Evans were one and the same person. In fact, she has no two modes of presentation of Eliot which she fails to take to be of the same person. But Jane overheard Ralph's confident utterance of 'I believe that George Eliot was a man, but I certainly don't believe that Mary Ann Evans was a man' and took him at his word. So we have it that:

- (3) Jane believes that Ralph believes that George Eliot was a man;
- (4) Jane disbelieves that Ralph believes that Mary Ann Evans was a man.

Schiffer's story can be exploited to construct a counter-example to FC\*. We should first observe that FC\* involves the *de re* sentence form '*S* (dis)believes *a* to be *F*'. In order to reach a falsification of FC\*, we consequently need to derive from (3) and (4) sentences having exactly this form. They could be e.g.:

- (5) Jane believes [the proposition] that George Eliot was a man to be something Ralph believes;
- (6) Jane disbelieves [the proposition] that Mary Ann Evans was a man to be something Ralph believes.

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<sup>1</sup> See Schiffer [2010, pp. 3-4].

Now, suppose (at least provisionally) that the principle of substitution *salva veritate* successfully applies to ‘Mary Ann Evans’ in (6). If so, we are allowed to move from (6) to:

(7) Jane disbelieves [the proposition] that George Eliot was a man to be something Ralph believes.

Keeping in mind that Jane knows that ‘George Eliot’ and ‘Mary Ann Evans’ co-refer, from the truth of (5) and (7) a *falsification of FC\** follows: Jane rationally believes and disbelieves the proposition *that George Eliot was a man* to be something Ralph believes, even (~i\*) thinking of this proposition under two modes of presentation, respectively corresponding to the sentences (1) and (8), which *Jane takes to be modes of presentation of the same proposition* (since she knows that ‘George Eliot’ and ‘Mary Ann Evans’ co-refer), and (~ii\*) thinking of the property of *Being something Ralph believes* under the same mode of presentation.<sup>2</sup>

(1) Ralph believes that George Eliot was a man.

(8) Ralph believes that Mary Ann Evans was a man.

Successful replies to this falsification of FC\* have been (or could be) put forward both by Fregean and Russellian advocates of modes of presentation.

*Reply from the Fregeans:*

A Fregean theorist could rebut the aforesaid falsification of FC\* by blocking the move from (6) to (7), using the fact that the Fregean proposition *that Mary Ann Evans was a man* differs from the Fregean proposition *that George Eliot was a man*.

*Reply from the Russellians (viz. Salmon):*

According to Salmon [1989, pp. 267-268], the proposed falsification of FC\* does not succeed because the two modes of presentation corresponding to sentences (1) and (8), under which Jane believes (or rather *BELs*) the Russellian proposition <Ralph, Believing, <Eliot, Having been a man>>, *are taken by her to be modes of presentation of different propositions, coherently with FC\** (p. 27). In fact, although Jane knows that ‘George Eliot’ and ‘Mary Ann Evans’ co-refer, she mistakes the proposition <Eliot, Having been a man>, and consequently the proposition <Ralph, Believing, <Eliot, Having been a man>>, for two distinct thoughts, so failing to realize that the modes of presentation corresponding to (1) and (8) are modes of presentation of the same Russellian proposition.

In Salmon’s view, Jane’s mistake of <Ralph, Believing, <Eliot, Having been a man>> for distinct thoughts is the most plausible explanation of the fact that Jane *rationally* takes as correct Ralph’s *quasi*-contradictory statement “I believe that George

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<sup>2</sup> The present version of the ‘George Eliot’/‘Mary Ann Evans’ case is my own re-elaboration of some considerations contained in Salmon [1989, pp. 267-268].

Eliot was a man, but I certainly don't believe that Mary Ann Evans was a man", notwithstanding her knowing that 'George Eliot' and 'Mary Ann Evans' co-refer.

Both Salmon's and the Fregean replies to the 'George Eliot'/'Mary Ann Evans' case are effective. On the other hand, neither of them succeeds against another of Schiffer's versions of the 'George Eliot'/'Mary Ann Evans' case which I am going to present in the next section.

## 1.2 Second version of the 'George Eliot'/'Mary Ann Evans' case

Reconsider the reports:

- (3) Jane believes that Ralph believes that George Eliot was a man;
- (4) Jane disbelieves that Ralph believes that Mary Ann Evans was a man.

Besides (5) and (6) (p. 27), two other sentences of the form '*S* (dis)believes *a* to be *F*' can (at least *prima facie*) be derived from (3) and (4): (9) and (10). The *de re* sentence (10) (in which the position occupied by 'Mary Ann Evans' is open to substitution) implies, for the Russellian theorists and for the Fregeans as well, sentence (11).<sup>3</sup>

- (9) Jane believes George Eliot to be such that Ralph believes she was a man.
- (10) Jane disbelieves Mary Ann Evans to be such that Ralph believes she was a man.
- (11) Jane disbelieves George Eliot to be such that Ralph believes she was a man.

The true sentences (9) and (11) yield the following *falsification of FC\** (p. 27): Jane believes and disbelieves George Eliot to be such that Ralph believes she was a man even (~i\*) thinking of Eliot under the modes of presentation corresponding to the names 'George Eliot' and 'Mary Ann Evans', which *Jane realizes are modes of presentation of the same person* (since she knows that 'George Eliot' and 'Mary Ann Evans' co-refer), and (~ii\*) thinking of the property of *Being such that Ralph believes she was a man* under the same mode of presentation.

*Salmon's reply:*

Salmon [1989, pp. 269-270; 2006, pp. 370-371] rebuts Schiffer's new falsification of FC\*, claiming that the *moves from (3) to (9) and from (4) to (10) are illegitimate*. Both these moves are in fact instantiations of the thesis (T1) which, according to Salmon, is false.

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<sup>3</sup> One may wonder how a Fregean could accept these moves, considering that Frege's theory of belief does not embody the notion of *de re* belief report. Actually, Schiffer [1990, p. 253] has shown how a Fregean could account for this kind of reports: to believe *x* to be such and such under a mode of presentation *m* is just to believe the Fregean proposition that *m*, where the proposition that *m* is true in the actual world just in case *x* is such and such. Famously, Kaplan [1969] also proposed a Fregean analysis of *de re* reports.

- (T1) Every instance of ‘ $\alpha$  believes that  $\phi_\beta$ ’ necessarily entails the corresponding instance of ‘ $\alpha$  believes  $\beta$  to be (something/someone) such that  $\phi_{it}$ ’, where ‘ $\phi_{it}$ ’ is an “open sentence” in which the pronoun ‘it’ occurs as a free variable.

The following counter-example proves, in Salmon’s [2006, p. 371] view, the falsity of (T1): (12) (which is an instance of ‘ $\alpha$  believes that  $\phi_\beta$ ’) does not entail (13) (which is an instance of ‘ $\alpha$  believes  $\beta$  to be someone such that  $\phi_{it}$ ’), because (13) *must be taken as saying the same as* (14),<sup>4</sup> and (12) does not entail (14).

- (12) Ralph believes that Orcutt is taller than Orcutt.  
 (13) Ralph believes Orcutt to be someone such that he is taller than he.  
 (14) Ralph believes Orcutt to be someone such that he is taller than himself.

*A doubt arising from Salmon’s counter-example:*

In my opinion, a doubt arises about Salmon’s claim that (13) *says the same as* (14). This claim presupposes that in (13) the second occurrence of the pronoun ‘he’ is anaphorically linked to its first occurrence. But, intuitively, nothing in (13) suggests the existence of such a link: the only anaphoric links involved in this sentence are those between either occurrence of ‘he’ and the name ‘Orcutt’.

More crucially, it should be noted that if in (13) the second occurrence of ‘he’ is anaphorically linked to its first occurrence, then the predicate ‘is taller than he’ in this sentence, exactly as the predicate ‘is taller than himself’ in (14), will express (or denote) the *irreducibly* monadic property of *Being taller than himself* (where by ‘irreducibly monadic’ I mean a monadic property not containing a relation as a constituent) – in contrast e.g. to the predicate ‘is taller than Orcutt’ in (12) which expresses the *reducibly* monadic property of  $\langle$ *Being taller than*, Orcutt $\rangle$ . On the other hand, I cannot see how taking ‘is taller than he’ in (13) as expressing such an irreducibly monadic property is compatible with Salmon’s claim that (13) is an instance of the schema ‘ $\alpha$  believes  $\beta$  to be someone such that  $\phi_{it}$ ’ considering that: the predicational form ‘ $\phi$ ’ in this schema is instantiated in (13) by the predicate ‘is taller than’, because (the *same*) ‘ $\phi$ ’ in the schema ‘ $\alpha$  believes that  $\phi_\beta$ ’ is instantiated in (12) by the predicate ‘is taller than’; since this predicate in (12) expresses the *relation of Being taller than*, ‘is taller than’+‘he’ in (13) cannot express an irreducibly monadic property (i.e. a property *not* containing a relation as a constituent).

Summing up, if *ab absurdo* (13) says the same as (14) then the predicate ‘is taller than he’ in (13) should express the irreducibly monadic property of *Being taller than himself*, but this is incompatible with Salmon’s claim that (13) is an instance of the schema ‘ $\alpha$  believes  $\beta$  to be someone such that  $\phi_{it}$ ’. Since Salmon’s claim is indisputable, we must conclude that (13) does *not* say the same as (14). If so, the fact that (12) does not

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<sup>4</sup> Salmon’s taking (13) and (14) as saying the same emerges in this passage of “The Resilience of Illogical Belief” [2006, p. 371]: “Ralph [...] believe[s] Orcutt to be someone taller than himself; i.e., Orcutt is [...] believed by Ralph to be something  $z$  such that  $z$  is taller than  $z$ ”. The latter sentence is nothing but a reformulation of (13).

entail (14) does not prevent us from maintaining, coherently with thesis (T1) and therefore *contra* Salmon, that (12) entails (13).

*Salmon's further considerations:*

Put aside this doubt of mine about Salmon's (alleged) counter-example to (T1) and reconsider the moves from the *second-order* belief reports (3) and (4) to respectively (9) and (10).

- (3) Jane believes that Ralph believes that George Eliot was a man.
- (4) Jane disbelieves that Ralph believes that Mary Ann Evans was a man.
  
- (9) Jane believes George Eliot to be such that Ralph believes she was a man.
- (10) Jane disbelieves Mary Ann Evans to be such that Ralph believes she was a man.

I previously said that Salmon disallows these moves so rejecting thesis (T1), of which they are instantiations. On the other hand, in the article "The Resilience of Illogical Belief", Salmon also maintains that the move from the *first-order* belief report "Ralph believes that George Eliot was a man" to "Ralph believes George Eliot to have been a man", which is also an instance of (T1), is permitted. How can this move be permitted compatibly with the rejection of (T1)?

Salmon [2006] answers this question by introducing and defending the following thesis:

- (T2) Every instance of ' $\alpha$  believes that  $\phi_\beta$ ' necessarily entails the corresponding instance of ' $\alpha$  believes  $\beta$  to be (something/someone) such that  $\phi_{it}$ ' if the open sentence ' $\phi_{it}$ ' has *monadic*-predicational form, 'It'+*VP*, where *VP* is a monadic predicate in which the pronoun 'it' does not occur free.

Thesis (T2) leads Salmon to affirm that: the move from the first-order belief report "Ralph believes that George Eliot was a man" to "Ralph believes George Eliot to have been a man" is permitted, because the predicate 'was a man' is monadic; instead, the moves from the second-order belief reports (3) and (4) to respectively (9) and (10) are not permitted, since the predicate 'believes' is not monadic.

- (3) Jane believes that Ralph believes that George Eliot was a man.
- (4) Jane disbelieves that Ralph believes that Mary Ann Evans was a man.
  
- (9) Jane believes George Eliot to be such that Ralph believes she was a man.
- (10) Jane disbelieves Mary Ann Evans to be such that Ralph believes she was a man.

*Schiffer's doubts about Salmon's thesis (T2):*

Although it is true that (T2) does not justify the moves from (3) to (9) and from (4) to (10) (since the predicate ‘believes’ is not monadic), on the other hand, neither does (T2) disallow these moves. If Salmon really wanted to disallow them, he should hold the following stronger thesis:

(T3) Every instance of ‘ $\alpha$  believes that  $\phi_\beta$ ’ necessarily entails the corresponding instance of ‘ $\alpha$  believes  $\beta$  to be (something/someone) such that  $\phi_{it}$ ’ *if and only if* the open sentence ‘ $\phi_{it}$ ’ has monadic-predicational form, ‘It’+VP, where VP is a monadic predicate in which the pronoun ‘it’ does not occur free.

But Salmon nowhere puts forward an argument in favour of (T3). What’s more, Schiffer [2010, p. 12] has proposed some counter-examples to (T3):

Consider [...] Dr. Fritz Lauben, an acquaintance of George Henry Lewes who knew Mary Ann Evans and knew about the love affair she and Lewes were having. I should think that if

(15) Ralph believes George Eliot to have been a man  
counts as true by virtue of its being the case that

(1) Ralph believes that George Eliot was a man,  
then

(16) Fritz believed Lewes to have loved Eliot  
(17) Fritz believed Lewes was such that Evans pitied his, Lewes’, wife  
should count as true by virtue of its being the case that

(18) Fritz believed that Lewes loved Evans  
(19) Fritz believed that Evans pitied Lewes’ wife.

The intuitive correctness of the moves from (18) to (16) and from (19) to (17) falsify thesis (T3), since the predicates ‘loved’ and ‘pitied’ are not monadic.

### 1.3 Third version of the ‘George Eliot’/‘Mary Ann Evans’ case

In “Illogical Belief” [p. 245], Salmon claims that “to believe *of* an individual  $x$ , *de re*, that it (he, she) is  $F$  is to believe *de dicto* the singular proposition about (containing)  $x$  that it (he, she) is  $F$ ”. Coherently with this claim, in “The Resilience of Illogical Belief” [p. 369], he endorses the following thesis:

(T4) Every instance of ‘ $\alpha$  believes that  $\phi_\beta$ ’ necessarily entails the corresponding instance of ‘ $\alpha$  believes of  $\beta$  that  $\phi_{it}$ ’.

On the other hand, we have also seen (pp. 29-30) that Salmon rejects thesis (T1). How can his defence of (T4) be conciliated with his rejection of (T1)?

(T1) Every instance of ‘ $\alpha$  believes that  $\phi_\beta$ ’ necessarily entails the corresponding instance of ‘ $\alpha$  believes  $\beta$  to be (something/someone) such that  $\phi_{it}$ ’.

Salmon reaches this conciliation by drawing a distinction between the *de re* sentence forms involved in (T1) and (T4),

- (a)  $\alpha$  believes *of*  $\beta$  that  $\phi_t$
- (b)  $\alpha$  believes  $\beta$  *to be* (something/someone) such that  $\phi_t$ ,

and by maintaining that an instance of (a) *does not* necessarily entail the corresponding instance of (b).

This distinction is, nevertheless, quite artificial. It can be better understood, perhaps, by looking at the Russellian propositions that, according to Salmon [2006, pp. 369, 371], are expressed by sentences having these *de re* forms. Sentences of the form (a) – sometimes rewritten by Salmon as ‘ $\beta$  is such that  $\alpha$  believes that  $\phi_t$ ’ – express, exactly as those of the form ‘ $\alpha$  believes that  $\phi_\beta$ ’, the Russellian proposition  $\langle \alpha, B, \langle \beta, \phi\text{-ing} \rangle \rangle$ , where the two-place belief relation  $B$  holds between the subject  $\alpha$  and the singular proposition  $\langle \beta, \phi\text{-ing} \rangle$ . Sentences of the form (b) – sometimes rewritten by Salmon as ‘ $\beta$  is believed by  $\alpha$  to be (something/someone) such that  $\phi_t$ ’ – express the Russellian proposition  $\langle \langle \alpha, \beta, \text{Being such that } \phi \rangle, B^* \rangle$ , where the three-place belief relation  $B^*$  (which, incidentally, should not be confused with the relation  $BEL$  of being disposed to inwardly/mentally assent to a proposition under a guise) holds among the subject  $\alpha$ , the object  $\beta$  and the property of  $\phi$ -ing.

On the other hand, this Russellian analysis of (a) and (b) does not *intuitively* explain Salmon’s claim that (a) does not necessarily entail (b). More importantly for our purposes, using this distinction plus Salmon’s thesis (T4), it is possible to devise a *third version of the ‘George Eliot’/‘Mary Ann Evans’ case*. To this end, let us first introduce a new constraint about modes of presentation, which differs from FC\* (p. 27) in its involving the sentence form ‘ $S$  (dis)believes of  $a$  that it is  $F$ ’ instead of the sentence form ‘ $S$  (dis)believes  $a$  to be  $F$ ’:

FC\*\*: A rational subject can simultaneously believe and disbelieve of  $a$  that it is  $F$  only (i\*\*) thinking of  $a$  under different modes of presentation which she takes to be modes of presentation of distinct objects, or (ii\*\*) thinking of the propositional matrix *that  $x$  is  $F$*  under different modes of presentation which she takes to be modes of presentation of distinct matrixes.

Thesis (T4) allows moving from (3) and (4) to respectively (20) and (21).

- (3) Jane believes that Ralph believes that George Eliot was a man.
- (4) Jane disbelieves that Ralph believes that Mary Ann Evans was a man.
- (20) Jane believes of George Eliot that Ralph believes she was a man.
- (21) Jane disbelieves of Mary Ann Evans (i.e. Eliot) that Ralph believes she was a man.

Sentences (20) and (21) yield a *falsification of FC\*\**: Jane rationally believes and disbelieves of George Eliot that Ralph believes she was a man, even ( $\sim$ i\*\*) thinking of Eliot under modes of presentation corresponding to the names ‘George Eliot’ and ‘Mary

Ann Evans’, which *Jane realizes are modes of presentation of the same person* (since she knows that ‘George Eliot’ and ‘Mary Ann Evans’ co-refer), and (~ii\*\*) thinking of the propositional matrix *that Ralph believes x was a man* under the same mode of presentation.<sup>5</sup>

*Salmon’s reply:*

Salmon [2006, p. 373] solves this further version of the ‘George Eliot’/‘Mary Ann Evans’ case by simply rejecting constraint FC\*\*.

*A doubt about Salmon’s solution:*

I wonder how *intuitively* Salmon can at the same time reject FC\*\* (p. 33) and keep FC\* (p. 27). In other words, I can hardly understand how, on one hand, Jane can rationally believe and disbelieve of Eliot that Ralph believes she was a man even without thinking of Eliot under two different modes of presentation which she does not realize are modes of presentation of the same person (*contra* FC\*\*) while, on the other hand, she is forbidden to rationally believe and disbelieve Eliot to be such that Ralph believes she was a man for the reason that she does not think of Eliot under such modes of presentation (in accordance with FC\*).

#### 1.4 The ‘Superman’/‘Clark Kent’ case

The examined versions of Schiffer’s ‘George Eliot’/‘Mary Ann Evans’ case crucially involve second-order belief reports. In my opinion, the same results obtained against Frege’s Constraint using this kind of reports can more simply be achieved by resorting to first-order belief reports. This is what I am going to show in this section by presenting a new puzzling case about belief, the ‘*Superman*’/‘*Clark Kent*’ case. Interestingly, Salmon’s examined replies to the ‘George Eliot’/‘Mary Ann Evans’ case are ineffective against the new case presented here.

The ‘Superman’/‘Clark Kent’ case originates in certain considerations about simple sentences (quite independent of my present purposes) made by Jennifer Saul in her article with David Braun “Simple Sentences, Substitutions, and Mistaken Evaluations” [2002, p. 1]:

Many competent speakers initially judge that (22) is true and (23) is false, though they know that (24) is true.

[...] But perhaps you did not have these intuitions. No matter: it’s undeniable that many competent, rational, relevantly well-informed speakers who understand

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<sup>5</sup> This version of the ‘George Eliot’/‘Mary Ann Evans’ case can be found in Salmon [2006, pp. 372-373]. Although it resembles in some respects the first version of this case presented in Section 1.1, some relevant differences exist between them: the version presented here involves sentences of the form ‘ $\alpha$  (dis)believes of  $\beta$  that  $\phi_t$ ’ instead of sentences of the form ‘ $\alpha$  (dis)believes  $\beta$  to be (something/someone) such that  $\phi_t$ ’; this version also involves “partitioned” modes of presentation for the individual Eliot and the propositional matrix *that Ralph believes x was a man* instead of modes of presentation of the “whole” proposition *that George Eliot* (or *Mary Ann Evans*) *was a man*.

these sentences *do* have them, at least initially – the reactions of readers to Saul [1997] are sufficient to establish this.

- (22) Superman leaps more tall buildings than Clark Kent.
- (23) Superman leaps more tall buildings than Superman.
- (24) Superman is Clark Kent.

What Braun & Saul affirm in the quoted passage is thoroughly reasonable. Let us take it for granted and let us make two replacements in this passage. First, let us replace the verb ‘judge’ with the verb ‘believe’. Actually, such a replacement is explicitly made by Braun & Saul themselves in another passage of their article [Braun & Saul 2002, p. 20]:

[...] you come to believe that (22) is true and (23) is false.<sup>6</sup>

Secondly, let us replace (22) and (23) respectively with:

- (22\*) Superman flies.
- (23\*) Clark flies.

The pair of sentences (22\*) and (23\*) differ from (22) and (23) in that either sentence of the former pair contains *only one* name of the individual Clark Kent. This kind of replacement is also approved by Saul: in her article “Substitution and Simple Sentences” [1997, p. 102] she makes the same point drawn in the first quoted passage of Braun’s & Saul’s article using a pair of sentences either of which contains only one name of Clark Kent (“Dan dresses like Clark Kent”, “Dan dresses like Superman”).

Now, from Braun’s & Saul’s [2002] first quoted passage with ‘believe’ in the place of ‘judge’ and (22\*) and (23\*) in the place of (22) and (23), the following *counter-example to part (ii) of Frege’s Constraint* can be derived. Suppose that Emily is one of the rational speakers, mentioned by Braun & Saul, who believe that (22\*) is true and that (23\*) is false despite knowing that (24) is true. Hence the reports (25) and (26) are true. From these reports, we can respectively move to (27) and (28). It is important to note that these moves are perfectly in accordance with Salmon’s thesis (T2) on p. 31, since the predicate ‘flies’ is monadic.<sup>7</sup>

- (25) Emily believes that Superman flies.

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<sup>6</sup> We might also justify the replacement of ‘judge’ with ‘believe’ by appealing to the principle of Positive Disquotation (p. 39). We can reasonably suppose, in fact, that some of the speakers mentioned by Braun & Saul have the disposition, at least in certain circumstances, to sincerely, on reflection and competently affirm (22) and deny (23). From this, using Positive Disquotation (or the like), we deduce that these speakers believe that (22) is true and that (23) is false.

<sup>7</sup> My previous replacement of (22) and (23) with (22\*) and (23\*) was precisely directed to obtaining a pair of belief reports with a *monadic* predicate in the ‘that’-clause, in such a way as to make Salmon’s thesis (T2) successfully applicable to (25) and (26). Two additional remarks about the moves from (25) and (26) to respectively (27) and (28) are needed: first, performing such moves is indispensable in order to arrive at a falsification of Frege’s Constraint, since this constraint involves the sentence form ‘S believes *a* to be *F*’; second, not only Salmon but also a Fregean (whose account of belief reports does not contain the notion of *de re* report) could approve of these moves for the reasons illustrated on p. 29, n. 3.

- (26) Emily disbelieves that Clark Kent flies.
- (27) Emily believes Superman to fly.
- (28) Emily disbelieves Clark Kent to fly.

So, Emily believes and disbelieves Superman (i.e. Clark Kent) to fly. She does so under different modes of presentation, respectively corresponding to the sentences (22\*) and (23\*), which *she realizes are modes of presentation of the same thing* since she knows that (24) is true. Part (ii) of Frege’s Constraint (see below) is consequently falsified.

- (22\*) Superman flies.
- (23\*) Clark flies.
- (24) Superman is Clark Kent.

Part (ii) of Frege’s Constraint: A rational subject cannot simultaneously believe and disbelieve *a* to be *F* under different modes of presentation which she realizes are modes of presentation of the same thing.

*Reply from an advocate of modes of presentation:*

In response to the ‘Superman’/‘Clark Kent’ case, an advocate of modes of presentation could argue that, whereas the names ‘Superman’ and ‘Clark Kent’ in a sentence like (24) refer to the same individual, Clark Kent (*CK*), in (22\*) and (23\*) they are taken at least by Emily to refer to different “entities”, respectively *CK-in-his-Superman-role* and *CK-in-his-role-as-a-journalist*. If so, Emily’s believing-true (22\*) and believing-false (23\*) would entail her believing and disbelieving two *different* things, respectively *CK-in-his-Superman-role to fly* and *CK-in-his-role-as-a-journalist*. No falsification of part (ii) of Frege’s Constraint follows from this – since such a falsification requires that the *same* thing is believed and disbelieved by the subject.<sup>8</sup>

*My response:*

I shall try to counter this reply by showing that *in (22\*) and (23\*) the names ‘Superman’ and ‘Clark Kent’ must be taken by Emily as referring to the same entity, viz. the individual Clark Kent.*

Suppose *ab absurdo* that Emily hears (and assents to) Lois Lane’s utterances of (22\*) and of the negation of (23\*), i.e. “Clark does not fly”, by taking ‘Superman’ and ‘Clark Kent’ as referring to *CK-in-his-Superman-role* and *CK-in-his-role-as-a-journalist* and by consequently grasping the messages *that CK-in-his-Superman-role flies* and *that CK-in-his-role-as-a-journalist does not fly*. However, Lois, unlike Emily, is *unaware* that *Superman* is *Clark Kent*; so she is unaware that the very same individual, *CK*, plays two different roles in his life. This entails that Lois cannot have communicated (viz. said or implicated) the aforesaid messages; she will have more simply communicated the propositions *that Superman flies* and *that Clark Kent does not fly*. Now, if Lois has

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<sup>8</sup> Analyses of (22\*) and (23\*) similar to these are put forward by G. Forbes [1997, 1999] and J. Moore [1999, 2000].

communicated these propositions while Emily has understood *that CK-in-his-Superman-role flies* and *that CK-in-his-role-as-a-journalist does not fly*, the communication between them has failed (at least if we take *successful* communication to be something in which a listener grasps the *very same* proposition communicated by a speaker). But this conclusion is implausible: there is no *intuitive* evidence that Lois' message is not understood by Emily; on the contrary, Emily (who, like Lois, is a competent English speaker/listener) seems to have perfectly understood the communicated message.<sup>9</sup>

In order to account for this intuition, we have therefore to conclude that, by hearing Lois Lane's utterances of (22\*) and of "Clark does not fly", Emily simply takes 'Superman' and 'Clark Kent' as referring to CK, so grasping the very same messages that Lois communicates to her, i.e. *that Superman flies* and *that Clark Kent does not fly*. These are, therefore, the propositions that Emily comes to believe (from which, as we have seen on pp. 35-36, Emily's believing and disbelieving Superman to fly follows).

### 1.5 Re-definition of modes of presentation

Let us sum up. Reconsider

Part (ii) of Frege's Constraint: A rational subject cannot simultaneously believe and disbelieve *a* to be *F* under different modes of presentation which she realizes are modes of presentation of the same thing.

Two cases against this part of Frege's Constraint have been put forward in the previous sections: the 'George Eliot'/'Mary Ann Evans' case and the 'Superman'/'Clark Kent' case. In the former, Jane rationally believes and disbelieves one thing, i.e. George Eliot to be such that Ralph believes she was a man, respectively under the modes of presentation corresponding to the sentences "Ralph believes that George Eliot was a man" and "Ralph believes that Mary Ann Evans a man", which Jane takes as modes of presentation of the same thing (since, by hypothesis, she knows that 'George Eliot' and 'Mary Ann Evans' co-refer). In the latter case, Emily believes and disbelieves Clark Kent to fly respectively under modes of presentation corresponding to "Superman flies" and "Clark Kent flies", which she takes to be modes of presentation of the same thing (since she knows that 'Superman' and 'Clark Kent' co-refer).

These two cases against part (ii) of Frege's Constraint (or at least the 'Superman'/'Clark Kent' case) should pose a problem to whoever endorses a definition of modes of presentation in terms of Frege's Constraint. In order to overcome this problem, one simple proposal that advocates of modes of presentation could put forward is this: to reject part (ii) of Frege's Constraint and to redefine modes of presentation as *things that satisfy part (i) of Frege's Constraint only*.<sup>10</sup>

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<sup>9</sup> In "Simple Sentences, Substitutions, and Mistaken Evaluations" [2002, pp. 9-11], Braun & Saul make a point wholly similar to mine here.

<sup>10</sup> The rejection of part (ii) of Frege's Constraint is reckoned "quite unclear" by Schiffer [2006, pp. 366-367], whereas it is endorsed by philosophers who conceive modes of presentation as *mental sentences* or as *mental files*. For example, *contra* part (ii) of this constraint, Braun [2006] maintains that a rational subject can have in her belief box two *different* mental sentences representing *contradictory* states of affairs (e.g. the sentences "Superman flies" and "Clark Kent does not fly"), even if the subject knows these states of affairs are contradictory. Similarly, Graeme Forbes [1990] and Braun & Saul [2002] claim that a subject

Part (i) of Frege's Constraint: A rational subject cannot simultaneously believe and disbelieve  $a$  to be  $F$  under the same mode of presentation.

Unfortunately for the advocates of modes of presentation, part (i) of Frege's Constraint is also subject to falsifications. This is what I am going to show in the next section.

## 2. Cases *contra* part (i) of Frege's Constraint

I shall present here cases *contra* part (i) of Frege's Constraint in which a subject holds two contradictory beliefs but fails to notice the contradiction, not because he mistakes one object for two objects presented in different ways (e.g. the individual Cicero presented as *Cicero* and as *Tully*), but because one of his contradictory beliefs is somehow *non-conscious*, viz. tacit or sub-conscious or unconscious or momentarily inaccessible.

Incidentally, several philosophers (e.g. those who conceive beliefs as occurrent judgments) deny that there are such things as non-conscious beliefs. On the other hand, intuitive reasons for the existence of these beliefs have been put forward:

One does not cease to believe all that one believes merely because one falls asleep or loses consciousness. [...]

Though one may have believed that  $p$  for twenty years, one has not believed it intermittently – one's belief state being interrupted daily by sleep – nor continuously, any more than if one has learnt that  $p$  and not forgotten it, one has known that  $p$  continuously. [Hacker 2004, p. 8]

At any rate, using material from the philosophical and psychological literature, I shall try to convince the reader that at least some of the cases presented in this section are intuitively and theoretically plausible.

### 2.1 A case with tacit belief

Jim and Ann are attending a talk of a distinguished mathematician. At a certain point in his talk, with the purpose of making fun of the audience, the mathematician writes on the blackboard " $13^2=159$ ". Perplexed, Ann asks Jim: " $13^2=159$ ?". Given the great authority of the mathematician, he offhandedly exclaims: "Sure!". It seems therefore correct to attribute to Jim the belief that  $13^2=159$ . On the other hand, Jim knows mathematics: if he stopped momentarily and calculated  $13^2$ , he would certainly discover that what the mathematician had written on the blackboard is false: indeed,  $13^2=169$ . So, besides the belief that  $13^2=159$ , Jim also holds the *tacit* belief that  $13^2 \neq 159$ .

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can maintain two *different* mental files which separately store *contradictory* pieces of information, even if the subject knows these two files are about the same object. I will come back to these issues in Ch. 4, Sections 3 and 4.

Nonetheless, Jim does not seem irrational: he fails to notice the contradiction between his two beliefs, given that one of them is tacit. Since there is no evidence that Jim attaches different modes of presentation to the objects these contradictory beliefs are about, we have to conclude that part (i) of Frege's Constraint is false.

*Reply from an advocate of modes of presentation:*

Reconsider

Positive Disquotatation: If a subject  $S$  has the disposition to sincerely, on reflection and competently assert or accept or assent to sentence ' $p$ ', which lacks indexical or pronominal devices or ambiguities, then  $S$  believes that  $p$ .

According to this principle, the assent to a sentence counts as an indication of belief only if it is a result of *reflection*. On the other hand, Jim does not seem to have sufficiently reflected before assenting to " $13^2=159$ ": otherwise his mathematical competence would have hindered him from doing so. Hence his assent to " $13^2=159$ " does not authorize the attribution to him of the belief that  $13^2=159$ , with the outcome that no falsification of part (i) of Frege's Constraint follows from the case under discussion.

Let us examine a possibly more convincing case against part (i) of Frege's Constraint.

## 2.2 A case of self-deception

Sam has believed for many years that his wife, Sally, would never have an affair. In the past, his evidence for this belief was quite good. Sally obviously adored him; she never displayed a sexual interest in another man [...]; she condemned extramarital sexual activity; she was secure, and happy with her family life; and so on. However, things recently began to change significantly. Sally is now arriving home late from work on the average of two nights a week; she frequently finds excuses to leave the house alone after dinner; and Sam has been informed by a close friend that Sally has been seen in the company of a certain Mr. Jones at a theater and a local lounge. Nevertheless, Sam continues to believe that Sally would never have an affair. Unfortunately, he is wrong. Her relationship with Jones is by no means platonic. [Mele 1987, pp. 131-132].

The case of Sam and Sally is a paradigmatic case of self-deception: Sam *deceives himself* in believing that Sally would never have an affair, given the significant evidence he possesses to believe the opposite. But what exactly is *self-deception*?

Traditionally, self-deception has been modeled on interpersonal deception, where  $A$  intentionally gets  $B$  to believe some proposition  $p$ , all the while knowing or believing truly  $\sim p$ . Such deception is intentional and requires the deceiver to know or believe  $\sim p$  and the deceived to believe  $p$ . One reason for thinking self-deception is analogous to interpersonal deception of this sort is that it helps us to

distinguish self-deception from mere error, since the acquisition and maintenance of the false belief is intentional not accidental. If self-deception is properly modeled on such interpersonal deception, self-deceivers intentionally get themselves to believe  $p$ , all the while knowing or believing truly  $\sim p$ . On this traditional model, then, self-deceivers apparently must (a) hold contradictory beliefs, and (b) intentionally get themselves to hold a belief they know or believe truly to be false. [Stanford Encyclopaedia, entry “Self-Deception”]

Call this traditional model of self-deception *Contradictory-Belief Account*.<sup>11</sup> Taking it for granted, it seems correct to describe Sam as having a *divided mind*, viz. a mind divided into (at least) two components: with one, which plays the role of the deceiver, he knows and so believes that Sally would have an affair; with the other, which plays the role of the deceived, he is “persuaded” by the former component to believe that Sally would never have an affair. Plausibly, Sam’s belief that Sally would have an affair, as well as the process of deceiving whereby Sam is led to believe the contrary, *does not take place at a wholly conscious level*. For this reason, Sam fails to notice the contradiction between his two beliefs about Sally. This failure allows him to simultaneously hold both beliefs without being irrational.

Sam should not also be suspected of being irrational because of his self-deceiving. He could in fact have good reasons for believing that Sally would never have an affair (e.g. if he does not have incontrovertible evidence of Sally’s infidelity and he is still very much in love with her, self-deceiving may allow him to avoid the suffering that an acceptance of her infidelity would provoke in him).

So, we may affirm that Sam rationally believes and disbelieves Sally to have an affair. He plausibly does so under the same mode of presentation, with the result that part (i) of Frege’s Constraint (p. 38) is falsified.<sup>12</sup>

*Reply from an advocate of modes of presentation:*

Part (i) of Frege’s Constraint can be safeguarded by rejecting the Contradictory-Belief Account and replacing it with some different account which does not require the attribution to Sam of two *contradictory* beliefs. Here below are two examples of these accounts: the first denies that Sam believes that Sally would never have an affair; the second denies his believing the opposite.

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<sup>11</sup> This model is adopted e.g. by Donald Davidson [2004a, p. 208].

<sup>12</sup> My claim that Sam is rational seems to contrast with the common view, upheld e.g. by Davidson, according to which self-deceivers are *irrational*. In my opinion, this contrast is only ostensible: the meaning that Davison assigns to the word ‘irrational’ differs from the one that I assign to it. For Davidson [2004d, p. 218], a subject is irrational if he simultaneously believes two contradictory things, that  $p$  and that  $\sim p$ . On the other hand, for me (as for Salmon and most Russellian philosophers) a subject (like Sam) who simultaneously believes contradictory things is not necessarily irrational; he is irrational if he believes trivially absurd things like *that a is and is not F* or *that a is not identical to itself* or *that a is more/less F than itself* (which, nevertheless, is not the case of Sam); also, he is irrational if he has no reason for his beliefs (again, this is not the case of Sam). It is also interesting to note that, according to Davidson [2004c, p. 169], “the irrational is not merely the non-rational, which lies outside the ambit of the rational; irrationality is a failure within the house of reason”. So, in a sense, Sam is *rational* also for Davidson.

*Wishful-Thinking Account:* Sam self-deceives in claiming that Sally would never have an affair. So, his claim is not sincere, to the effect that it cannot count as an indication of his believing that Sally would never have an affair, coherently with Positive Disquotation (p. 39). At most, Sam's claim may count as proof of his *wishful thinking* that Sally would never have an affair (a wish motivated e.g. by his desire of avoiding the suffering that an acceptance of Sally's infidelity would provoke in him). Wishful thinking, however, does not entail belief.<sup>13</sup>

*Entertaining-Suspicion Account:* Sam has always believed that Sally would never have an affair and he still believes so, even though he now has strong suspicions that Sally has an affair. Entertaining suspicions does not however entail belief. We are not therefore authorized to attribute to Sam the belief that Sally would have an affair.

It is not evident to me that the Wishful-Thinking or the Entertaining-Suspicion Account is more convincing than the Contradictory-Belief Account. However, since I have no knockdown argument for the Contradictory-Belief Account and against the two competing accounts and since, in addition, my previous defence of Sam's rationality might have not wholly convinced the reader, I shall give up taking the case of Sam and Sally as a conclusive counter-example to part (i) of Frege's Constraint. Let us then cast about for other possible counter-examples to part (i) of this constraint.

### 2.3 The case of the smoker

In her articles "Rationality and Believing the Impossible" and "Some Revisionary Proposals about Belief and Believing", Ruth Barcan Marcus presents cases where a subject *verbally behaves in one way* (viz. he claims a certain thing) and *non-verbally behaves in the opposite way* (viz. he behaves as if he has no disposition to claim such a thing, or he even has the disposition to claim the opposite).

One of the cases presented by Barcan Marcus has as a protagonist a subject, say John, who sincerely avows that smoking is harmful, he desires to preserve health, but he smokes and does nothing to stop. So, John manifests two conflicting behaviours: the verbal behaviour of avowing that smoking is harmful and the non-verbal behaviour of smoking. Using the modified version of Positive Disquotation originating with Barcan Marcus [1990, p. 140] and reported on p. 42, we can derive John's belief that smoking is harmful from his verbal behaviour and his belief that, after all, smoking is not so harmful from his non-verbal behaviour. The former belief is conscious (since John has the disposition to affirm "I believe that smoking is harmful"), whereas the latter belief is presumably *not wholly conscious*. Two different modes of presentation are not attached

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<sup>13</sup> In *An Essay on Belief and Acceptance* [1992, p. 149], L. Jonathan Cohen seems to embrace the Wishful-Thinking Account. On Cohen's view, Sam believes that his wife would have an affair, while he just *accepts* (without believing) that Sally would never have an affair, prompted (in this acceptance) by his desire that she not have an affair. On the other hand, in some passages of his essay, Cohen amends his own view and he finally seems to embrace the Contradictory-Belief Account: "the [self-deceiving] belief is somehow suppressed, not eliminated. It remains, but not in consciousness" [ibid., p. 142]. A clear rejection of the "self-deceiving" belief, coherent with the Wishful-Thinking Account, can instead be obtained by endorsing Frank Ramsey's [1931, pp. 159-190] account of belief, according to which, roughly, to believe that *p* is a disposition to bet that *p*: since Sam is presumably not prepared to bet that Sally would never have an affair, he will not believe that Sally would never have an affair.

by John to the state of affairs of the smoking's being harmful. Part (i) of Frege's Constraint seems to be falsified.

Modified Positive Disquotation: If a subject *S* is disposed (sincerely and on reflection) to verbally or non-verbally act as if the state of affairs *p* obtains, then *S* believes that *p*.

*Reply from an advocate of modes of presentation:*

*Contra* the smoker case, it could be argued that verbal and non-verbal behaviours do not carry the same weight for deciding what a subject believes: the verbal behaviour actually carries more weight (since e.g. it allows a more accurate identification of a belief). It should additionally be considered that the Modified Positive Disquotation undergoes the following counter-example about non-verbal behaviour:

[...] one may have a tendency or proneness to act as if it were true that *p* without having any belief in the matter at all. Carnivores act as if it were true that proteins are nutritious, and herbivores act as if it were true that vegetable vitamins are beneficial. But it would be absurd to ascribe any such beliefs to [them]. [Hacker 2004, p. 21]

On the basis of these considerations, an advocate of modes of presentation could maintain that John has the belief that smoking is harmful without having the opposite belief, to the effect that no falsification of part (i) of Frege's Constraint will follow from the smoker case.

On the other hand, if John's smoking is not prompted by the belief that smoking is not harmful, what would prompt such behaviour? A number of alternative explanations are available: John is affected by weakness of will; or he is affected by an overpowering desire for smoking; or he thinks that preserving health is not so important for him; etc.

*My response:*

The smoker case could be modified so as to bypass the aforesaid reply and to "restore" both contradictory beliefs by supposing that: John is not affected by weakness of will; he is not overpowered by desire for smoking; he thinks that preserving health is very important for him; etc. If this list of assumptions is sufficiently rich, John's believing that smoking is not harmful will become the only available explanation for his smoking.

*Further reply from an advocate of modes of presentation:*

Once the smoker case is supplemented with these assumptions, it is especially hard to see how John can fail to notice the clash between his smoking and his declaration against smoking. Now, if John noticed it but he made nothing for its elimination, then the conclusion that he is irrational would follow. Of course, no falsification of part (i) of Frege's Constraint can be derived from the fact that an *irrational* subject believes and disbelieves something under the same mode of presentation.

*My response:*

I acknowledge that at least in certain circumstances (e.g. when someone asks John why he smokes if he thinks that smoking is dangerous) John must notice the clash between his verbal and non-verbal behaviours. We can imagine that in those circumstances, John rationally feels the need for rejecting one of his contradictory beliefs – say, the belief that smoking is not harmful. We could suppose, on the other hand, that instead of rejecting such a belief, John finally prefers to suppress the conflict provoked by his holding the two contradictory beliefs by “pushing” his belief that smoking is harmful to a *subconscious* level. In this way, he could *rationally* resume smoking, prompted by his belief that, after all, smoking is not so harmful.

Perhaps, you, the reader, are not persuaded by my defence of John’s rationality. Let me present, then, other cases against part (i) of Frege’s Constraint.

#### **2.4 The Implicit Association Test case<sup>14</sup>**

Many Americans believe they are not prejudiced. Now a new test provides powerful evidence that a majority of [them] really are.

At 4 o’ clock on a recent Wednesday afternoon, a 34-year-old white woman sat down in her Washington office to take a psychological test. Her office decor attested to her passion for civil rights – as a senior activist at a national gay rights organization, and as a lesbian herself, fighting bias and discrimination is what gets her out of bed every morning. A rainbow flag rested in a mug on her desk.

The woman brought up a test on her computer from a Harvard University web site. It was really very simple: All it asked her to do was distinguish between a series of black and white faces. When she saw a black face she was to hit a key on the left, when she saw a white face she was to hit a key on the right. Next, she was asked to distinguish between a series of positive and negative words. Words such as "glorious" and "wonderful" required a left key, words such as "nasty" and "awful" required a right key. The test remained simple when two categories were combined: The activist hit the left key if she saw either a white face or a positive word, and hit the right key if she saw either a black face or a negative word.

Then the groupings were reversed. The woman's index fingers hovered over her keyboard. The test now required her to group black faces with positive words, and white faces with negative words. She leaned forward intently. She made no mistakes, but it took her longer to correctly sort the words and images.

Her result appeared on the screen, and the activist became very silent. The test found she had a bias for whites over blacks.

"It surprises me I have any preferences at all", she said. "By the work I do, by my education, my background. I'm progressive, and I think I have no bias. Being a minority myself, I don't feel I should or would have biases."

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<sup>14</sup> This case was suggested to me by Christine Clavien.

Although the activist had initially agreed to be identified, she [...] requested anonymity after seeing [her] results. [“See No Bias”, by Shankar Vedantam, *The Washington Post*, January 23, 2005]

Other people undergoing the *Implicit Association Test* have obtained the same result as the gay activist and have manifested similar reactions:

“I did the race test, and despite my egalitarian views and belief that I treated everybody equally, I had a much harder time putting the black faces with good than putting the white faces with good,” says Prof. Nosek, of the University of Virginia.

“That fact was so stunning that I began to wonder if I was lying to myself, was I lying to others? It was a humbling experience, and motivated me to assess my own attitudes.” [“Are you racist? The test that claims to know”, by Emily Wilkins, *BBC News*, April 20, 2005]

Given their strong and keen declarations against racism, it seems inappropriate to accuse the gay activist and Professor Nosek of lying. Instead, it seems more plausible to ascribe to them the conscious belief that blacks are as good as whites and the *unconscious* belief that blacks are not as good as whites. Since the gay activist and Prof. Nosek are rational people and they do not attach different modes of presentation to the people/things their contradictory beliefs are about, we might conclude that part (i) of Frege’s Constraint is falsified.

## 2.5 The case of Dr. Fredric Schiffer

Dr. Fredric Schiffer, brother of the philosopher Stephen, is an esteemed Harvard psychiatrist and researcher. He is author of the book *Of Two Minds*, in which he argues that all people (and not just those who suffer from multiple personality syndrome or other psychological disorders) have two minds, one mature and stable and the other emotional and impulsive, each associated with a cerebral hemisphere.

As evidence in favour of his theory, Dr. Schiffer presents in his book a number of cases, one of which casts him as protagonist. He recounts that when he was at the beginning of his career, he was invited to undergo psychological therapy as a part of his psychiatric training. During the therapy, it unexpectedly happened that something emerged concerning his relationship with his father. Whereas this relationship is described in his book as “in many ways [...] painful and strained” [F. Schiffer 1998, p. xix], by undergoing therapy, Dr. Schiffer discovered that one mental component of himself, which had remained inaccessible until that moment, sincerely loved and admired his father.

So what are my true feelings about my father? I think it depends on which part of me I focus on. [Ibid., p. xx]

Even if you, the reader, were not entirely convinced by Dr. Schiffer’s original theory of two minds, you may however concede that, before undergoing the therapy, Dr.

Schiffer *unconsciously* believed that he loved his father, holding at the same time the conscious belief that he did not love his father.

There can be no doubt that Dr. Schiffer is a rational and intelligent person (remember that his decision to undergo psychological therapy was entirely motivated by his desire for career advancement). Since two different modes of presentation are not attached by Dr. Schiffer to the things his contradictory beliefs are about, we shall deduce from Dr. Schiffer case that part (i) of Frege's Constraint is false.

## 2.6 A case involving a slip

Suppose that yesterday you read an email about a bridge closure. You'll need to commute on an alternate route for a month. Yet here you are today, governed by habit, driving straight toward the closed bridge. In a moment, you will remember that the bridge is closed, but you haven't yet.

Now normally, I think we'd say the following things about you: You've *forgotten* that the bridge is closed. And you *know* the bridge is closed. Consider what you'd say to a passenger, for example, the moment after you remember: "Whoops! I forgot the bridge was closed"; "Oh, that was dumb of me; I *knew* the bridge was closed".

But do you *believe* the bridge is closed, as you drive blithely toward it? [Eric Schwitzgebel, "The Splintered Mind: Reflections in Philosophy of Psychology, Broadly Construed", blog]

This case has been proposed by Eric Schwitzgebel with the intention of showing that knowledge does not entail belief: you know that the bridge is closed even though you do not believe it.

In my opinion, this case should more plausibly be taken to show something else. Before reading the email, you believe that the bridge is open. But after reading it, you discover that the bridge is now closed. So, you "cancel" your belief and replace it with the new belief that the bridge is closed. However something goes wrong with the operation of cancellation: your old-aged belief that the bridge is open remains stored somewhere in your mind. As a result, this morning you get up and, prompted by that old belief, you drive toward the bridge as usual. What about the belief you acquired yesterday that the bridge is closed? This belief is also stored in your mind, but has become temporarily inaccessible; it will suddenly emerge while you are driving towards the bridge before reaching it.<sup>15</sup>

Summing up, this morning, before reaching the bridge, you have both the belief that the bridge is open and the belief that the bridge is not open: the former prompts you to drive towards the bridge; the latter is first inaccessible and then suddenly emerges leading you to change your route. Since you are certainly rational and you do not attach

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<sup>15</sup> It is important to suppose that the belief that the bridge is closed emerges *before* you reach the bridge: this excludes the possibility that you *completely cancelled* such a belief and later reacquired it as an effect of your seeing the bridge closed. We have to exclude this possibility because otherwise you would not hold the two contradictory beliefs about the bridge *at the same time*, with the result that no falsification of part (i) of Frege's Constraint would follow from the case under discussion.

different modes of presentation to the state of affairs of the bridge's being open, a falsification of part (i) of Frege's Constraint (p. 38) follows from this case.

## 2.7 Re-definition of modes of presentation

At least the case of Dr. Schiffer and the bridge case provide, in my opinion, both good reasons for believing in the existence of unconscious or temporarily inaccessible beliefs and convincing counter-examples to part (i) of Frege's Constraint. As such, they pose a problem to the definition of modes of presentation in terms of part (i) of Frege's Constraint.

On the other hand, advocates of modes of presentation who persist in denying the existence of non-conscious beliefs will reject these cases. And even those who accept non-conscious beliefs could manage to bypass the difficulties posed by these cases by simply confining the application of part (i) of Frege's Constraint to conscious beliefs. Accordingly, modes of presentation will be redefined as *things that satisfy a constraint like this*:

FC1: A rational subject cannot simultaneously and *consciously* believe and disbelieve *a* to be *F* under the same mode of presentation.

Although no case presented so far falsifies FC1, further cases will be devised in the next section in which FC1 emerges as false.

## 3. Cases *contra* part (i) of Frege's Constraint confined to conscious beliefs

Reconsider the case of a rational person who consciously believes one thing and unconsciously believes the opposite. Suppose that by undergoing psychological therapy or some special test, her unconscious belief emerges (i.e. becomes conscious) and the person consequently discovers she holds two contradictory beliefs. What could her reaction be after such a discovery?

Different options are available. (a) The person instantaneously rejects one of her contradictory beliefs. Or (b) she "decreases" the "degree" of her belief and disbelief at 50%, with the effect of suspending judgment on what she formerly believed and disbelieved. Or (c) she is uncertain as to what belief she should reject and, for a while, she cannot do anything better than keeping both beliefs; this provokes in her an *inner conflict*. Or (d) being uncertain as to what belief she should reject and "preferring" to avoid an annoying inner conflict, she "pushes" one of her contradictory beliefs to a subconscious level.

Options (c) and (d) yield falsifications of part (i) of Frege's Constraint. An example of (d) is the modified version of the smoker case proposed on p. 43, in which a subject suppresses the "conflict" provoked by his holding the contradictory beliefs that smoking is harmful and that smoking is not harmful by "pushing" the former belief to a

subconscious level. An example of (c), able to falsify not only part (i) of Frege's Constraint but also the new constraint FC1 is the *judge case*.

### 3.1 The judge case

I don't doubt for a moment that you are good, hard-working people who have done what you did to help your families. Unfortunately for you, you committed a violation of federal law. [Mark W. Bennett, a federal judge, to illegal immigrants sentenced to prison terms in Iowa, "The New York Times", May 24, 2008]

Imagine the following case. Mr. Justice Bennett must pass judgment on a person, Jack, who is guilty of a crime. For that crime the law provides a heavy sentence and Mr. Bennett is used to enforcing the law very rigorously. He has consequently decided to condemn Jack.

On the other hand, Mr. Bennett knows Jack and the sad story of his unlucky life. Since he is a sensitive person in addition to a judge who takes his profession very seriously, he humanely thinks that Jack should not be condemned. Speaking to a friend before the sentence, he confesses: "As a judge, I will have to condemn Jack: this is what the law provides for this sort of crime and I don't want to neglect my duties. But knowing Jack's story well, I humanely think he should not be condemned".

Mr. Bennett cannot be blamed of being irrational: although he has the disposition to assert, as a judge, "Jack should be condemned" and, humanely, "Jack should not be condemned", neither as a judge nor as a humane person has he the disposition to assert the self-contradictory sentence "Jack should be condemned and Jack should not be condemned".

So, Mr. Bennett rationally and consciously believes and disbelieves Jack to have to be condemned. He plausibly does so under the same mode of presentation, *contra* FC1 (p. 46).

*Reply from an advocate of modes of presentation:*

The judge case could be countered by maintaining that Mr. Bennett does not really believe and disbelieve that Jack should be condemned; rather, he believes *that Jack should be condemned in the eyes of the law* and he disbelieves *that Jack should be condemned in the eyes of morality*. From the fact that Jack believes and disbelieves two *different* things, no falsification of FC1 follows.

*My response:*

I may agree with my opponent that Mr. Bennett has the belief and the disbelief reported in (29) and (30). On the other hand, it seems to me intuitively correct to infer from (29) and (30) the sentences (31) and (32) respectively. These sentences yield a falsification of FC1.

(29) Mr. Bennett believes that Jack should be condemned in the eyes of the law.

- (30) Mr. Bennett disbelieves that Jack should be condemned in the eyes of morality.
- (31) Mr. Bennett believes that Jack should be condemned.
- (32) Mr. Bennett disbelieves that Jack should be condemned.

Maybe your intuitions about the moves from (29) and (30) to (31) and (32) differ from mine. No matter: in the next section, I shall propose a different version of the judge case in which Mr. Bennett is required to believe and disbelieve the *same* thing. The new version crucially involves an inner conflict.

### 3.2 Second version of the judge case

Suppose that Mr. Justice Bennett is made acquainted with previous judicial cases similar to Jack's where the judge exceptionally suggested an interpretation of the law which avoided conviction of the accused. This new information makes Mr. Bennett dubious as to what to do: on the basis of a strict and rigorous interpretation of the law, he still believes that Jack should be condemned, whereas by appealing to humanitarian considerations and previous similar judgments, he believes that Jack should (and could) not be condemned. This situation provokes in Mr. Bennett an *inner conflict*. His conflict precisely originates in the following facts: on one hand, Mr. Bennett does not know whether to condemn or not to condemn Jack, for he does not know which, between his beliefs reported in (31) and (32), is the most warranted; on the other hand, he is also aware that a decision about Jack's case, based on his best judgment between those reported in (31) and (32) must be made by a given time.

- (31) Mr. Bennett believes that Jack should be condemned.
- (32) Mr. Bennett disbelieves that Jack should be condemned.

In what follows, I would like to show that, as a presupposition of his undergoing an inner conflict, Mr. Bennett *must believe and disbelieve the same thing*, viz. *that Jack should be condemned*. I will show this, starting from an entirely intuitive account of disagreement, according to which: two people genuinely disagree *only if* one sincerely affirms what the other sincerely denies, and therefore (by Positive Disquotation, p. 39) *only if* one believes what the other disbelieves. Since an interpersonal conflict is a kind of disagreement, when two people are in conflict with one another, they must believe two opposite (contradictory) things. At this point, by modelling inner conflict on interpersonal conflict (which seems a reasonable manoeuvre), we arrive at the conclusion that a person is in conflict with himself *only if he believes and disbelieves the same thing*. In the judge case, the most plausible candidate for such a thing is *that Jack should be condemned*.

Incidentally, in the article "Paradoxes of Irrationality" [2004c, pp. 176-177], Donald Davidson rapidly faces the question of inner conflict. Although he initially seems to disagree with the view defended here that inner conflict essentially requires holding two *contradictory* beliefs, he finally arrives at the conclusion that inconsistencies (of judgments) are involved in genuine cases of inner conflict:

[...] straightforward cases of conflict [are] cases in which an agent has good reasons both for doing, and for refraining from, a course of action; or, what comes to the same thing, good reasons for doing each of the two mutually exclusive things. [Ibid., p. 176]

[...] we speak of conflict only when the pros and the cons are weighty and close to being in balance. [Ibid., p. 177]

A person who appreciates the fact that he has good reasons both for and against an action should not be thought to be entertaining a contradiction. [Ibid., p. 176]

Pure internal inconsistency enters only if I also hold – as in fact I do – that I ought to act on my own best judgment, what I judge best or obligatory, everything considered. [Ibid., p. 177]

Let us now return to the judge case. I have shown that, because of his having an inner conflict, Mr. Bennett believes and disbelieves that Jack should be condemned. Both his belief and disbelief are *conscious* and they are about things presented to Mr. Bennett under the same modes of presentation. Hence the new constraint FC1 (p. 46) is falsified.

*Reply from an advocate of modes of presentation:*

Even if Mr. Bennett believes and disbelieves the *same* thing, FC1 can be safeguarded by maintaining that the belief that Jack should be condemned and the belief that Jack should not be condemned are *borne by two different “subjects”*: taking into account that Mr. Bennett asserts “Jack should be condemned” *from a strictly judicial point of view* and asserts “Jack should not be condemned” *humanely*, these “subjects” could be two mental components of Mr. Bennett, say *Bennett-as-a-judge* and *Bennett-as-a-humane-person*. Of course, no falsification of FC1 follows from the fact that *different* subjects consciously and simultaneously believe and disbelieve one thing under the same mode of presentation.

*My response:*

I agree with my opponent regarding the truth of (33) and (34). On the other hand, it seems to me that from (33) and (34) sentences (31) and (32) respectively follow, yielding a falsification of FC1.

- (31) Mr. Bennett believes that Jack should be condemned.
- (32) Mr. Bennett disbelieves that Jack should be condemned.
  
- (33) Mr. Bennett as a judge believes that Jack should be condemned.
- (34) Mr. Bennett as humane person disbelieves that Jack should be condemned.

The correctness of the moves from (33) and (34) to respectively (31) and (32) can be defended on the grounds of the following theses:

(T5) A sentence of the form ‘*a*’ + *Adjectival Phrase* + ‘is *F*’ entails ‘*a* is *F*’.

(T6) If a part of a subject performs a certain act, then the (“whole”) subject can be correctly said to perform such an act.

The moves from (33) to (31) and from (34) to (32) are instantiations of the theses (T5) and (T6), which both seem intuitively plausible theses: (T5) allows unexceptionable entailments such as “If the philosopher Socrates runs, then Socrates runs”; (T6) justifies entailments like “If the flat of Mary’s hand touches a certain body, then (the “whole”) Mary touches that body” or “If Mr.-Bennett-as-a-judge performs the mental act of (dis)believing that Jack should be condemned, then (the “whole”) Mr. Bennett (dis)believes that Jack should be condemned”.

I can find only one intuitive counterexample to (T6): the case of a subject who suffers from a multiple personality syndrome. From the fact that one of his *personae* believes that *p*, it does not seem to follow that the (“whole”) subject believes that *p*, for the simple reason that, strictly speaking, a subject suffering from a multiple personality syndrome is not “whole”/“unitary”. However, this is not the case of Mr. Bennett, who does not suffer from such a syndrome; on the contrary, he is a perfectly rational person. Thus thesis (T6), as well as (T5), successfully applies to the judge case, justifying the moves from (33) and (34) to respectively (31) and (32).

*A further reply from an advocate of modes of presentation:*

*Contra* the judge case, alternative accounts for the inner conflict could be put forward in which a subject in conflict with himself *does not hold contradictory beliefs*, with the result that no falsification of FC1 will follow from this case. Here below are two alternative accounts.

*Conflict-of-Evidence Account:* A person is in conflict with himself when he is unable to decide whether to believe that *p* or to believe that  $\sim p$ , since he reckons to have equally good reasons (evidences) for believing both. Given this account, Mr. Bennett’s inner conflict would be due to his entertaining the beliefs reported in (35) and (36), rather than those reported in (31) and (32). Unlike the latter, the former do *not* have contradictory contents.

(35) Mr. Bennett believes that there are good reasons to believe that Jack should be condemned.

(36) Mr. Bennett believes that there are (equally) good reasons to believe that Jack should not be condemned.

*Partial-Belief Account:* To have an inner conflict does not entail believing and disbelieving (at more than 50%) that *p*: having an *inclination to believe and disbelieve* it, or having a belief and a disbelief that *p* at 50%, is what is required to give rise to a conflict. Now, from the fact that Mr. Bennett believes and disbelieves at 50% that Jack should be condemned, no falsification of FC1 follows.<sup>16</sup>

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<sup>16</sup> The Partial-Belief Account could possibly be maintained on the grounds of Ramsey’s conception of belief (according to which, roughly, to believe that *p* is a disposition to bet that *p*): since Mr. Bennett is not

*My response:*

These two additional accounts (which are actually compatible and combinable) seem to me defective in multiple respects.

First, they do not offer a straightforward explanation of a case in which a subject, *S*, who consciously believed and *unconsciously* disbelieved that *p*, suddenly comes to have an inner conflict as a result of the surfacing of his formerly unconscious belief that  $\sim p$ . An advocate of the Conflict-of-Evidence Account will explain *S*'s inner conflict by maintaining that *S* suddenly loses his belief and disbelief that *p*, "shifting" them into respectively the belief *that there are good reasons to believe that p* and the belief *that there are also good reasons to believe that  $\sim p$* . This explanation, on the other hand, is more tortuous than the one which simply attributes the conflict to *S*'s believing and disbelieving at a conscious level that *p*.

Second, within this very same case (in which a formerly unconscious belief comes into consciousness) both the Partial-Belief Account and the Conflict-of-Evidence Account renounce the possibility of viewing *S*'s "decreasing" at 50% the degree of his belief and disbelief that *p* as a strategy to *defuse the conflict* through a suspension of judgment on that *p*. More generally, the two accounts in question do not distinguish cases of inner conflict from cases in which the subject believes and disbelieves at 50% that *p* simply because he suspends judgment on that *p* (like e.g. in the case of a subject on the point of tossing a coin: this subject believes and disbelieves at 50% that she will get a head; nonetheless, he does not feel any conflict).

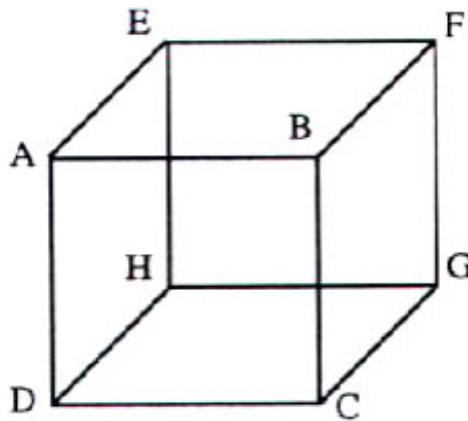
Finally, both the Partial-Belief Account and the Conflict-of-Evidence Account violate Positive Disquotations: they deny that Mr. Bennett believes and disbelieves that Jack should be condemned, even though he presumably has in certain circumstances the disposition to assert sincerely and on reflection "Jack should be condemned", as well as in other circumstances he has such a disposition toward "Jack should not be condemned".

Let us examine now other cases against constraint FC1 (p. 46), in which no inner conflict is at stake.

### **3.3 The Necker cube case**

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prepared to bet either on the truth or on the falsity of both propositions *that Jack should be condemned* and *that Jack should not be condemned*, he believes and disbelieves these propositions at 50%.



The figure above represents the famous cube devised in 1832 by the Swiss crystallographer Luis Albert Necker. The particularity of the *Necker cube* rests on its being observable from two different *perspectives*: from one, the ABCD face seems to be in front; from the other, the EFGH face seems to be so. Imagine that, looking at the cube from the former perspective, Sally sincerely claims: “The ABCD face seems to be in front”. Instead, looking at the cube from the latter perspective, she sincerely claims: “The ABCD face does not seem to be in front”. Using Positive Disquotation (p. 39), we infer that Sally believes and disbelieves that the ABCD face seems to be in front.

Intuitively, the two perspectives are not modes of presentation. In fact, we can suppose that when Sally changes perspective, the way in which the Necker cube is presented to her does not change: the position of the cube, the position of Sally in relationship to the cube, the luminosity of the room containing both, etc. remain the same.

Notice that Sally cannot even be suspected of irrationality: any of us in her place would come to believe the very same things. So, Sally rationally and consciously believes and disbelieves the ABCD face to appear to be in front under the same mode of presentation, *contra* FC1.

*Reply from an advocate of modes of presentation:*

In response to the Necker cube case, it could be maintained that Sally *intermittently* believes that the ABCD face seems to be in front and that the ABCD face does not seem to be in front, viz. she acquires the former belief whenever the ABCD face appears to her to be in front, while she loses it and acquires the opposite belief whenever the EFGH face appears to her to be in front. Consequently, she *never holds both contradictory beliefs simultaneously*. No falsification of FC1 follows from the fact that a subject holds two contradictory beliefs at different times.

Although I have no knock-down argument against this reply, my impression is that Sally entertains both contradictory beliefs simultaneously, even though they are not “active” at the same time. The next two sections will illustrate two, probably more convincing, cases against FC1 (p. 46), proposed by the unidentified author of the article “Belief Content and Principles of Rationality”.

### 3.4 The case of the eliminative materialist

It is interesting to consider the psychology of those philosophers and scientists who accept theories according to which large parts of common sense are false. Consider eliminativists, for instance, who mistakenly believe that we have no beliefs. [...] does Paul, an eliminative materialist, ever believe that his wife Patricia just said that little Penelope needs to take a bath – even though as an eliminativist he is committed to the claim that she neither believed nor said any such thing? Could his theoretical convictions be so strong as to wipe out all the nearly automatically generated beliefs about beliefs? If not, so he does have the beliefs about beliefs, wouldn't that mean that there are highly intelligent people with rationally held yet obviously inconsistent beliefs? [Unidentified 2002]

The considerations contained in this passage can be used to construct a counter-example to constraint FC1 (p. 46). To this end, suppose that eliminative materialism is false (*eliminative materialism* is the theory according to which certain types of mental entities that commonsense takes for granted, such as beliefs, desires and the subjective sensation of pain, do not exist). Imagine that, speaking to a friend, Professor Paul Churchland says: "I can't buy a motorcycle. Patricia believes that they are too dangerous". According to Positive Disquotation (p. 39), report (37) will be correct. On the other hand, Prof. Churchland is the champion of eliminative materialism; hence report (38) must also be correct.<sup>17</sup>

- (37) Paul believes that Pat believes that motorcycles are dangerous.
- (38) Paul disbelieves that Pat believes that motorcycles are dangerous.

According to the (unidentified) author of the article "Belief Content and Principles of Rationality", two different modes of presentation are not available in this case:

Paul believes and disbelieves [Pat to believe that motorcycles are dangerous] *under the very same mode of presentation*. He hasn't been confused into thinking that [(39)] is ambiguous. He doesn't dissent from and assent to the same sentence because he understands it as expressing different thoughts. [Ibid.]

- (39) Pat believes that motorcycles are dangerous.

Paul cannot also be blamed for being irrational, since

[...] he won't assent to 'Patricia believes that motorcycles are dangerous and it's not the case that Patricia believes that motorcycles are dangerous'. [...] He employs both his inconsistent beliefs in separate episodes of conscious reasoning. [...] But he won't assert and deny, *in one breath*, the same proposition under the same mode of presentation. [Ibid.]

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<sup>17</sup> Notice that reports (37) and (38) can be correct only if eliminative materialism is false (this is why I initially supposed that this theory was false).

So, Paul, a rational and intelligent person, comes to consciously believe (from the “perspective” of common sense) and disbelieve (from the “perspective” of eliminativism) Pat to believe that motorcycles are dangerous under the same mode of presentation, *contra* constraint FC1 (p. 46).

*Reply from an advocate of modes of presentation:*

Taking for granted Positive Disquotation, Paul’s assertion of (39) counts as evidence of the correctness of (37) only if this assertion is made (j) sincerely, (jj) on reflection and (jjj) with the goal of conveying the same proposition literally expressed by (39). On the other hand, conditions (j)-(jjj) are not simultaneously satisfied in the case of the eliminative materialist. In fact, if (jj) Paul asserted (39) on reflection, he would presumably realize that the truth of (39) is incompatible with his convictions about eliminative materialism. So, either ( $\sim$ j) his assertion would be insincere; or ( $\sim$ jjj) it would convey a proposition different from the one literally expressed (39), say the proposition *that Patricia seems like she believed that motorcycles are dangerous*.

(37) Paul believes that Pat believes that motorcycles are dangerous.

(39) Pat believes that motorcycles are dangerous.

*My response:*

I might agree with this reply. On the other hand, I should notice that even if report (37) (taken to convey the proposition that it literally express) was not inferable from Paul’s assertion of (39) using Positive Disquotation, the correctness of (37) could however be maintained on the basis of other reasons, for example the following:

Patricia says[ to Paul], “You can’t get a motorcycle! Those things are horribly dangerous!” Paul says, “All right, all right. I didn’t know you thought that”. Paul now returns the motorcycle he just bought partly *because he believes that Patricia believes that motorcycles are dangerous*. [Ibid.]

### **3.5 The case of the colour error theorist**

Here is another case presented in the article “Belief Content and Principles of Rationality”. The protagonist of the new case is Rob, a *colour error theorist* (i.e. someone who maintains that our ordinary judgments ascribing colour to objects are all false: the fact that material objects appear to have colour is exclusively explained by appealing to surface reflectance properties, the nature of light, the neurophysiology of perceivers, etc.).<sup>18</sup>

Now suppose that from childhood, Rob believed that fire engines are red. However, after his studies in physics, he has become a colour error theorist and he now believes that ordinary things, e.g. fire engines, are neither red nor any other colour. From this should we conclude that nowadays Rob does not believe anymore that fire engines

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<sup>18</sup> This characterisation of the colour error theory is from Jonathan Ellis [2006].

are red, and that e.g. when he looks at a red object, he does not acquire the belief that such an object is red? This conclusion is judged incorrect by the author of “Belief Content and Principles of Rationality”. According to him/her, it is more reasonable to suppose that after looking at a red object, say a pen, Rob naturally, automatically acquires the *ordinary* belief that the pen is red, holding at the same time the *highly theoretical* belief that the pen is not red (and of no colour at all).

So, Rob believes (from the “perspective” of common sense) that fire engines are red, while he believes (from the “perspective” of colour error theory) that fire engines are not red. These beliefs are about the same property of Redness and this property is presented to him in one way, to the effect that the proposition *that fire engines are red* will be presented to him in only one way (even though Rob evaluates this proposition from different “perspectives”). So, Rob rationally and consciously believes and disbelieves fire engines to be red under the same mode of presentation, *contra* FC1 (p. 46).

### 3.6 Re-definition of modes of presentation

The judge case, the Necker cube case, the case of the eliminative materialist and the one of the colour error theorist falsify constraint FC1, consequently posing a problem to the definition of modes of presentation in terms of this constraint.

In an attempt to solve the problem, one might observe that in these cases (or at least in some of them), the subject has the disposition to assert sincerely two contradictory sentences only in *different circumstances*; e.g. in the Necker cube case, Sally has the disposition to assert “The ABCD face seems to be in front” in circumstances which differ from those where she has the disposition to assert “The ABCD face does not seem to be in front”. In light of this, an advocate of modes of presentation could maintain that Sally (not only asserts and denies, but also) believes and disbelieves that the ABCD face seems to be in front in different circumstances, whereas in no circumstance does Sally hold both contradictory beliefs (or make both contradictory assertions). If so, the Necker cube case (as well as the other abovementioned cases) does not endanger the definition of modes of presentation in terms of the following constraint: *a rational subject cannot believe and disbelieve consciously and in the same circumstance something under the same mode of presentation*.

On the other hand, how should the expression ‘believing in a circumstance’ be exactly meant: as that the *very same* belief is held *relative* to a certain circumstance (but not relative to another); or as that some parameter of the circumstance “enters”/“modifies” the belief content, to the effect that the subject will believe and disbelieve two different things; or what else? Also, what parameter of the circumstance would exactly be relevant here? In the present section, I shall consider a possible candidate for this parameter, *perspectives*, while another candidate, *belief subsystems*, will be examined in Section 4.7.

So, what are perspectives? Perspectives have first been introduced in the Necker cube case as *something from which a subject views, makes assertions and holds beliefs about an object*. In particular, in that case, Sally looks at the cube from two different perspectives: from one, she has the disposition to assert sincerely “The ABCD face seems to be in front” and so she believes that the ABCD face seems to be in front; from the other, she has the disposition to sincerely deny this sentence and so she disbelieves that the

ABCD face seems to be in front. The judge case, the case of the eliminative materialist and the case of the colour error theorist can also be revisited as cases involving pairs of different perspectives. For example, taking our cue from the fact that Mr. Justice Bennett *as a judge* believes that Jack should be condemned and *humanely* believes the contrary, it could be maintained that he holds these beliefs from different perspectives, respectively the *judicial perspective* and the *humanitarian perspective*. Similarly, we could say that in the case of the colour error theorist, Rob believes the proposition that fire engines are red from a *common sense perspective*, while he disbelieves it from the *perspective of colour error theory* (an analogous analysis can be advanced for the case of the eliminative materialist).

Perspectives differ from modes of presentation in various respects. By discussing the Necker cube case, the former device has been distinguished from the latter on the grounds that *an object can continue to be presented in the same way (viz. under the same mode of presentation) even if a change in perspective has occurred in the meanwhile*. For example, the way in which the Necker cube appears to Sally (viz. its position, the position of Sally in relationship to the cube, the luminosity of the room containing Sally and the cube, etc.) is not affected by her change in perspective.

Perspectives and modes of presentation also differ (at least in certain cases) in another count: the latter concern (viz. present) the *objects* that beliefs are about while the former deal with the *subjects/believers*. For example, in the ‘Cicero’/‘Tully’ case, the individual Cicero, which is the *object* Tom’s beliefs that Cicero is bald and that Tully is not bald are about, is presented under different modes of presentation, corresponding to the names ‘Cicero’ and ‘Tully’. By contrast, in the judge case, the two perspectives from which Mr. Justice Bennett respectively believes and disbelieves that Jack should be condemned, viz. the judicial perspective and the humane perspective, are perspectives of the *subject*, Mr. Bennett (not of the object, Jack).

Another noteworthy feature that perspectives seem to have is their being things *relative* to which propositions expressed by belief reports are true or false; in other words, perspectives would be *parameters of the circumstances of evaluation of these propositions*. Incidentally, in this connection, it should be remembered that whereas most philosophers claim that the circumstances of evaluation of propositions only include possible worlds, some authors maintain that other parameters enter them: e.g. Kaplan, A. Prior, Récanati, Brogaard argue – against Frege, Russell, G. E. Moore, Dummett, Lewis, Stalnaker, Salmon, Richard, King, Stanley – that time is also a parameter of the circumstances of evaluation of propositions; Brogaard, Barwise & Perry and Corazza suggest enriching them with situations as well, while MacFarlane includes in circumstances epistemic, moral, aesthetic and taste standards. According to the view discussed here, perspectives would be a further parameter of the circumstances of evaluation of propositions expressed by belief reports. Such a view particularly fits the judge case, in which Mr. Bennett believes that Jack should be condemned relative to a given perspective or *standard of judgment*, while he holds the opposite belief relative to a different perspective or standard of judgment; similarly, in the colour error theorist case, Rob believes relative to the common sense perspective that fire engines are red, and he believes relative to the perspective of colour error theory that fire engines are not red.

Summing up, perspectives are: things from which subjects view, make assertions and hold beliefs about objects; they typically differ from modes of presentation in their concerning subjects rather than objects; and they are a parameter of the circumstances of

evaluation of belief reports. Having stated (more or less) what perspectives are, we are now able to redefine modes of presentation in terms of the following constraint:

FC2: A rational subject cannot simultaneously and consciously believe and disbelieve *a* to be *F* under the same mode of presentation and relative to the same *perspective*.

The manoeuvre of enriching part (i) of Frege's Constraint with an additional device, perspectives, sanctions the impossibility for modes of presentation alone to solve the new puzzles about belief. On the other hand, the notion of a perspective is, all things considered, rather obscure and not sharply distinct from that of a mode of presentation; therefore, one could have (the wrong, in my opinion) suspicion that perspectives are nothing but modes of presentation. In order to achieve stronger evidence that modes of presentation are not sufficient to solve the puzzles about belief, we need to examine other puzzles.

#### **4. Cases *contra* part (i) of Frege's Constraint confined to conscious beliefs and enriched with perspectives**

In this section, we will examine two kinds of new puzzles about belief: puzzles whose protagonists are rational subjects with *divided mind* (viz. subjects who believe something with a component of their mind and disbelieves it with a different mental component); and puzzles which stem from *paraconsistent logics*. As we will see, puzzles of both groups falsify FC1 (p. 46) and some of them will also succeed in falsifying FC2 (the constraint introduced above).

##### **4.1 The case of the drunken lover**

When intoxicated, Martin believes himself to be a great lover. To be precise, someone asks the drunken Martin if he is a great lover, he will wink and nudge and say with bravado, "Are you kidding?". If the same question is asked of the sober Martin, he sighs and wanly says, "Are you kidding?". We will further suppose that Martin, when sober, never reflects upon the opinions he has when drunk and, similarly, when drunk is unconcerned with his opinions when sober. He has no recognition of his shifting views on this matter. What about Martin, does he believe that he is a great lover or not? [Fogelin 1993, p. 204]

Robert Fogelin, author of this case, answers the question by affirming that *Martin neither believes nor disbelieves that he is a great lover*. He arrives at this conclusion on the basis of the following argument. Martin has the disposition to assert "I am a great lover" in certain circumstances (when he is drunk) and to deny this sentence in other circumstances (when he is sober). The fact that a subject has the disposition to assert sincerely, on reflection and competently a sentence, '*p*', in a given circumstance does not entail, for Fogelin, that that subject has *tout court* the belief that *p*; it just entails that he has such a

belief *in one of his belief subsystems*, these being mental compartments which store token beliefs. So, Martin believes from a subsystem that he is a great lover and disbelieves the same thing from another subsystem, but he does not *tout court* believe or disbelieve so. This allows Fogelin to take the reports (40) and (41) to be neither true nor false.

(40) Martin believes that he is a great lover.

(41) Martin disbelieves that he is a great lover.

In my opinion, Fogelin's rejection of the move from believing that *p* in a mental compartment or subsystem to believe *tout court* that *p* is plausible only in the case of a subject who suffers from a multiple personality syndrome: in such a case, only his *personae* (subsystems) hold beliefs. On the other hand, Martin does not suffer from any psychological disorders and his holding two contradictory beliefs stored in separate subsystems does not prevent him, as a "whole"/"unitary" subject, to hold these very same beliefs. It might even be argued that such separation/isolation accounts for his intuitive rationality: since his two contradictory beliefs are *separately* stored, Martin does not have the chance to focus his attention on both beliefs simultaneously, consequently failing to notice the contradiction between them. In sum, Martin's believing and disbelieving that he is a great lover from different subsystems is in accordance with his being a rational subject and with the *truth of (40) and (41)*, *contra* Fogelin.

Notice that Martin's beliefs reported in (40) and (41) are both conscious; and the state of affairs of Martin's being a great lover is presented to Martin under only one mode of presentation. So, Martin, a rational subject, simultaneously and consciously believes and disbelieves himself to be a great lover under the same mode of presentation, to the effect that at least constraint FC1 (p. 46) is falsified.

## 4.2 A case of double life

A case in which the division of the mind into different subsystems is even more evident than in the drunken lover case is that of a subject who decides to lead a double life. In this connection, consider the following story.

Claire (not her real name), a 24-year old student at a university in Greater London, has a 2:1 degree in media studies and is currently studying for an MA in criminology. She was the first person in her single-parent family to go to university and felt it was "a big thing" that she should finish her degree despite increasing financial pressure. To fund her studies and support herself, she began stripping and working in hostess bars.

By Claire's third year at university, the Government had cut grants, offering loans as a replacement. Despite taking up the loans and doing regular bar work, she was still 700 pounds overdrawn. She says she started stripping because the hours enabled her to keep up her studies and she made more money in two nights than in a week working in a bar.

She got a job at a Soho club from an advertisement in a local paper. "I was making, on average, 500 pounds a week stripping. Through that, I managed to fund a trip around the world, and then my MA, which I wouldn't have had the

opportunity to do otherwise”. [“Students work in sex clubs to fund courses”, by Janine Gibson, *The Independent*, June 8, 1998]

Add an ingredient to this story: suppose that Claire feels guilt and shame because of her nightlife. She is consequently inclined to avoid thinking of that life when she is at university and, on the other hand, to avoid thinking of her life as a model student when she works at the Soho club. This psychological strategy helps her to run the two lives efficiently, without being overwhelmed by guilt or shame. As an effect of such a strategy, the beliefs that govern Claire’s daytime behaviour and those which govern her nocturnal behaviour are kept separate in her mind (viz. they are stored in distinct subsystems).

Now, since Claire manifests in her two lives very different or even opposite behaviours, we are justified in attributing to her a pair of contradictory beliefs, say the belief that  $p$  and the belief that  $\sim p$ . As I previously pointed out, these beliefs are stored in semi-independent subsystems of Claire’s mind, with the result that she fails to focus her attention on both contradictory beliefs at the same time. Such a failure accounts for her rationality.

Claire’s rationality cannot even be doubted on the grounds of her leading a double life. The decision to have a nocturnal life so different from her daytime life has, in Claire, a rational motivation: working as a night club hostess seems to her as the most effective way to make money without subtracting too much time from her studies.

So, Claire, a rational divided-mind subject, consciously believes and disbelieves  $p$  under the same mode of presentation, *contra* FC1 (p. 46).

### 4.3 Paraconsistent logics<sup>19</sup>

The cases of Martin the drunken lover and Claire the student stripper offer a promising explanation of how a subject can rationally hold two contradictory beliefs: she can do so if these beliefs are stored *separately* in her mind, viz. into semi-independent compartments (subsystems). It should be noted, on the other hand, that whereas these two cases succeed in falsifying FC1, they do not seem to straightforwardly falsify FC2 (p. 57) – i.e. the variant of Frege’s Constraint involving perspectives. In fact, two different perspectives are possibly available in the cases in question: the “drunken” perspective and the “sober” perspective in Martin’s case; the “daytime” perspective and the “nocturnal” perspective in Claire’s case. Additionally, it is unclear if the pairs of contradictory beliefs are *consciously* held by Martin and Claire *at the same time*.

These drawbacks of Martin’s and Claire’s cases lead us to look for more effective counter-examples to FC2. The counter-examples I am going to present in the forthcoming sections, 4.4-4.6, stem from *paraconsistent logics*. Notoriously, the distinguishing feature of these logics is their rejection of the *principle of explosion*, according to which contradictions entail everything, in symbols  $\{A, \sim A\} \models B$ . Because of this rejection, paraconsistent logics can be used to formalize non-trivially inconsistent theories (e.g. Bohr’s theory of atoms).

A particularly strong “form” of paraconsistency is *dialetheism*, which allows certain contradictions (*dialetheias*) to be true. Incidentally, dialetheism must in turn not

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<sup>19</sup> Most information contained in this section are from *Stanford Encyclopedia*, entries “Paraconsistent Logic” and “Dialetheism”.

be confused with *trivialism*, i.e. the view according to which *all* contradictions are true: dialetheism deals with contradictions only in a very controlled and discriminating way.

Importantly for our purposes, theories and phenomena formalized through paraconsistent logics give rise to counter-examples to part (i) of Frege's Constraint and its variants including FC2 (see below). The reason for this is rather evident. Consider a rational subject, *S*, who defends a non-trivially inconsistent theory containing sentences '*p*' and ' $\sim p$ '. As a supporter of this theory, *S* certainly has the disposition to assert sincerely and on reflection '*p*' and ' $\sim p$ '. So, *S* consciously believes and disbelieves *p*, and he does so under the same mode of presentation, corresponding to '*p*'.

Notice that endorsing this kind of counter-examples does not entail on our part to agree with paraconsistent logics, because such counter-examples do not presuppose the *truth* of '*p*' and ' $\sim p$ ': they only presuppose that a rational subject, supporting some paraconsistent logic, *believes-true* '*p*' and ' $\sim p$ '. Neither can the supposition that this supporter is rational be precluded because of his sincere acceptance of '*p*' and ' $\sim p$ ': paraconsistent logicians have sophisticated reasons for their inconsistent beliefs.

Part (i) of Frege's Constraint: A rational subject cannot simultaneously believe and disbelieve *a* to be *F* under the same mode of presentation.

FC1: A rational subject cannot simultaneously and *consciously* believe and disbelieve *a* to be *F* under the same mode of presentation.

FC2: A rational subject cannot simultaneously and consciously believe and disbelieve *a* to be *F* under the same mode of presentation and relative to the same *perspective*.

Let us look, then, at the counter-examples originating in paraconsistent logics.

#### 4.4 The writer case

A rational person, after thorough research, writes a book in which he claims  $A_1, \dots, A_n$ . But he is also aware that no book of any complexity contains only truths. So he rationally believes  $\sim(A_1 \ \&\ \dots \ \&\ A_n)$  too. [*Stanford Encyclopedia*, entry "Paraconsistent logic"]

One such rational person believes and disbelieves something, viz.  $A_1 \ \&\ \dots \ \&\ A_n$ , presumably under the same mode of presentation. Hence part (i) of Frege's Constraint is falsified.

It is not evident, on the other hand, that FC1 or FC2 is also falsified: their falsification requires that the two contradictory beliefs are both conscious, whereas the belief that  $\sim(A_1 \ \&\ \dots \ \&\ A_n)$  seems to be *tacitly* held by the subject.

#### 4.5 The Bohr case

Consider Bohr's theory of atom. According to this, an electron orbits the nucleus of the atom without radiating energy. However, according to Maxwell's equations, which

formed an integral part of the theory, an electron which is accelerating in orbit must radiate energy. Hence Bohr's account of the behaviour of the atom was inconsistent. Yet, patently, not everything concerning the behaviour of electrons was inferred from it. Hence, whatever inference mechanism it was that underlay it, this must have been paraconsistent. [*Stanford Encyclopedia*, entry "Paraconsistent Logic"]

So Bohr, who was undoubtedly a rational and intelligent person, consciously believed and disbelieved electrons to radiate energy under the same mode of presentation, *contra* FC1.

Does the Bohr case also falsify FC2? This is not entirely clear actually, since Bohr could be viewed as evaluating the proposition *that electrons radiate energy* from different standards/perspectives, say the Maxell's equations perspective and the *quanta* perspective.

#### 4.6 The computer case and the case of the latecomer student

Consider a computer which stores a large amount of information. While the computer stores the information, it is used to operate on it, and, crucially, to infer from it. Now it is quite common for the computer to contain inconsistent information, because of mistakes by the data entry operators or because of multiple sourcing. This is certainly a problem for database operations with theorem-provers, and so has drawn much attention from computer scientists. Techniques for removing inconsistent information have been investigated. Yet all have limited applicability, and, in any case, are not guaranteed to produce consistency. [...] Hence, [...] an underlying paraconsistent logic is desirable if hidden contradictions are not to generate spurious answers to queries. [*Stanford Encyclopedia of Philosophy*, entry "Paraconsistent logic"]

It is difficult to draw a falsification of Frege's Constraint or its variants from the *computer case*, since the notions of conscious belief, mode of presentation and perspective do not apply to computers. Nevertheless, a convincing case against FC2, involving a human being instead of a computer, can be devised using the computer case as a model.

Consider a student, Sam, who must prepare for an exam. The exam is forthcoming and Sam is rushed for time. He consequently starts to read several books, rapidly storing a large quantity of information. At first, Sam does not organize the material, purposing to do so at a later date, if time is left. He then takes for granted all information he reads, i.e. he believes all that information. It happens nevertheless that such information contains the items  $p$  and  $\sim p$ . Although the two occurrences of  $p$  are presented in the same way, the inconsistency between these items escapes Sam, due to the large quantity of information stored in his mind and the rapidity with which he studies. He will become aware of the inconsistency only at a later time, when he will review the material. So, for a while, Sam both believes and disbelieves  $p$  under the same mode of presentation, corresponding to ' $p$ '.

Notice that Sam fails to notice the contradiction between  $p$  and  $\sim p$ , not because his belief or disbelief is non-conscious, or because  $p$  is evaluated by him from different

perspectives, but most likely because the contradictory beliefs that  $p$  and that  $\sim p$  are separately stored in his mind, viz. they are stored in distinct mental compartments. Thus FC2 is falsified.

Incidentally, a case somehow similar to my latecomer student case has been proposed by John N. Williams [1981, p. 601]:

*A* may present an argument containing many premises, including  $p$  and including  $\sim p$ , and being sincere, believe each premise separately. Although these premises may be perspicuously contradictories when considered together, *A* may have only considered them *separately*, which allows him to [rationally] believe that  $p$  and believe that  $\sim p$ .

#### 4.7 An attempted defence and re-definition of modes of presentation

It is interesting to note that all cases presented so far against part (i) of Frege's Constraint or FC1 or FC2 (p. 60), i.e. the cases with non-conscious beliefs, those involving perspectives, the cases with divided-mind subjects and the ones originating in paraconsistent logics, share a crucial feature: in all of them, the subject *believes that p*, *believes that  $\sim p$*  but does not believe that  $p \& \sim p$ , with the result that thesis (T7) fails to hold.

(T7)  $S$  believes that  $p$  &  $S$  believes that  $q \rightarrow S$  believes that  $p \& q$ .

For example, in the case of Dr. Schiffer, the subject unconsciously believed that he loved his father, consciously disbelieved the same thing, but neither consciously nor unconsciously believed *that he loved his father and did not love his father*. Similarly, in the judge case, Mr. Justice Bennett believes from a judicial perspective that Jack should be condemned, he believes from a humane perspective that Jack should not be condemned, but from neither perspective does he believe the conjunction of these things. Also, in the case of the drunken lover, Martin asserts "I am a great lover" when drunk, when sober he denies this sentence, but neither drunk nor sober does he have the disposition to affirm "I am a great lover and I am not a great lover"; correspondingly, he holds the beliefs that he is a great lover and that he is not a great lover, without believing that he is a great lover and he is not.

Since it could be showed that (T7) also fails in all the other considered cases put forward so far against part (i) of Frege's Constraint and its variants, an advocate of modes of presentation could maintain that none of these cases provides a successful falsification of part (i) of Frege's Constraint or its variants, because in none of them does the subject genuinely have two contradictory beliefs: beliefs are things that necessarily satisfy thesis (T7).

*My response:*

It is generally thought that an essential property for belief is provided by thesis (T8), *not* by (T7).

(T8)  $S$  believes that  $p \ \& \ q \rightarrow S$  believes that  $p$  &  $S$  believes that  $q$ .

Convincing counter-examples to (T7) have in fact been put forward. One is mentioned by Barcan Marcus in her article “A Proposed Solution to a Puzzle about Belief” [1981, p. 507]:

some very large number of [lottery] tickets have been sold to  $a_1, a_2, \dots a_n$ , and although we might believe that for each  $a_i$  that  $a_i$  won't win, we do not believe that  $a_1$  won't win and  $a_2$  won't win ... and  $a_n$  won't win. In fact we believe the opposite.

Another counter-example to (T7) is offered by John N. Williams [1981, p. 601]:

[...] a man who can ‘only hold a few ideas in his head’ might severally believe each of a large number of propositions without being able to understand or consider their conjunction, and therefore without being able to believe it. Such a man would be like a person in a supermarket with a shopping list who can remember to buy each item upon seeing it, but who lacks the memory to write out the list for himself.

*Reply from the advocate of modes of presentation:*

There is another way in which the failure of (T7) could advantageously be used to safeguard the notion of a mode of presentation. One could affirm that the unwillingness of the subject to infer the belief that  $p \ \& \ \sim p$  from his individual beliefs that  $p$  and that  $\sim p$  is an evidence of the fact that these individual beliefs are *separately stored* in his mind, viz. they are stored in two semi-autonomous compartments (subsystems). The separation between the two compartments, in fact, creates an “obstacle” which hinders the subject to infer the belief that  $p \ \& \ \sim p$  from the beliefs that  $p$  and that  $\sim p$ .

The hypothesis that a link exists between unwillingness to “put together” pairs of contradictory beliefs and their being stored in distinct subsystems is maintained by Donald Davidson in some of his articles, e.g. “Deception and Division” and “Incoherence and Irrationality”.

[...] someone can believe  $p$  and at the same time believe not- $p$ ; he cannot believe ( $p$  and not- $p$ ). In the possible case, of simultaneously, and in some sense actively, believing contradictory propositions, the thinker fails to put [them] together. [2004b, p. 198]

How can a person fail to put the inconsistent or incompatible beliefs together?

[...] The point is that people can and do sometimes keep closely related but opposed belief apart. To this extent we must accept the idea that there can be boundaries between parts of the mind; I postulate such a boundary somewhere between any (obviously) conflicting beliefs. [2004a, p. 211]

Interestingly, *all* cases presented so far against part (i) of Frege's Constraint or its variants (and not just the cases of Martin the drunken lover and Claire the student stripper)

can be revisited as cases of *divided-mind* subjects (viz. subjects whose mind is divided into distinct subsystems), on the grounds that all subjects involved in these cases do not come to believe that  $p \& \sim p$  as a result of their believing that  $p$  and that  $\sim p$ . For example, we can think of the case of Dr. Schiffer as a case in which its protagonist believed from the subsystem of his unconscious beliefs that he loved his father, and he believed from the subsystems of his conscious beliefs the opposite. Similarly, we may say that, in the judge case, Mr. Bennett's belief that Jack should be condemned is stored in the subsystem of his judicial beliefs, whereas his belief that Jack should not be condemned is stored in the subsystem of his moral/humanitarian beliefs. Also, in the colour error theorist case, Rob believes from the subsystem of his ordinary beliefs that fire engines are red, and he believes from the subsystem of his highly theoretical beliefs that fire engines are not red (and of no colour at all).

Since all puzzles put forward so far against part (i) of Frege's Constraint and FC1 can be analyzed in this way, none of them falsifies the following constraint:

FC3: A rational subject cannot simultaneously believe and disbelieve  $a$  to be  $F$  under the same mode of presentation and *from the same subsystem*.

The involvement of belief subsystems, instead of perspectives, makes the new constraint FC3 preferable to FC2 (p. 60) for several reasons. First, the former notion is more clearly characterised than the latter. Belief subsystems are mental compartments which store token beliefs and satisfy the following condition: *for every pair of propositions  $p$  and  $q$  with  $p \neq q$  believed by a given subject  $S$ ,  $S$  is disposed to conjoin  $p$  and  $q$  and believe their conjunction,  $p \& q$ , if and only if there is at least one subsystem of  $S$  which stores both  $p$  and  $q$ .*

This condition allows us to sharply distinguish the notion of subsystem from that of modes of presentation, since modes of presentation do *not* satisfy any condition like that: the fact of believing and disbelieving  $a$  to be  $F$  under *different* modes of presentation (and not under the same) does not hinder someone from believing the conjunction of  $a$  to be  $F$  and  $a$  not to be  $F$ . For example, in the 'Cicero'/'Tully' case, Tom believes and disbelieves Cicero to be bald (only) under different modes of presentation, viz. those corresponding to the sentences "Cicero is bald" and "Tully is bald"; however, he believes the conjunction Cicero to be bald and Cicero not to be bald (under the mode of presentation corresponding to the sentence "Cicero is bald and Tully is not bald").

Finally, resorting to belief subsystems allows a uniform treatment of very different cases such as e.g. those involving perspectives and those involving non-conscious beliefs: we could now think of beliefs relative to a given perspective as beliefs stored in the same subsystem, and we could think of the sets of conscious and non-conscious beliefs as a pair of distinct subsystems.

If, on one hand, FC3 provides a clear characterisation of modes of presentation able to bypass all cases considered so far, on the other hand, it reveals that *modes of presentation are not sufficient to solve the puzzles about belief*: a further device, belief subsystems, is needed. Actually, we will see in the next section that not even modes of presentation plus subsystems suffice to solve all puzzles about belief: new puzzles falsifying the sophisticated constraint FC3 can be devised.

## 5. Cases *contra* part (i) of Frege's Constraint enriched with belief subsystems

What features should a case falsifying FC3 have? In order to answer this question, let us look again at the condition characterising belief subsystems, i.e.: for every pair of propositions  $p$  and  $q$  with  $p \neq q$  believed by a given subject  $S$ ,  $S$  is disposed to conjoin  $p$  and  $q$  and believe their conjunction,  $p \& q$ , if and only if there is at least one subsystem of  $S$  which stores both  $p$  and  $q$ . Given this condition, constraint FC3 will be falsified in case a subject who rationally believes and disbelieves  $a$  to be  $F$  under the same mode of presentation is *disposed to infer the belief that  $a$  is  $F$  and  $a$  is not  $F$  from his individual beliefs that  $a$  is  $F$  and that  $a$  is not  $F$* , to the effect that (according to the abovementioned condition) these individual beliefs will be stored in the *same* subsystem.

In this section, we shall examine two sorts of cases falsifying FC3: cases (*variant of the 'Paderewski' case, 'Superman' case, 'Bruce' case*) in which the subject mistakes an object for two objects and acquires contradictory beliefs about it, despite attaching to the two imaginary objects the *same* mode of presentation; a case (*dialetheist case*) whose protagonist is a dialetheist, namely someone who rationally takes certain contradictions to be true.

### 5.1 A variant of the 'Paderewski' case

In Kripke's classical 'Paderewski' case, Peter comes to believe that Paderewski has musical talent and to believe that Paderewski has no musical talent, because he mistakes Paderewski for two homonymous people, known to him one as a pianist and the other as a politician. According to theories of belief reports with modes of presentation, Peter believes and disbelieves something, viz. Paderewski to have musical talent, under two modes of presentation, respectively corresponding to the sentences "The pianist Paderewski has musical talent" and "The politician Paderewski has musical talent", which Peter fails to realize are modes of presentation of the same thing.

Let us now consider the following *variant of the 'Paderewski' case*. Peter met Paderewski on two different occasions a long time ago. On both, Paderewski was introduced to him as 'the pianist Paderewski'. Not realizing he met the same person on the two occasions, Peter came to believe (for some reason) that one Paderewski had musical talent and the other not. Today, Peter continues to have these beliefs, but the records of his past meetings with Paderewski are become extremely feeble. In fact, if we ask him for information about the two Paderewskis, he answers: "I remember meeting two pianists, both called 'Paderewski' and both Polish. One was very able, the other was not. I cannot recall any other information about these two guys".

We can then say that today Peter, who is an intuitively rational person, believes and disbelieves Paderewski to have had musical talent under the same mode of presentation, corresponding to the sentence "The pianist Paderewski had musical talent".

Given the proposed characterisation of belief subsystems (p. 64), we have no reason here to maintain that Peter's two opposite beliefs about Paderewski are stored in different subsystems: Peter is disposed to infer from those beliefs the belief that

Paderewski had musical talent and Paderewski had no musical talent. Hence FC3 (p. 64) is falsified.

Incidentally, a case against FC3 identical to my variant of the ‘Paderewski’ case has been proposed by G.W. Fitch [2004, p. 83]:

Suppose Jones comes to believe that there are two physicists named ‘David Green’. He heard about them at different times and [falsely] thought that the person being discussed at one time was not the person being discussed at another time. This is fixed in his mind but he cannot now recall any other information that might distinguish them. Later he comes to believe that one David Green lives in the East and that the other David Green lives in the West. Thus, Jones believes that David Green lives in the East and he believes that David Green does not live in the East. The only sense he attaches to the names is the sense of being a living famous physicist named ‘David Green’.

*Reply from an advocate of modes of presentation:*

It could be objected that two *different* modes of presentation under which Peter believes and disbelieves Paderewski to have had musical talent are available in the considered variant of the ‘Paderewski’ case: they are the modes of presentation corresponding to the sentences “The musically talented Paderewski had musical talent” and “The non-musically talented Paderewski had musical talent”. No falsification of FC3 (p. 64) can consequently be derived from the variant of the ‘Paderewski’ case.

Although a bit artificial, this reply is able to safeguard FC3: it exploits the fact that two different properties are attributed by Peter to Paderewski (viz. the property of *Having had musical talent* and the property of *Not having had musical talent*) in order to devise two different modes of presentation of the individual Paderewski (respectively corresponding to the descriptions ‘the musically talented Paderewski’ and ‘the non-musically talented Paderewski’). This trick, on the other hand, cannot be used to solve the puzzling cases presented in the next two sections, 5.2 and 5.3: in those cases, *no pair of different properties will be attributed by the subject to the object(s) her contradictory beliefs are about*.

## **5.2 The ‘Superman’ case**

Lois Lane has become wrongly convinced, for reasons that she has now forgotten and that we don’t know, that two different men are hidden behind Superman’s guise, namely that two men are walking around disguised as Superman. As a consequence of this, Lois acquires the disposition to assert the (false) sentence “Superman is not Superman”, with the intention of referring to the two presumed men. On the other hand, she also has the disposition to assert, about either of “them”, the (*a priori* true) sentence “Superman is Superman”. Importantly, Lois is unable to attribute to these men any different property, because whenever she sees Superman, she is unable to tell which of the two presumed men is hidden behind the guise.

On the basis of this story, we can say that Lois, an intuitively rational person, believes and disbelieves Superman to be identical to Superman under the *same* mode of presentation, corresponding to the sentence “Superman is Superman”. Notice that Lois is certainly disposed to infer the belief that Superman is Superman and Superman is not Superman from her individual beliefs that Superman is Superman and that Superman is not Superman; hence, given the characterisation of belief subsystems (p. 64), her two contradictory beliefs about Superman will be stored in the same subsystem. FC3 (p. 64) is consequently false.

*Reply from an advocate of modes of presentation:*

Taking her cue from the fact that Lois mistakes Superman for two homonymous people, one could counter the ‘Superman’ case by maintaining that Lois speaks a language (viz. an English idiolect) which contains two distinct names ‘Superman’ accidentally written and pronounced in the same way, say ‘Superman<sub>[1]</sub>’ and ‘Superman<sub>[2]</sub>’, referring to the two imaginary Supermen.<sup>20</sup> If so, two *different* modes of presentation will be attached by Lois to Superman: they will correspond to the names ‘Superman<sub>[1]</sub>’ and ‘Superman<sub>[2]</sub>’. Using these modes of presentation, two different modes of presentation under which Lois believes and disbelieves Superman to be Superman can easily be constructed.

It is not intuitively evident to me that such names are capable of identifying *different* modes of presentation, considering that *they are pronounced and written in the same way* (the square brackets surrounding the numerical subscripts just signal that the subscripts are unpronounced and unwritten; they do not count as letters/items of the string within quotes).

At any rate, the aforesaid reply of the advocate of modes of presentation against the ‘Superman’ case is ineffective against the following case, originating with Kit Fine, which is similar but more sophisticatedly constructed than my ‘Superman’ case.

### 5.3 The ‘Bruce’ case

[...] let us imagine a universe that is completely symmetric around someone's center of vision. Whatever she sees to her left *is* and *looks* qualitatively identical to something she sees on her right (not that she conceptualizes the two sides as ‘left’ and ‘right’ since that would introduce an asymmetry). She is now introduced to two identical twins, one to her left and the other to her right, and she simultaneously names each of them ‘Bruce’; using a left token of ‘Bruce’ for the left twin and a right token of ‘Bruce’ for the right twin. The two tokens of ‘Bruce’ are then always used in tandem so as not to disturb the symmetry. Thus if she uses a left token of ‘Bruce’ to say “Bruce is wearing pink pajamas”, she simultaneously uses a right token of ‘Bruce’ to utter the same thing. She can even assert the non-identity of the two Bruces by simultaneously uttering the one token of ‘Bruce’ from the left side of her mouth, the other token from the right, and a word for non-identity from the very middle of her mouth.

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<sup>20</sup> An argument for maintaining that Lois speaks such a language can be found in Santambrogio [2002].

It seems intuitively clear that she has the use of two names or, at least, the ambiguous use of a single name [...] But what, then, is the difference in sense? By considerations of symmetry, there is no purely descriptive difference in the referents. And this in itself is enough to refute a view that takes sense to be a purely descriptive means of identifying a referent. We can even suppose that she is originally introduced to one person but, seeing him “double”, takes him to be two people. Her use of the two names will then not even differ in their reference.

But what of a more liberal view of sense, one that allows it to be partly nondescriptive? [In a note, Fine adds: “I myself have doubts as to whether this is an intelligible option but, for present purposes, let us assume that it is.”] Given that our subject “picks out” the object or objects in two different ways, then might this not be taken to constitute a difference in sense? But what exactly are these different ways of picking out the objects meant to be? There would appear to be only two plausible candidates. They could be ways in which the objects are *currently* picked out; the sense of a token of a name, in other words, would somehow be tied to the use of that very token (or perhaps to the preceding token). But in this case, the sense of the name would vary from one moment to the next; and yet surely this is not so – or, at the very least, surely it should be possible for our subject to use consecutive tokens of the name in the very same way and hence with the very same sense. The other alternative is to look at the ways in which the two names were *originally* picked out; the sense of each token of the names would then be tied to the original identification of the objects. The problem here is that it would appear to be compatible with the continued use of each name that the subject should irretrievably lose all knowledge of how its referent was originally identified; and, in this case, she would be put in the bizarre situation of being able to use a name without having any knowledge, or even possible knowledge, of how it was to be understood. But neither option is plausible [...]. [Fine 2007, pp. 36-37]

In the long quoted passage, Fine at a certain point observes that “we can [...] suppose that [the subject] is originally introduced to one person but, seeing him “double”, takes him to be two people”. Suppose that Bruce is the person that the subject, say Susan, saw “double”. As a result, Susan acquired the disposition to assert sincerely “Bruce is not Bruce” with the intention of referring to the two presumed Bruces, and “Bruce is Bruce” with the intention of referring twice to either of “them”. Positive Disquotation (p. 39) allows us to attribute to Susan both the (*a priori* true) belief and the (false, impossible and illogical) disbelief that Bruce is Bruce. Nowadays Susan has “irretrievably lose all knowledge of how [Bruce] was originally identified”; however, she still hold her two contradictory beliefs about Bruce.

Given the perfect symmetry of the universe where Susan is located, given the fact that Susan is unable to conceptualize the positions occupied by the two Bruces as ‘left’ and ‘right’, and given also the fact that she has lost all memory of past sightings of the two Bruces, two different senses or more in general two different modes of presentation under which she believes and disbelieves Bruce to be identical to Bruce cannot be found. It seems that we cannot even construct these modes of presentation by supposing that Susan attaches to Bruce two distinct names accidentally written and pronounced in the

same way, say ‘Bruce<sub>[1]</sub>’ and ‘Bruce<sub>[2]</sub>’: the attribution of *different* names would disturb the perfect symmetry of Fine’s conceived universe.

In sum,

[...] there is nothing sensible we can say as to what these modes of presentation might be. There can be no purely descriptive difference between them, since there is no purely descriptive difference in the way that our thinker conceives of the two Bruces; and there is no plausible non-descriptive difference in the two modes of presentation. [Ibid., p. 71]

Finally, notice that Susan is capable of inferring her belief that Bruce is Bruce and Bruce is not Bruce from the two individual beliefs that Bruce is Bruce and that Bruce is not Bruce, to the effect that (according to the characterisation of belief subsystems on p. 64) these individual beliefs will be stored in the same subsystem. We shall conclude that FC3 is falsified.<sup>21</sup>

#### 5.4 The dialetheist case

Dialetheists are paraconsistent logicians who think that, in very special circumstances, contradictions are true. Maybe you, the reader, like me, doubt paraconsistent logics. There are, however, two facts that we all cannot dispute: (j) dialetheists (or at least most of them) are intelligent and rational people; (jj) there are instances of ‘ $p \& \sim p$ ’ that dialetheists believe-true. Now, statements (j) and (jj) entail that dialetheists rationally believe and disbelieve  $p$  under the same mode of presentation, corresponding to ‘ $p$ ’, and from the same subsystem.

A sentence instantiating ‘ $p$ ’ could be e.g. “The liar sentence is true”: several dialetheists in fact believe and disbelieve the liar sentence to be true under the same mode of presentation, corresponding to “The liar sentence is true”. Now, from (jj) it follows that dialetheists also believe that the liar sentence is true and the liar sentence is not true; so the individual beliefs that the liar sentence is true and that the liar sentence is not true will be stored in the same subsystem. FC3 (p. 64) is consequently falsified.

Incidentally, a case wholly similar to my dialetheist case has been proposed by the (unidentified) author of the article “Belief Content and Principles of Rationality”:

Can we find a highly rational person who will stare you right in the eye and say all at once, ‘ $P$  is true, and  $P$  is not true as well. The very thing that is true is also not true’? That would be the case of someone who in one breath as it were rationally asserts and denies the very same proposition under the very same mode of presentation. Prima facie, this would be pretty surprising. [...] However, there are such people, even philosophers: dialetheists will do so [Priest 2006, Priest &

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<sup>21</sup> Perhaps you, the reader, are not convinced about Fine’s ‘Bruce’ case. No matter, if you think, like some philosophers, that the principle of the identity of indiscernibles fails. Consider two distinct but indiscernible objects,  $a$  and  $b$ . Consider also a rational subject,  $S$ , who has the (*a priori*) belief that  $a$  is  $a$  and the belief that  $a$  is not  $b$  (along with the belief that  $a$  is  $a$  and  $a$  is not  $b$ ). Since  $a$  and  $b$  are *indiscernible* objects, the *same* mode of presentation will be attached to them. Suppose now that  $a$  and  $b$  are actually the same object, which  $S$  mistakes for two objects. If so,  $S$  will believe and disbelieve  $a$  to be  $a$  from the same subsystem and under the same mode of presentation, *contra* FC3.

Smiley 1993]. They, or at least some of their students, think that some contradictions are true, one expressed by sentences that generate certain semantic paradoxes. They believe that the liar claim is true; they also believe that it's not true. Obviously, the beliefs in question are had only by people with odd enough views in the philosophy of logic. Even so, if we tell the story right – a philosopher or a student of logic who finds the case for dialetheism overwhelming – we have a case of rationally required contradictory beliefs with the same mode of presentation and consciously affirmed all in one breath. [Unidentified 2003]

In defence of modes of presentation, it could be objected that the dialetheist case is a very special case, which, in principle, poses a problem not just to the theories with modes of presentation but (presumably) to any theory of belief reports.

On the other hand, the same cannot be said of Fine's 'Bruce' case, which specifically affects the mode-of-presentation theories of belief reports. It is not at all obvious how part (i) of Frege's Constraint could be further modified by way of making modes of presentation capable of solving the 'Bruce' case. Neither is it clear to me if any alternative definition of modes of presentation *completely* disregarding Frege's Constraint and its variants is available or even admissible (since it is unclear what remains of the intuitive idea of a mode of presentation once Frege's Constraint and all its variants are dismissed).

## 6. Summary and conclusion

Let us sum up the long argument against modes of presentation proposed in this chapter, before drawing some conclusion from it. We started from Schiffer's characterisation of modes of presentation, according to which a mode of presentation is anything that satisfies Frege's Constraint.

Frege's Constraint: A rational subject cannot simultaneously believe and disbelieve (i)  $a$  to be  $F$  under the same mode of presentation, or (ii) under different modes of presentation which the subject realizes are modes of presentation of the same thing.

Two counter-examples have been put forward against part (ii) of Frege's Constraint: the 'George Eliot'/'Mary Ann Evans' case, in which Jane rationally believes and disbelieves George Eliot to be such that Ralph believes she was a man, respectively under the modes of presentation corresponding to the sentences "Ralph believes that George Eliot was a man" and "Ralph believes that Mary Ann Evans a man", which Jane takes to be modes of presentation of the same thing (since she knows that 'George Eliot' and 'Mary Ann Evans' co-refer); and the 'Superman'/'Clark Kent' case, in which Emily believes and disbelieves Superman to fly, respectively under the modes of presentation corresponding to "Superman flies" and "Clark Kent flies", which she takes to be modes of presentation of the same thing (since she knows that 'Superman' and 'Clark Kent' co-refer).

In order to bypass cases of this kind, some advocates of modes of presentation suggest a simple manoeuvre: rejecting part (ii) of Frege's Constraint and redefining modes of presentation as things that satisfy part (i) of Frege's Constraint only.

Part (i) of Frege's Constraint: A rational subject cannot simultaneously believe and disbelieve *a* to be *F* under the same mode of presentation.

But this part of Frege's Constraint can also be falsified, since a rational subject is allowed to believe and disbelieve something under the same mode of presentation in case his belief or disbelief is *non-conscious*: e.g. in a puzzle proposed in this chapter, Dr. Fredric Schiffer, a rational and intelligent person, unconsciously believed and consciously disbelieved himself to have loved his father under the same mode of presentation.

The puzzles about non-conscious beliefs might be considered not decisive against modes of presentation by philosophers who reject the notion of non-conscious belief. And even philosophers who accept it could overcome the difficulties posed by these puzzles by confining the application of part (i) of Frege's Constraint to conscious beliefs only, to the effect that modes of presentation will be redefined as things satisfying the following constraint.

FC1: A rational subject cannot simultaneously and *consciously* believe and disbelieve *a* to be *F* under the same mode of presentation.

Unfortunately for the advocates of modes of presentation, puzzling cases can also be put forward against FC1: we have seen e.g. that in the judge case, Mr. Justice Bennett as a judge consciously believes that Jack should be condemned, while humanely he also consciously believes that Jack should not be condemned, without nevertheless attaching different modes of presentation to Jack.

In an attempt to solve puzzles of this kind, an advocate of modes of presentation could appeal to the notion of *believing (something) in a circumstance* and point out that, in the new puzzles falsifying FC1, the subject never holds two contradictory beliefs in the *same* circumstance (but only in different ones): e.g. Mr. Bennett believes that Jack should be condemned in circumstances where he thinks of Jack's case from a judicial point of view, while he believes the opposite in circumstances in which he thinks of that case from a humanitarian point of view, even though in either kind of circumstances he does not hold *both* contradictory beliefs. In the light of this, modes of presentation could be redefined as things such that: *a rational subject cannot simultaneously and consciously believe and disbelieve one thing under the same mode of presentation and in the same circumstance.*

On the other hand, the notion of *believing in a circumstance* is contentious. In particular, what parameter of the circumstance is relevant to determine if the subject holds or does not hold a certain belief in that circumstance? I have considered two possible candidates for this parameter: perspectives and belief subsystems.

The notion of *perspective* (i.e. something like a standard of judgment relative to which a believer "evaluates" a believed proposition) is rather obscure. Furthermore, in some of the puzzles proposed in this chapter (e.g. the latecomer student case, Section 4.6) two distinct perspectives are not intuitively available. These perplexities led me to cast aside a characterisation of modes of presentation in terms of constraint FC2.

FC2: A rational subject cannot simultaneously and consciously believe and disbelieve  $a$  to be  $F$  under the same mode of presentation and *relative to the same perspective*.

Instead, the notion of *belief subsystem* is more clearly characterised. Belief subsystems are mental compartments which store token beliefs and satisfy the following condition: for every pair of propositions  $p$  and  $q$  with  $p \neq q$  believed by a given subject  $S$ ,  $S$  is disposed to conjoin  $p$  and  $q$  and believe their conjunction,  $p \& q$ , if and only if there is at least one subsystem of  $S$  which stores both  $p$  and  $q$ . Interestingly, all cases put forward as counter-examples to part (i) of Frege's Constraint or FC1 or FC2 can be reviewed as cases involving *divided-mind* subjects, viz. subjects whose mind is partitioned into subsystems capable of simultaneously (but separately) storing pairs of contradictory beliefs.<sup>22</sup> A redefinition of the notion of a mode of presentation in terms of the following constraint seems therefore opportune:

FC3: A rational subject cannot simultaneously believe and disbelieve  $a$  to be  $F$  under the same mode of presentation and *from the same belief subsystem*.

On the other hand, *contra* constraint FC3, I argued (using the abovementioned characterisation of belief subsystems) that a subject can rationally believe and disbelieve  $a$  to be  $F$  under the same mode of presentation and *from the same subsystem* if she also believes the conjunction that  $a$  is  $F$  and  $a$  is not  $F$ ; this happens e.g. in Fine's 'Bruce' case (Section 5.3).

Since no further variant of part (i) of Frege's Constraint capable of solving the 'Bruce' case seems available and since it is unclear how modes of presentation could be defined by completely disregarding Frege's Constraint and its variants, a conclusion seems to follow from my long argument: no characterisation of the notion of a mode of presentation can be provided such that makes modes of presentation alone (i.e. without the supplementation of any further device) able to intuitively solve all new puzzles about belief presented in this chapter; more simply stated, *resorting to modes of presentation is not sufficient to solve the puzzles about belief*.

*Reply from an advocate of modes of presentation:*

The fact that in the puzzles presented in this chapter two distinct modes of presentation (defined in terms of Frege's Constraint or its variants) are *intuitively unavailable* does not exclude that a theory of belief reports involving sufficiently sophisticated and "artificial" modes of presentation exists or will be created in the future which is able to solve all puzzles about belief.

Secondly, even if modes of presentation were not *sufficient* to solve the new puzzles, they could still be *necessary* in order to solve the classical puzzles about belief presented in Chapter 1 (the 'Cicero'/'Tully' case, the 'Londres'/'London' case, the 'Paderewski' case, etc.).

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<sup>22</sup> At this point, perspectives could be thought of as a kind of subsystems, and the sets of conscious and non-conscious beliefs could be thought of as two different subsystems as well.

*My response:*

In order to make more circumstantial my criticism against modes of presentation, in the next two chapters I shall examine what I reckon to be the most interesting and sophisticated accounts of belief reports involving modes of presentation: from the “Fregean” front, Schiffer’s [2003] theory with semantic modes of presentation conceived as pleonastic propositions; from the Russellian front, Nathan Salmon’s [1986, 1989] theory of belief reports involving (non-semantic) modes of presentation (*guises*) conceived according to a suggestion of David Braun [1998] as mental sentences or following a proposal of Jennifer Saul [2007] as mental files/nodes. I shall try to argue that none of these theories is able to solve all puzzles presented in this chapter (i.e. at least some of them remain unsolved).

As regards the allegation that modes of presentation would be necessary to solve the classical puzzles about belief, in Chapter 6 I shall propose a new Russellian account of belief reports which solves both the classical and the new puzzles about belief without resorting to modes of presentation. Two other notions will be introduced in order to solve the puzzles: *belief subsystems* and *cognitive coordination*. The notion of belief subsystem, which has been sketched in this chapter, will be more carefully and deeply characterized in Chapter 6. The notion of coordination, originating with Kit Fine, will be first introduced in Chapter 5 following Fine’s instructions and then modified (in order to overcome certain difficulties met by Fine’s account) in Chapter 6. It will be shown that neither subsystems nor coordination are good candidates for modes of presentation, on the grounds that they do not satisfy Frege’s Constraint even in the *classical* puzzles about belief, where all other candidates usually satisfy it.

# Chapter 3

## Schiffer

This chapter is about Stephen Schiffer's [2003] account of belief reports, in which the role of a mode of presentation is somehow played by *pleonastic proposition*. Since his account presents significant analogies with Frege's, I consider it useful to start with a review of Frege's account of belief reports, subsequently moving on to present Schiffer's account. I shall spend some time illustrating the advantages of the latter over the former account, emphasizing in particular Schiffer's ability to avoid certain problems that Frege's account encounters. I shall also raise, on the other hand, some doubts about Schiffer's account. This illustration and discussion will be followed by a presentation of Schiffer's solutions to the classical puzzles of inconsistency, impossibility and contradiction. I shall argue that Schiffer's account does not have the resources to solve at least some of the new puzzles about belief devised in Chapter 2.

### 1. Frege

Frege [1948, 1956] famously maintained that non-empty expressions have two semantic values: denotation (or referent) and sense (or meaning), the latter being a mode of presentation of the former. For example, the name 'Cicero' in the sentence

(1) Cicero is bald

denotes the individual Marcus Tullius Cicero and expresses a sense which is a mode of presentation of Cicero – let us use the symbol  $s_{\text{Cicero}}$  to indicate this sense. Together with

the sense of the predicate ‘is bald’ (in symbol  $s_{\text{Baldness}}$ ),  $s_{\text{Cicero}}$  forms the sense of sentence (1), which is a kind of structured proposition called *Fregean proposition*. We shall represent it with the order pair

(1p)  $\langle s_{\text{Cicero}}, s_{\text{Baldness}} \rangle$ .

*Semantics of belief reports:*

According to Frege, an expression within a belief (linguistic) context does not keep its customary semantic values. Instead, it denotes its customary sense and expresses a second-order sense, in symbol  $s^2$ , which is a mode of presentation of its customary sense. A sentence like (2) will therefore express the Fregean proposition (represented with the sequence) (2p).

(2) Tom believes that Cicero is bald.  
 (2p)  $\langle s_{\text{Tom}}, s_{\text{Belief}}, \langle s^2_{\text{Cicero}}, s^2_{\text{Baldness}} \rangle \rangle$

Sentence (2) and proposition (2p) are true if and only if Tom stands in the belief relation to proposition (1p), denoted in (2) by the clause ‘that Cicero is bald’.

*Fregean propositions as modes of presentation:*

Fregean propositions are subject to *Frege’s Constraint* which, shaped on Frege’s account of belief reports, takes a formulation like the following:

FC<sub>Frege</sub>: A rational subject cannot simultaneously believe and disbelieve the same Fregean proposition, or (ii) different Fregean propositions which the subject realizes are propositions representing the same thing (say, the same state of affairs).<sup>1</sup>

*Belief reports and substitution:*

Consider the following principle and inference:

Substitution: The truth-value of a sentence ‘ $p$ ’ does not change if a term ‘ $T$ ’, occupying a given position in ‘ $p$ ’, is replaced with another term which, in that position, has the same *denotation* as ‘ $T$ ’.

(Inf 1)  
 (P1a) Tom believes that Cicero is bald.

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<sup>1</sup> The original formulation of Frege’s Constraint, discussed in Ch. 2, was this: a rational subject cannot simultaneously believe and disbelieve (i)  $a$  to be  $F$  under the same mode of presentation, or (ii) under different modes of presentation which the subject realizes are modes of presentation of the same thing. The new formulation, FC<sub>Frege</sub>, is drawn from the original one taking into account that, for Frege, to believe  $x$  to be  $F$  under the mode of presentation  $m$  is just to believe the proposition that  $m$ , where the proposition that  $m$  is true in the actual world just in case  $x$  is  $F$  (see Schiffer 1990), i.e. just in case the state of affairs represented by  $m$  obtains.

- (P1b) Cicero is Tully.  
 $\therefore$  (C1) Tom believes that Tully is bald.

Many think that, intuitively, inference (Inf 1) is invalid. Frege is able to account for this intuition without renouncing Substitution. In his view, in fact, the invalidity of (Inf 1) is justified thanks to the difference between the Fregean propositions *that Cicero is bald* and *that Tully is bald* (a difference which is required by  $FC_{\text{Frege}}$ : if these propositions were identical, in a situation where Tom rationally believes that Cicero is bald and disbelieves that Tully is bald, he would believe and disbelieve the *same* Fregean proposition, *contra*  $FC_{\text{Frege}}$ ). Since the propositions *that Cicero is bald* and *that Tully is bald* differ, if Tom does not realize that they represent the same state of affairs, he can believe the former proposition without believing the latter, to the effect that (Inf 1) will be invalid.

Notwithstanding the invalidity of (Inf 1), Substitution does not fail but rather is *inapplicable* to the move from (P1a) to (C1). In fact, this principle only applies to *co-denotative* terms, whereas ‘Cicero’ in (P1a) and ‘Tully’ in (C1) denote, for Frege, *different* senses.

*Belief reports and translation:*

Consider the following principle and inference:

Translation: “If a sentence of one language expresses a truth in that language, then any translation of it into any other language also expresses a truth (in that other language).” [Kripke 1988, p. 114]

- (Inf 2)  
 (P2) Pierre croit que Londres est jolie.  
 $\therefore$  (C2) Pierre believes that London is pretty.

According to Frege, (Inf 2) is invalid: if Pierre mistakes London for two cities, he will attach different senses to the names ‘Londres’ and ‘London’, with the possible result of believing the Fregean proposition *que Londres est jolie* without believing the Fregean proposition *that London is pretty*.

Notice that the invalidity of (Inf 2) does not necessarily lead to the conclusion that the principle of Translation fails when applied to belief reports. It could alternatively be argued that (C2) and (P2) are (strictly speaking) *not inter-translatable*: translation is something that preserves meaning; on the other hand, the meanings of (P2) and (C2), i.e. the Fregean propositions

$$\begin{aligned} &< S_{\text{Pierre}, S_{\text{Belief}}, < s^2(\text{‘Londres’})_{\text{London}}, s^2_{\text{Prettiness}} >> \\ &< S_{\text{Pierre}, S_{\text{Belief}}, < s^2(\text{‘London’})_{\text{London}}, s^2_{\text{Prettiness}} >>, \end{aligned}$$

differ because, within these propositions, the second-order senses of ‘Londres’ and ‘London’, i.e.  $s^2(\text{‘Londres’})_{\text{London}}$  and  $s^2(\text{‘London’})_{\text{London}}$ , differ. Now, if (P2) and (C2) are

not inter-translatable, the principle of Translation (does not fail but rather) is *inapplicable* to the former sentence in order to move to the latter.

## 1.1 Problems for Frege

Frege's account of belief reports suffers from a variety of problems. In this section, I shall illustrate four problems: the first two originate in the Fregean thesis that *the denotation of an expression shifts by moving from simple to propositional-attitude contexts*; the remaining two originate in the thesis that *the sense of a proper name vary from speaker to speaker*.<sup>2</sup>

*First problem (about reference shifting in belief contexts):*

Consider the inferences

(Inf 3)

(P3) Ralph believes that Fido is a dog.

∴ (C3)  $\exists x(x \text{ is Fido} \ \& \ \text{Ralph believes that } x \text{ is a dog})$ .

(Inf 4)

(P4) Ralph believes that Fido is a dog.

∴ (C4)  $\exists x(x \text{ is a sense of Fido} \ \& \ \text{Ralph believes that } x \text{ is a dog})$ .

For Frege, the value of the last occurrence of the variable 'x' both in (C3) and in (C4) is not Fido but a sense of it. Accordingly, (Inf 3) will be invalid while (Inf 4) will be valid. But these results plainly contrast with our pre-theoretical intuitions, according to which (Inf 3) is valid while (Inf 4) is not.

*Second problem (about anaphora):*

Consider sentence (3), where the pronouns 'he' and 'her' work as anaphors respectively linked to the names 'Tom' and 'Ann'. Assuming the standard definition of anaphora, according to which an anaphor has the same denotation as the expression it is linked to, the pronouns 'he' and 'her' in (3) will respectively denote Tom and Ann. This intuitive result is nevertheless incompatible with Frege's account of belief reports, according to which 'he' and 'her' in belief contexts denote senses rather than people.

(3) Tom went out with Ann. I believe he is having dinner with her.

*Third problem (about beliefs shared by multiple subjects):*

Consider the inference

(Inf 5)

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<sup>2</sup> About the latter thesis, see Dummett [1981, pp. 584-585]. Most of the problems and examples presented in this section take their cue from Schiffer [2003, pp. 24-29].

(P5)  $S_1$  believes that New York is noisy,  $S_2$  believes that New York is noisy, ...  
 $S_n$  believes that New York is noisy, where  $S_1, S_2, \dots, S_n$  are *all* the visitors to  
New York.

$\therefore$  (C5) All visitors to New York believe that New York is noisy.

Intuitively, (Inf 5) is valid. However, suppose that the visitors to New York do not attach the same sense to the name 'New York'. If so, the  $n$  'that'-clauses contained in (P5) will *not* denote the *same* Fregean proposition, with the counterintuitive result that (Inf 5) will be invalid.

In order to overcome this difficulty, one may suggest modifying Frege's account of belief reports in such a way that (C5) is analyzed as (5) instead of as (4).

(4) For every visitor  $x$  to New York,  $x$  believes  $\langle s_{NY}, s_{\text{Being noisy}} \rangle$ .

(5) For every visitor  $x$  to New York, there is a sense  $y$  of New York such that  $x$  believes  $\langle y, s_{\text{Being noisy}} \rangle$ .

This proposal nevertheless meets a problem: once (C5) is analyzed as (5), any utterer of (C5) will convey the information that *there are/exist senses*; but, of course, one may assert (C5) without intending to convey this information, if she does not believe in the existence of senses or she has no idea of what a sense is.

*Fourth problem (about de re beliefs):*

Intuitively, the report "Tom believes that Cicero is bald, but he does not believe that Tully is bald" correctly describes what Tom believes and does not believe in the 'Cicero'/'Tully' case (Ch. 1, pp. 8, 23). Frege's theory of belief reports is able to account for the intuitive correctness of this report, thanks to the difference between the Fregean propositions *that Cicero is bald* and *that Tully is bald*.

It is a matter of fact, on the other hand, that there are also circumstances in which it is intuitively correct to report Tom's belief about Cicero that he is bald by saying "Tom believes that Tully is bald", e.g. when this belief is reported to someone who knows Cicero only by the name 'Tully'. But how can Frege's theory of belief reports account for the intuitive correctness of "Tom believes that Tully is bald" in these circumstances, considering that (as I have stated above) Tom *does not* believe the Fregean proposition *that Tully is bald*?

The proposal – which one might advance in order to solve this problem – of analysing report "Tom believes that Tully is bald" as a sentence involving quantification over senses instead of senses themselves incurs difficulties of the same kind as those affecting (5).

## 2. Schiffer

The problems affecting Frege's account of belief reports find a solution in Schiffer's [2003] account. Before illustrating Schiffer's solution to them, I would like to survey his semantics of simple and belief sentences/utterances.

We might start with the observation that, in Schiffer's view, the meanings of *type* expressions are conceived as *characters\**, which differ from Kaplan's customary characters in that the former

serve not to *determine* propositional contents but rather to *constrain* them. [Ibid., p. 132]

More precisely, characters\* of expressions are

abstract entities that represent constraints on what speech acts, and with what propositional contents, literal speakers must be performing when they utter those expressions. [Ibid., p. 156]

For example,

[t]he character\* of 'I' constrains the literal speaker who utters a token of 'I' to be performing a speech act whose content is a self-descriptive proposition, a proposition of the sort one could refer to by using a that-clause that contains 'I'. Such a proposition would be an object-dependent proposition where the thing on which the proposition's identity and existence was dependent was the person who could use 'I' to refer to the proposition.

[... T]he character\* of a name *n* constrains the literal speaker who utters a token of a name to be performing a speech act whose propositional content is an *x*-dependent proposition, where *x* is the bearer of the uttered name.

[... T]he character\* of [the predicate] 'red' constrains the literal speaker who utters a token of 'red' to be performing a speech act whose propositional content is a redness-dependent proposition. [Ibid., pp. 132-133]

While type expressions have meaning (viz. characters\*), *token* expressions have *content* or have *denotation/referent*. Precisely, token (declarative) sentences (*statements*) have content, this being a (i) pleonastic, (ii) unstructured, (iii) fine-grained and (iv) contextually determined proposition, whereas sub-sentential token expressions do not have content but (if not empty) they have denotation (names and definite descriptions usually denote individuals or events, while predicates denote properties or relations). The reason why, for Schiffer, sub-sentential (token) expressions do not have content will be made clear later. Let us examine now *Schifferian propositions*, i.e. propositions satisfying conditions (i)-(iv).

*Schifferian propositions as pleonastic entities:*

Pleonastic entities are entities whose existence is typically secured by something-from-nothing transformations – ‘secured’ not necessarily in the sense that they are brought into existence (like fictional entities) but in the sense that their existence supervenes on the premises of something-from-nothing transformations. We have a something-from-nothing transformation when from a statement involving no reference to an *F* we can deduce a statement that does refer to an *F*. The property of being a dog is a pleonastic entity. From the statement

Lassie is a dog,

whose only singular term is ‘Lassie’, we can validly infer its pleonastic equivalent

Lassie has the property of being a dog,

which contains the new singular term ‘the property of being a dog’, whose referent is the property of being a dog. [Ibid., p. 61]

Propositions [...] are also pleonastic entities. They have their something-from-nothing transformations, such as the one that takes us from

Lassie is a dog,

whose only singular term continues to be ‘Lassie’, to another of its pleonastic equivalents,

That Lassie is a dog is true

(more colloquially, ‘It is true that Lassie is a dog’), which contains the singular term ‘that Lassie is a dog’, whose referent is the proposition that Lassie is a dog. [Ibid., p. 71]

*Schifferian propositions as unstructured entities:*

In Schiffer’s view, propositions are unstructured entities.

To say that a proposition is structured is to say that it is individuated wholly in terms of certain items as related in a certain way, where those items, as related in that way, determine a truth condition for the proposition. [Ibid., p. 15]

The items in question can themselves be propositions or more basic components (*propositional building blocks*).

*Schifferian propositions as fine-grained entities:*

Notwithstanding their being unstructured, Schifferian propositions are fine-grained. This feature makes them strikingly different from other kinds of unstructured propositions, e.g. *Stalnakerian propositions*.

Incidentally, according to Robert Stalnaker [1984], the proposition expressed by a statement ‘*p*’ is the set of all possible worlds in which ‘*p*’ is true. Propositions conceived as sets of possible worlds are *coarse-grained*: statements which are true in the same worlds express the same proposition, with the result that e.g. Livonia knows every mathematical truth just by virtue of knowing that every dog is a dog.

This undesirable outcome is avoided by Schiffer thanks to his conception of propositions as fine-grained entities: in his view, the ‘that’-clauses in “Livonia believes that every dog is a dog” and e.g. in “Livonia believes that  $7+5=12$ ” refer to distinct propositions.

*Schifferian propositions as contextually determined entities:*

Schifferian propositions are contextually determined, to the effect that different utterances of the same sentence can express different Schifferian propositions even in case no (standard) indexical is contained in the sentence. It should be noted, in this connection, that the circumstances of evaluation of a Schifferian proposition only include possible worlds; therefore, all other relevant parameters of the (pragmatic) context will end up affecting the proposition.

*A consequence of Schiffer’s conception of propositions:*

The fact that Schifferian propositions are unstructured and contextually determined allows Schiffer to maintain that there are no such things as propositional building blocks, on the grounds that

the contextually determined criteria of evaluation [that determine the proposition to which a given ‘that’-clause refers] seem not to determine anything adequate to be propositional building blocks. [2003, p. 82]

If there is no propositional building block, then – as previously noted – sub-sentential expressions have no content, i.e. they provide no contribution (block) to propositions.

*Semantics of belief statements:*

Unlike Frege, Schiffer [ibid., p. 84] recovers semantic innocence by maintaining that expressions within propositional-attitude-context utterances stand for their customary denotation (and not for special entities like senses). For example, in an utterance of (2), the name ‘Cicero’ refers to the individual Cicero.

(2) Tom believes that Cicero is bald.

An utterance of (2) expresses a Schifferian proposition *that Tom believes that Cicero is bald*. Both these utterance and proposition are true if and only if Tom stands in

the belief relation to a Schifferian proposition *that Cicero is bald*. This proposition is determined by the (pragmatic) context in which the reporter makes her utterance (coherently with what has been stated on p. 81).<sup>3</sup>

*Schifferian propositions as modes of presentation:*

Schifferian propositions expressed by statements embedded in *de dicto* belief-context utterances can be viewed as *modes of presentation* of the things (say, states of affairs) that the abovementioned statements represent.<sup>4</sup> As such, these propositions are subject to Frege's Constraint, which, adapted to Schiffer's account of belief-reporting utterances, takes the following formulation:

FC<sub>Schiffer</sub>: In no (pragmatic) context of ascribing a *de dicto* belief, is it correct to claim that a rational subject simultaneously believes and disbelieves (i) the same Schifferian proposition, or (ii) different Schifferian propositions which the subject realizes represent the same thing.<sup>5</sup>

*Belief statements and substitution:*

Reconsider the principle of Substitution and inference (Inf 1) (pp. 75-76). Schiffer agrees with Frege in taking (Inf 1) as invalid: since Schifferian propositions are fine-grained, the 'that'-clauses contained in utterances of (P1a) and (C1) (pp. 75, 76) can refer to different Schifferian propositions, to the effect that Tom can believe the proposition denoted by 'that Cicero is bald' without believing the proposition denoted by 'that Tully is bald' if he does not realize these propositions represent the same thing.

It should be noted, on the other hand, that whereas Frege takes the invalidity of (Inf 1) as showing that Substitution is *inapplicable* within belief-context utterances, for Schiffer, 'Cicero' in (P1a) and 'Tully' in (C1) keep their customary denotation and so they are co-denotative; accordingly, the principle of Substitution is applicable to the move from (P1a) to (C1), and it *fails to hold*.

*Belief statements and compositionality:*

The fact that the 'that'-clauses in (P1a) and (C1) refer to different Schifferian propositions notwithstanding that 'Cicero' in (P1a) and 'Tully' in (C1) co-refer yields the failure of *compositionality*, which

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<sup>3</sup> I have used here the phrase 'a Schifferian proposition that *p*' instead of 'the Schifferian proposition that *p*' because, as previously pointed out, different utterances of the same sentence may express different Schifferian propositions, to the effect that there could be more than one Schifferian proposition that *p*.

<sup>4</sup> In his article "The Mode-of-Presentation Problem", Schiffer argues that there is no plausible candidate for a mode of presentation (i.e. for satisfying Frege's Constraint). Surprisingly, he does not consider pleonastic propositions as a possible candidate for this role.

<sup>5</sup> Since Schiffer provides no theoretical characterisation of the *de dicto/de re* distinction, I shall appeal to an intuitive characterisation of this distinction: a *de dicto* belief context is a linguistic context where a belief of a given subject is reported so as to be faithful to how the believer herself would express it; a belief context is said to be *de re* if it is not *de dicto*.

[t]o a first approximation, [...] holds that the referent of a that-clause token is determined by its structure and the referents its component expressions have in that token. [Ibid., p. 17]

*Belief statements and translation:*

Reconsider the principle of Translation and inference (Inf 2) (p. 76). In Schiffer's account, as in Frege's, (Inf 2) is invalid: the 'that'-clauses in (P2) and (C2) (p. 76) can refer to different Schifferian propositions, to the effect that utterances of (P2) and (C2) can respectively be true and false.

The invalidity of (Inf 2) most likely shows that Translation fails in Schiffer's view. In this connection, we should notice that since the referent of the 'that'-clauses in (P2) and (C2) differs, the content of (i.e. the Schifferian propositions expressed by) (P2) and (C2) will differ as well. Nevertheless, this does not forbid claiming that these two statements are one the translation of the other: translation is something that preserves meaning but not necessarily content, if meaning (character\*) does not determine but just constrains content (p. 79). Now, if (P2) to (C2) are inter-translatable, Translation is applicable to the move from (P2) to (C2), and it *fails to hold*.

## 2.1 Comparison between Schiffer and Frege

There are some analogies between Frege's and Schiffer's accounts of belief statements: for both,

- (a) belief is a relation between a subject and a proposition;
- (b) propositions are fine-grained and (if expressed by statements contained in *de dicto* belief-context utterances) they can be viewed as modes of presentation, to the effect that they are subject to some version of Frege's Constraint;
- (c) inferences (Inf 1) (pp. 75-76) and (Inf 2) (p. 76) are invalid;
- (d) presumably, the principle of Translation fails.

On the other hand, Schiffer's account differs from Frege's on some important counts:

- (a\*) Schifferian propositions are unstructured and contextually determined;
- (b\*) expressions within belief-context utterances do not refer to special entities such as senses but to ordinary objects;
- (c\*) Substitution and compositionality fail.

Whereas feature (c\*) could be reckoned by someone as a backward step in comparison to Frege's account (this account keeping compositionality and making Substitution inapplicable to belief contexts), features (a\*) and (b\*) introduce advantageous changes, allowing Schiffer to solve the problems which affect Frege's account illustrated in Section 1.1. I am now going to present Schiffer's solutions to those problems.

*Solution to the problem of reference shifting in belief-context utterances:*

Reconsider the inferences:

(Inf 3)

(P3) Ralph believes that Fido is a dog.

∴ (C3)  $\exists x(x \text{ is Fido} \ \& \ \text{Ralph believes that } x \text{ is a dog})$ .

(Inf 4)

(P4) Ralph believes that Fido is a dog.

∴ (C4)  $\exists x(x \text{ is a sense of Fido} \ \& \ \text{Ralph believes that } x \text{ is a dog})$ .

We have seen that Frege cannot account for the intuitive validity of (Inf 3) and for the intuitive invalidity of (Inf 4) since, for him, ‘Fido’ in (P3)/(P4) denotes a sense instead of Fido. Thanks to his recovering semantic innocence within propositional-attitude-context utterances, Schiffer is able to account for these intuitions about (Inf 3) and (Inf 4): in his view, the denotation of ‘Fido’ in (P3)/(P4) and the value of the last occurrence of ‘ $x$ ’ in (C3)/(C4) is simply Fido.

*Solution to the problem with anaphora:*

Schiffer’s recovering the semantic innocence within propositional-attitude-context utterances also allows him to maintain that in (3) the pronouns ‘he’ and ‘her’, linked to the names ‘Tom’ and ‘Ann’, respectively stand for the bearers of these names, coherently with the standard definition of anaphora (according to which an anaphor has the same referent as the expression it is linked to).

(3) Tom went out with Ann. I believe he is having dinner with her.

*Solution to the problem about beliefs shared by multiple subjects:*

We have seen that Frege cannot account for the intuitive validity of (Inf 5), since the visitors to New York may attach different senses to the name ‘New York’.

(Inf 5)

(P5)  $S_1$  believes that New York is noisy,  $S_2$  believes that New York is noisy, ...  
 $S_n$  believes that New York is noisy, where  $S_1, S_2, \dots, S_n$  are all the visitors to New York.

∴ (C5) All visitors to New York believe that New York is noisy.

Unlike Frege, Schiffer is able to answer for the validity of (Inf 5). Taking into account that the degree of fineness of a Schifferian proposition may vary according to the (pragmatic) context where the utterance expressing such a proposition is made (coherently with what stated on p. 81), Schiffer can maintain that all  $n$  ‘that’-clauses contained in statement (P5) refer to the *same* Schifferian proposition *that New York is noisy*, this being a proposition with a degree of fineness presumably comparable to that of the Russellian proposition *that New York is noisy*. If so, inference (Inf 5) will be valid, in accordance with our intuition.

*Solution to the problem about de re belief:*

Consider a situation in which Mary answers (6) to the question whether Tom in the ‘Cicero’/‘Tully’ case (Ch. 1, pp. 8, 23) believes or does not believe that Tully is bald. Consider also a different situation, where Mary affirms (7) intending to report Tom’s belief about Cicero that he is bald to someone who only knows Cicero under the name ‘Tully’. Both of Mary’s belief-reporting utterances seem intuitively correct, considering the situations where they are made; on the other hand, they are contradictory.

(6) Tom does not believe that Tully is bald.

(7) Tom believes that Tully is bald.

Exploiting the fact that Schifferian propositions are contextually determined and Mary’s two belief-reporting utterances are made in different situations/contexts, Schiffer is able to account for the intuitive correctness of both utterances without incurring any contradiction. In his view, in fact, Tom believes and does not believe two *different* Schifferian propositions *that Tully is bald*: the believed proposition (“determined” by the second considered situation) presumably has a degree of fineness comparable to that of the *Russellian* proposition *that Tully is bald*; the non-believed proposition (“determined” by the first considered situation) presumably has a degree of fineness comparable to that of the *Fregean* proposition *that Tully is bald*.

## 2.2 Some doubts about Schiffer

As we have seen, Schiffer’s special conception of propositions allows him to recover semantic innocence and to solve a number of difficulties of Frege’s account of belief reports. However, his conception also has some drawbacks.

*First drawback:*

In the ‘Cicero’/‘Tully’ case, Tom rationally believes that *Cicero* is bald and that *Tully* is not bald. Now, consider a situation in which someone correctly makes the *de re* statement (7) (above) with the intention of reporting Tom’s belief about Cicero (i.e. Tully) that he is bald to someone who only knows Cicero under the name ‘Tully’. In this belief statement, the ‘that’-clause will refer to a Schifferian proposition with a degree of fineness comparable to that of the *Russellian* proposition *that Tully is bald*.

On the other hand, consider a different situation where the reporter correctly makes the *de re* statement (8) (see below) intending to report Tom’s belief about Tully (i.e. Cicero) that he is not bald to someone who only knows Cicero under the name ‘Cicero’. In this statement, the ‘that’-clause will refer to a Schifferian proposition with a degree of fineness comparable to that of the *Russellian* proposition *that Cicero is not is bald*.

(8) Tom believes that Cicero is not bald.

Since both *de re* statements in the considered situations are correct and since the Russellian proposition that Tully is bald is identical to the Russellian proposition that Cicero is bald, we must conclude that Tom believes and disbelieves the *same* Schifferian proposition. But how can he rationally do so?

Perhaps, Schiffer could reply by pointing out that here Tom's rationally believing and disbelieving the same Schifferian proposition does not clash with  $FC_{\text{Schiffer}}$  (p. 82), because this constraint only applies to *de dicto* beliefs while, in the case under discussion, only *de re* (dis)beliefs are involved.

In my opinion, this response would be satisfactory if Schiffer's account of belief-reporting utterances contained a theoretical analysis of the *de dicto/de re* distinction. But, as far as I know, nowhere in his book *The Things We Mean* nor in more recent works does Schiffer offer such an analysis. Additionally, the suggested response does not help Schiffer to solve the following more serious variant of the case just presented.

*Second drawback:*

Re-read the case illustrated in the "First Drawback" after replacing (8) with (9). *Mutatis mutandis*, you will arrive at the conclusion that Tom both believes and does not believe the *same* Schifferian proposition, which is a plain contradiction.

(9) Tom does not believe that Cicero is bald.

Following theorists of *de re* belief like Quine [1956], Schiffer could possibly remove the contradiction by negating the *de re* statement (9). But on what *theoretical* basis would he do this? Again, it seems that in order to overcome this kind of difficulties, Schiffer's account of belief-reporting utterances should be enriched with some substantive analysis of the *de dicto/de re* distinction.

*Third drawback:*

For Schiffer, the proposition denoted by the 'that'-clause contained in a belief-reporting utterance is determined by the context where the reporter makes that utterance (p. 81). Therefore, if Tom utters 'I believe that Cicero is bald', the clause 'that Cicero is bald' contained in his utterance will refer to a certain Schifferian proposition *that Cicero is bald*. If another subject (or Tom himself in a different context) utters (2) (see below), it could be the case that the clause 'that Cicero is bald' in the new utterance refers to a *different* Schifferian proposition *that Cicero is bald* (i.e. to a Schifferian proposition *that Cicero is bald* with a degree of fineness different from the one of the previous proposition). A further utterer of (2), on the other hand, could use the 'that'-clause to refer to a third Schifferian proposition *that Cicero is bald*. And so on.

(2) Tom believes that Cicero is bald.

Which of these Schifferian propositions *that Cicero is bald* does Tom believe? Given that all abovementioned utterances of (2) are intuitively correct, Schiffer is forced to maintain that Tom believes not one but many propositions *that Cicero is bald*. In

principle, the number of these propositions could even be *infinite* – considering that the number of possible utterers of (2) is infinite and so are (presumably) the possible degrees of fineness of a Schifferian proposition.

If so, taking for granted the (highly plausible) thesis according to which if a subject (consciously) believes something then she (consciously) believes to believe that thing, from the fact that Tom believes an infinite number of propositions that Cicero is bald it should follow that Tom consciously believes to believe them. But Tom is not aware of believing an *infinite* number of propositions that Cicero is bald (nor do we, the reporters, have the impression that he believes them): intuitively, Tom seems to believe (and he believes to believe) just *one* proposition that Cicero is bald.

### 3. Schiffer and the classical puzzles about belief

Having presented and discussed Schiffer's account of belief-reporting utterances, I am now going to illustrate his solutions to the classical puzzles of inconsistency, impossibility and contradiction, under the implicit assumption that the belief-reporting utterances involved in these puzzles are *de dicto* utterances. In particular, I shall focus my attention on the 'Paderewski' case, leaving it to the reader to determine Schiffer's solutions to the other classical cases, e.g. the 'Cicero'/'Tully' case and the 'Londres'/'London' case (determining the solutions to these cases is rather easy, considering that, as we have seen, Schiffer rejects the principle of Substitution and takes the principle of Translation to be inapplicable to some belief-reporting utterances).

#### 3.1 Classical puzzles of inconsistency

In Chapter 1, I proposed the following analysis of the 'Paderewski' case as a puzzle of inconsistency:

- (a) Peter is rational. [Assumption]
- (b) Peter mistakes Paderewski for two distinct people, a pianist and a politician. [Assumption]
- (c) Thinking of Paderewski as a pianist, Peter has the disposition to assert sincerely, on reflection and competently "Paderewski has musical talent". [Assumption]
- (d) Thinking of Paderewski as a politician, Peter has the disposition to assert sincerely, on reflection and competently "Paderewski has no musical talent". [Assumption]
- (e) Peter believes that Paderewski has musical talent. [From (c)]
- (f) Peter believes that Paderewski has no musical talent (i.e. Peter disbelieves that Paderewski has musical talent). [From (d)]
- (g) Peter believes that Paderewski has musical talent and Peter disbelieves that Paderewski has musical talent. [From (e) and (f)]
- (h) Peter is irrational. [From (g)]

Schiffer might solve the ‘Paderewski’ case of inconsistency by *blocking the move from (g) to (h)*. In fact, the two token ‘that’-clauses in (g) can be taken as referring to *different* Schifferian propositions *that Paderewski has musical talent* – say, to Schifferian propositions with a degree of fineness comparable to that of the Fregean propositions *that (the pianist) Paderewski has musical talent* and *that (the politician) Paderewski has musical talent* respectively. Notice also that, given (b), Peter fails to realize that the two Schifferian propositions represent the same thing, say the same state of affairs. The fact that Peter believes and disbelieves two different Schifferian propositions *that Paderewski has musical talent* without realizing they represent the same state of affairs is compatible with his being intuitively rational, in accordance with  $FC_{Schiffer}$  (p. 82).

### 3.2 Classical puzzles of impossibility

As a puzzle of impossibility, the ‘Paderewski’ case can be presented as follows:

- (l) Peter is rational. [Assumption]
- (m) Peter mistakes Paderewski for two distinct people, a pianist and a politician. [Assumption]
- (n) Peter has the disposition to assert sincerely, on reflection and competently “Paderewski is not Paderewski” thinking of Paderewski respectively as a politician and as a pianist. [Assumption]
- (o) Peter believes that Paderewski is not Paderewski. [From (n)]
- (p) Peter is irrational. [From (o)]

Schiffer can solve the ‘Paderewski’ case of impossibility by *blocking the move from (o) to (p)*. In fact, given (m), the Schifferian proposition denoted by the ‘that’-clause in (o) will be a *non-illogical* proposition – say, a proposition comparable to the Fregean proposition *that (the pianist) Paderewski is not (the politician) Paderewski*. This Schifferian proposition represents an illogical state of affairs, viz. Paderewski’s not being Paderewski; however, Peter fails to realize this because of his mistaking Paderewski for two different people. Now, the fact that Peter believes a non-illogical Schifferian proposition without realizing it represents something illogical is consistent with his being rational, taking for granted the following *Consequence of  $FC_{Schiffer}$* .

Consequence of  $FC_{Schiffer}$ : In no context of ascribing a *de dicto* belief, is it correct to claim that a rational subject believes (i) an illogical Schifferian proposition of the form *that a is F and a is not F*, or *that a is not identical to a*, or *that a is more/less F than a*, nor is it correct to claim that a subject believes (ii) a Schifferian proposition which she realises represents an *illogical* thing (say, state of affairs) such as *a’s being F and a’s not being F*, or *a’s not being identical to a*, or *a’s not being more/less F than a*.<sup>6</sup>

### 3.3 Classical puzzles of contradiction

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<sup>6</sup> Reasons for thinking that *Consequence of  $FC_{Schiffer}$*  is a consequence of  $FC_{Schiffer}$  can be drawn from the argument illustrated in Ch. 1, p. 22, n. 20.

Here is now the ‘Paderewski’ case of contradiction:

- (q) Peter is a non-reticent speaker. [Assumption]
- (r) Peter mistakes Paderewski for two distinct people, a pianist and a politician. [Assumption]
- (s) Thinking of Paderewski as a pianist, Peter has the disposition to assert sincerely, on reflection and competently “Paderewski has musical talent”. [Assumption]
- (t) Thinking of Paderewski as a politician, Peter does not have the disposition to assert sincerely, on reflection and competently “Paderewski has musical talent”. [Assumption]
- (u) Peter believes that Paderewski has musical talent. [From (s)]
- (v) Peter does not believe that Paderewski has musical talent. [From (t)]
- (w) Peter believes that Paderewski has musical talent and Peter does not believe that Paderewski has musical talent. [From (u) and (v)]
- (x) Contradiction!

Schiffer’s solution to this case presumably consists in *blocking the move from step (w) to step (x)*, on the grounds that the two ‘that’-clauses in (w) refer to *different* Schifferian propositions *that Paderewski has musical talent*.

The fact that, in Schiffer’s view, a *prima facie* contradictory utterance of (w) expresses something non-contradictory must not surprise the reader more than the fact that a given utterance of “He is bald and he is not bald” can express something non-contradictory: as we saw on p. 81, for Schiffer, ‘that’-clauses semantically work as indexicals, in the sense that their referent is determined by the context where the reporter makes her belief-attributing utterance.

It is instead more surprising, by the way, that Schiffer [2003, p. 86] allows the move from (w) to (w\*) on the basis of the following reasons.

[W]ouldn’t common sense regard (w\*) as a contradiction? I don’t think so. Uttered out of the blue, it would no doubt provoke a ‘come again?’ response. But, first, when we get to this level of complexity, it is not clear what philosophers should make of the reactions of ordinary speakers, and, secondly, I don’t see why the non-philosopher in whom the response was provoked shouldn’t be assuaged by the explanation that (w\*) is true because, after all, [Peter believes that Paderewski (the pianist) has musical talent but doesn’t believe that Paderewski (the politician) has musical talent].

(w\*) There is someone such that Peter does and does not believe that he has musical talent.

Schiffer’s quoted justifications perplex me: I hardly understand how the truth of (w\*) can be compatible with the principle of non-contradiction (at least if we take ‘S does not believe that *p*’ to be the negation of ‘S believes that *p*’). Also, taking into account that Peter believes and does not believe different Schifferian propositions *that Paderewski has musical talent*, which have a degree of fineness comparable to those of the Fregean

propositions *that (the pianist) Paderewski has musical talent* and *that (the politician) Paderewski has musical talent* respectively, I wonder what proposition the *only* ‘that’-clause in (w\*) refers to: one of the abovementioned two propositions or, if not, what else?

#### 4. Schiffer and the new puzzles about belief

Schiffer’s account of belief statements does not seem to have the resources to solve at least some of the new puzzles about belief presented in Chapter 2. I am going to show this using three paradigmatic puzzling cases illustrated in that chapter: the ‘Superman’/‘Clark Kent’ case; the colour error theorist case; and the ‘Bruce’ case. (It is possible that you, the reader, do not find these the most convincing cases among those illustrated in Chapter 2. No matter: you can repeat the same reasoning I am going to make here, using in their place your preferred cases among those presented in Ch. 2.)

*‘Superman’/‘Clark Kent’ case (Ch. 2, Section 1.4):*

In this case, Emily, a rational person who is aware that *Superman* is *Clark Kent*, has the disposition to assert sincerely, on reflection and competently “Superman flies” and “Clark Kent does not fly”. Given her verbal dispositions, it seems correct to ascribe to her (taking for granted Positive Disquotation, p. 39) the belief that Superman flies and the belief that Clark Kent does not fly.

So, taking for granted Schiffer’s account of belief statements, Emily believes the Schifferian proposition *that Superman flies* and disbelieves the Schifferian proposition *that Clark Kent flies*. Although these propositions differ, Emily realizes they represent the same state of affairs, i.e. Clark/Superman’s flying, since she knows that *Superman* is *Clark*. The fact that a rational subject believes and disbelieves different Schifferian propositions which she *realizes represent the same thing* violates part (ii) of FC<sub>Schiffer</sub> (p. 82). This poses a problem to Schiffer’s account (since, as we have seen, this account embodies FC<sub>Schiffer</sub>).

*The case of the colour error theorist (Ch. 2, Section 3.5):*

This is the case of Rob, a colour error theorist who, having seen a red pen on the table, naturally/automatically acquires the *ordinary* belief that the pen on the table is red, holding at the same time the *highly theoretical* belief that such a pen is not red (and of no colour at all), derived from his very particular conception of colours. So, according to Schiffer’s account, Rob should believe and disbelieve a Schifferian proposition *that the pen on the table is red*. Since there seems to be no way to draw a distinction here between the believed and the disbelieved Schifferian proposition *that the pen on the table is red*, we shall conclude that part (i) of FC<sub>Schiffer</sub> is falsified.

*Possible solutions to the ‘Superman’/‘Clark Kent’ case and the colour error theorist case:*

In Chapter 2, as a solution to the ‘Superman’/‘Clark Kent’ case, I considered the possible rejection of part (ii) of Frege’s Constraint while, as a solution to cases like the colour error theorist case, I suggested the introduction of *belief subsystems*, i.e. mental compartments which store token beliefs and which have certain specific property (p. 64).

An advocate of Schiffer’s account may actually exploit these suggestions and solve the ‘Superman’/‘Clark Kent’ case by rejecting part (ii) of FC<sub>Schiffer</sub>.<sup>7</sup> Additionally, in the light of Schiffer’s [ibid., p. 8] claim that “no other kind of proposition is as fine-grained as [a Schifferian proposition]”, she could possibly solve the colour error theorist case by making Schifferian propositions “sensitive” to belief subsystems in such a way that Rob believes and disbelieves two *different* Schifferian propositions *that the pen on the table is red* as a consequence of the fact that he believes that the pen is on the table and that the pen is not on the table from distinct subsystems.

It is not entirely obvious to me whether such a manoeuvre is performable (in particular, the one of making Schifferian propositions “sensitive” to subsystems). At any rate, it does not suffice to solve the following puzzle.

*The ‘Bruce’ case (Ch. 2, Section 5.3):*

The protagonist of the ‘Bruce’ case is Susan, a rational person who, having seen Bruce “double”, mistakes him for two *indiscernible* people both called ‘Bruce’. As a result, she comes to believe that Bruce is Bruce (i.e. that Bruce, either of the two, is identical to himself) and to believe that Bruce is not Bruce (i.e. that one of the two presumed Bruces is not identical to the other).

It is unclear how the (token) ‘that’-clauses contained in “Susan believes that Bruce is Bruce” and “Susan disbelieves that Bruce is Bruce” could refer to *different* Schifferian propositions, taking into account that the two presumed Bruces appear to Susan as indiscernible and that Susan believes that Bruce is Bruce and that Bruce is not Bruce from the *same* subsystem (for reasons explained in Ch. 2, pp. 63-64, 69). If Susan rationally and simultaneously believes and disbelieves the *same* Schifferian proposition, then part (i) of FC<sub>Schiffer</sub> is violated. Therefore, the ‘Bruce’ case poses a serious difficulty for Schiffer’s account of belief-reporting utterances.

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<sup>7</sup> I do not think, nevertheless, that this proposal would be embraced by Schiffer himself: in his article “A Problem for a Direct-Reference Theory of Belief Reports” [2006, pp. 366-367], he reckons the rejection of part (ii) of Frege’s Constraint to be “quite unclear”.

## Chapter 4

### Salmon, Braun and Saul

A conception of modes of presentation significantly different from Schiffer's and Frege's has been propounded by Nathan Salmon [1986, 1989]. Salmon is one of the most prominent defenders of (contemporary) Russellianism, the theory according to which sentences (viz. simple as well as belief sentences) express Russellian propositions, and proper names contribute to propositions solely with their bearer (*Millian Thesis* of names). For Salmon, modes of presentation (*guises* in his own terminology) therefore do not enter the *semantic content* of (i.e. the proposition semantically expressed by) sentences. Instead, they contribute to the truth-conditions of belief sentences and to the *pragmatic content* of (i.e. the proposition pragmatically conveyed by) their utterances. This twofold contribution of modes of presentation, in Salmon's view, suffices to solve the classical puzzles of inconsistency, impossibility and contradiction (Ch. 1) and to account for certain counterintuitive results of the Russellian semantics of belief reports (in particular, to explain why the inference "Tom believes that Cicero is bald. Cicero is Tully. Therefore, Tom believes that Tully is bald", which is valid according to the Russellian philosophers, is thought to be invalid by many rational people).

*Contra* Salmon, David Braun [1998, 2002], another supporter of Russellianism, has argued that the abovementioned counterintuitive results of the Russellian semantics of belief reports are not convincingly explained away by appealing to pragmatics, viz. by inserting modes of presentation (*ways of believing* in Braun's terminology) into the pragmatic content of belief-reporting utterances. Instead, a *psychological* explanation of those results is needed.

Braun's view is developed by Jennifer Saul [2007]. According to Saul, we need psychological explanations in order to account for the counterintuitive results of the Russellian semantics of belief reports and of simple sentences as well. These explanations involve modes of presentation conceived as *nodes of information* (something like mental files).

As it already emerges from these introductory considerations, Salmon, Braun and Saul take remarkable steps in the direction of a progressive “marginalization” of modes of presentation within the account of belief reports. Whereas in Frege’s and Schiffer’s views modes of presentation build up the semantic content of sentences, for Salmon they only enter the truth-conditions of belief sentences and the pragmatic content of their utterances without affecting their semantic content. In Braun’s and Saul’s accounts, modes of presentation are even divested of such a pragmatic role and (apart from entering the truth-conditions of belief sentences) they just serve to provide psychological explanations to the abovementioned counterintuitive results of Russellian semantics and psychological solutions to the puzzles about belief.

After reviewing Russellianism, this chapter will present Salmon’s, Braun’s and Saul’s accounts of belief reports. It will be shown how, by resorting to guises, Salmon [1986, 1989] is able to solve the classical puzzles about belief. I shall argue, on the other hand, that his account does not contain the instruments for resolving the new puzzles about belief illustrated in Chapter 2. Further doubts (besides Braun’s) will also be raised about Salmon’s thesis that modes of presentation routinely enter the pragmatic content of belief-reporting utterances.

A solution to some new puzzles about belief, viz. the ‘George Eliot’/‘Mary Ann Evans’ case and the ‘Superman’/‘Clark Kent’ case, is achieved within Braun’s and Saul’s account of belief reports, thanks to their rejection of part (ii) of Frege’s Constraint (as a result of which a rational subject is allowed to believe and disbelieve a Russellian proposition even in ways that she *realizes are ways of believing the same proposition*).

Saul’s conception of modes of presentation as nodes of information could also be exploited for solving other new puzzles like e.g. the judge case, the colour error theorist case and the latecomer student case (which, in contrast, remain unsolved within Braun’s account). However, some difficulties arise in connection with Saul’s solution to these and other puzzles. Moreover, a version of the ‘Bruce’ case seems unsolvable within her account, as well as within Braun’s and Salmon’s.

## 1. Russellianism

A terminological note, for a start: I shall call the semantics of simple and belief sentences presented in this section, which originates in the early works of Russell [1905, 1938, 1988a] and has been revived in the late seventies by David Kaplan [1989, 1989a], *Contemporary Russellianism* or more briefly *Russellianism* (other authors have called it, or parts of it, ‘Neo-Russellianism’ or ‘Naïve Russellianism’ or ‘Millianism’ or ‘Referentialism’). (Contemporary) Russellianism encompasses *Representational Russellianism* and *Pure Russellianism*:<sup>1</sup> the former is propounded by Russellian philosophers, like e.g. Salmon, Braun and Saul, who involve (non-semantic) modes of presentation in their accounts of belief reports; the latter (also called ‘No Way Naïve Russellianism’) is instead defended by Russellian philosophers who renounce modes of presentation, e.g. Sean Crawford [2004a] and Michael Thau [2002].<sup>2</sup>

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<sup>1</sup> I borrow the labels ‘Representational Russellianism’ and ‘Pure Russellianism’ from Crawford [2004a].

<sup>2</sup> Crawford’s purely Russellian view will be briefly examined in footnote 11 of this chapter. I shall instead leave out of consideration Thau’s view which, although interesting, does not provide specific contribution to the resolution to my new puzzles about belief.

Within Russellianism, a linguistic expression with respect to a given context of utterance can have at most three kinds of semantic values: referent or denotation; linguistic meaning or character; and content. *Referent* is the thing for which a (non-empty) singular term – ordinary proper name, simple demonstrative, singular personal pronoun, etc. – stands. *Denotation* is whatever uniquely exemplifies the property (or condition) expressed by the predicate ‘ $\varphi$ ’ occurring in the definite description ‘the  $\varphi$ ’. No other expressions apart from singular terms and definite descriptions refer or denote.

The *linguistic meaning* (or *character*) of a term is the rule/convention which, in a given context, determines the semantic content of that term – the label ‘character’ is usually reserved for terms whose content shifts from context to context (viz. indexicals), while ‘linguistic meaning’ is typically used with terms whose content remains fixed (e.g. predicates). Linguistic meaning is what expressions preserves through translation and what a speaker has to master in order to be a competent user of expressions.

Finally, the *semantic content* of a term is the thing the term expresses. Here below is a list of things that play the role of content for different kinds of expressions:

(Non-empty) singular terms: Their content is nothing but their referent.

Predicates: Their content is a property if the predicate has one place; or it is an  $n$ -place relation if the predicate has  $n$  places, with  $n > 1$ .

Quantifiers: Their content is a second-order property (i.e. a property of a property): *SOME* for the existential quantifier; *EVERY* for the universal quantifier.

Definite descriptions: Their content is a second-order denoting property, *THE  $\Phi$* .<sup>3</sup>

Sentences: Their content is a *Russellian proposition*, i.e. a structured proposition whose basic constituents are individuals, properties and relations. We can distinguish between two sorts of Russellian propositions: singular and general propositions. A Russellian proposition about an individual, i.e. containing an individual as a constituent, is *singular*; a non-singular proposition is *general*. General propositions include *descriptive* propositions, the latter being non-singular propositions which have at least one denoting property (*THE  $\Phi$* ) as a constituent.

For example, sentence (1) expresses the Russellian proposition (1p), which is a singular proposition, since it contains the individual Cicero. On the other hand, the Russellian proposition expressed by sentence (2) is general, because it contains no individual. More precisely, it is a descriptive proposition: the denoting property of *THE MFRO*, i.e. the property of *The most famous Roman orator*, is in fact included in it.

- (1) Cicero is bald.  
(1p) <Cicero, Baldness>

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<sup>3</sup> I am here taking for granted Kripke’s [1977] and Stephen Neale’s [1990] view according to which the semantic use of a definite description is identical to its attributive use (whereas the referential one is explained away pragmatically). *Contra* Russell [1905], I am also taking for granted Neale’s [1990], Brown’s [1992] and Stanley’s & Williamson’s [1995] view according to which definite descriptions are terms (instead of incomplete symbols).

- (2) The most famous Roman orator is bald.  
 (2p) <THE MFRO, Baldness><sup>4</sup>

Sentential connectives: Their content is either a property of a Russellian proposition or a relation between two Russellian propositions, viz. the property of *NEG* for negation and the two-place relations of *CONJ*, *DISJ*, *IMPL* and *BICON* for conjunction, disjunction, implication and biconditional respectively.

## 1.1 Belief reports

According to Russellian philosophers, the content of a belief report is a Russellian proposition having as constituents a believer, the two-place relation of Belief *B* and the Russellian proposition which is the referent of the ‘that’-clause occurring in the report. For example, report (3) expresses Russellian proposition (3p), where <Cicero, Baldness> is the referent of the clause ‘that Cicero is bald’.

- (3) Tom believes that Cicero is bald.  
 (3p) <Tom, B, <Cicero, Baldness>>

A belief report is true (in a context) if and only if the Russellian proposition this report expresses is true (in that context). So, for example, (3) is true if and only if (3p) is true, i.e. if and only if Tom stands in the relation of Belief, *B*, to the proposition <Cicero, Baldness>.

*Belief reports and substitution*:

Within the Russellian semantics of belief reports, the principles of Substitution and Generalized Substitution successfully apply to expressions, resulting in the validity of inferences like (Inf 1).

Substitution: The truth-value of a sentence ‘*p*’ does not change if a singular term ‘*T*’, occupying a given position in ‘*p*’, is replaced with another singular term which, in that position, has the same *referent* as ‘*T*’.

Generalized Substitution: The truth-value of a sentence ‘*p*’ does not change if an expression ‘*E*’, occupying a given position in ‘*p*’, is replaced with another expression which, in that position, has the same *semantic content* as ‘*E*’.

- (Inf 1)  
 (P1a) Tom believes that Cicero is bald.  
 (P1b) Cicero is Tully.  
 (P1c) The property of Baldness is the property of Shmaldness.  
 ∴ (C1) Tom believes that Tully is shmald.

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<sup>4</sup> This way of representing a general (viz. descriptive) proposition takes its cue from Braun [2002, p. 71].

This is not the case with belief reports containing a definite description in the ‘that’-clause. A report of the form (4) is susceptible of two interpretations: the *de dicto* (viz. narrow-scope) interpretation (4<sub>d</sub>) and the *de re* (viz. wide-scope) interpretation (4<sub>r</sub>).

- (4) *S* believes that the  $\varphi$  is *F*.
- (4<sub>d</sub>) *S* believes that  $\iota x(x \text{ is } \varphi \ \& \ x \text{ is } F)$ .
- (4<sub>r</sub>)  $\iota x(x \text{ is } \varphi \ \& \ S \text{ believes that } x \text{ is } F)$ .

Under the *de re* interpretation of (P2a) and (C2), inference (Inf 2) is valid. It is instead invalid under their *de dicto* interpretation.

- (Inf 2)
- (P2a) Tom believes that the most famous Roman orator was bald.
- (P2b) The most famous Roman orator is the Roman consul who wrote about friendship and old age.
- $\therefore$  (C2) Tom believes that the Roman consul who wrote about friendship and old age was bald.

It should be noted that the invalidity of (Inf 2) under the *de dicto* interpretation of (P2a) and (C2) does not show that Substitution or Generalized Substitution fail within this kind of interpretation. Rather, in this case, Substitution is *inapplicable* to definite descriptions (both within and without belief linguistic contexts), for this principle only applies to singular terms (i.e. terms whose content is identical to their referent) while definite descriptions are not *singular* terms. Generalized Substitution is also *inapplicable* in the case under discussion: principle only applies to expressions with the *same* content whereas the descriptions ‘the most famous Roman orator’ and ‘the Roman consul who wrote about friendship and old age’ express different denoting properties.

*Belief reports and translation:*

For Russellians, sentences (P3) and (C3) have the *same content*, in accordance with the intuition that (C3) translates (P3) and translation preserves linguistic meaning and so (in the case of non-indexical expressions) semantic content. Hence inference (Inf 3) is valid. Its validity is coherent with the principle of *Translation*: since (C3) translates (P3), this principle successfully applies to (P3), allowing the move from this sentence to (C3).

Translation: “If a sentence of one language expresses a truth in that language, then any translation of it into any other language also expresses a truth (in that other language).”  
[Kripke 1988, p. 114]

- (Inf 3)
- (P3) Pierre croit que Londres est jolie.
- $\therefore$  (C3) Pierre believes that London is pretty.

**1.2. Problems**

The Russellian semantics of belief reports faces some important obstacles, in particular the puzzles of inconsistency, impossibility and contradiction (Ch. 1), and the following problem which I shall call *anti-substitution intuition problem*: how can we explain away the wrong intuition (wrong for Russellians) held by many rational people that an inference like (Inf 4) is invalid?

- (Inf 4)  
(P4a) Tom believes that Cicero is bald.  
(P4b) Cicero is Tully.  
∴ (C4) Tom believes that Tully is bald.

## 2. Salmon

A solution to the puzzles about belief and to the anti-substitution intuition problem has been proposed by Nathan Salmon [1986, 1989]. Before illustrating Salmon's solution, I would like to present his Russellian account of belief reports, which crucially involves the notion of *guise*.

As far as I know, Salmon has never clearly stated what kind of objects guises are; he has only advanced some hypotheses (in particular, in *Frege's Puzzle*, p. 120 he affirms they could be propositions or sentences in the language of thought or mental files). What, instead, Salmon clearly identifies are the roles played by guises. Here below is a list of the most important roles played by them.

*(Modest) semantic role of guises:*

As a Russellian, Salmon maintains that a report like (3) expresses proposition (3p) and is true if and only if (3p) is true. The two-place relation of Belief *B* is analysed by Salmon in terms of the three-place relation *BEL*, i.e. the relation of the believer's *being disposed to inwardly/mentally assent to a proposition under a guise*. This analysis allows formulating the truth-conditions of (3) and (3p) as follows: *(3)/(3p) is true if and only if there is a guise under which Tom is disposed to inwardly assent (BELs) to <Cicero, Baldness>*.<sup>5</sup>

- (3) Tom believes that Cicero is bald.  
(3p) <Tom, B, <Cicero, Baldness>>

So, guises enter the truth-conditions of belief reports (without nevertheless entering their semantic content, i.e. the proposition semantically expressed by these reports).

*Guises as modes of presentation:*

Guises are modes of presentation of Russellian propositions. As such, they are subject to Frege's Constraint which, fashioned on Salmon's account of belief reports, can be formulated as follows:

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<sup>5</sup> Salmon [1989, p. 246].

FC<sub>Salmon</sub>: A rational subject cannot simultaneously be disposed to inwardly assent (BEL) and *dissent* to (*disBEL*, i.e. inwardly assent to the negation of) a Russellian proposition (i) under the same guise, or (ii) under different guises which the subject realizes are guises of the same proposition.<sup>6</sup>

*Pragmatic role of guises:*

Besides contributing to the truth-conditions of belief sentences, guises routinely enter the pragmatic content of their utterances: e.g. a sentence like (3) is routinely used to communicate (viz. *pragmatically convey*) the proposition expressed by (3\*), where  $m(\text{“Cicero is bald”})$  is the guise corresponding to the sentence “Cicero is bald”. However, in a few occasions, (3) could be used differently to communicate the proposition expressed by (3\*\*) or simply its semantic content, (3p).

- (3) Tom believes that Cicero is bald.
- (3\*) BEL(Tom, <Cicero, Baldness>,  $m(\text{“Cicero is bald”})$ )
- (3\*\*)  $\exists x$  BEL(Tom, <Cicero, Baldness>,  $x$ )
- (3p) <Tom, B, <Cicero, Baldness>>

The following examples suffice to illustrate these alternative uses. As a first example, suppose that, in order to report the beliefs held by Tom, who is disposed to sincerely assert “I believe that Cicero is bald, but I do not believe that Tully is bald”, Mary says: “Tom believes that Cicero is bald, but he does not believe that Tully is bald”. Incidentally, Mary’s statement is *intuitively de dicto*: she in fact reports Tom’s belief and non-belief using the same words that Tom would use. The first conjunct of this statement, i.e. (3), pragmatically conveys the proposition expressed by (3\*).

Consider now a situation in which, speaking to someone who only knows Cicero as ‘Tully’, Mary affirms (5). Mary is making in this case an *intuitively de re* statement, since she reports Tom’s belief using words that Tom would not use. The communicated proposition is now the one expressed by (3\*\*) or simply the semantic content of (5), i.e. (3p).

- (5) Tom believes that Tully is bald.

*Epistemic role of guises:*

In a passage of *Frege’s Puzzle* [1986, pp. 107-109], Salmon endorses Russell’s principle of acquaintance: he claims that apprehending a singular proposition entails acquaintance with its constituents (properties, relations and individuals). He also affirms that a subject becomes acquainted or familiar with an individual or a property or a relation through an ‘appearance’ or ‘guise’. Such a conception of guises as *modes of acquaintance with a Russellian proposition or a*

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<sup>6</sup> Frege’s Constraint is originally formulated in this way: a rational subject cannot simultaneously believe and disbelieve (i)  $a$  to be  $F$  under the same mode of presentation, or (ii) under different modes of presentation which the subject realizes are modes of presentation of the same thing. Salmon explicitly endorses Frege’s Constraint in “Illogical Belief” [1989, pp. 246, 257-258] and in “The Resilience of Illogical Belief” [2006, p. 370].

*constituent of it* is reasserted in “Illogical Belief” [1989, p. 246].<sup>7</sup>

Having illustrated the roles played by guises within Salmon’s account of belief reports, let us now see how guises can be exploited to solve the classical puzzles of inconsistency, impossibility and contradiction, and the anti-substitution intuition problem (p. 97).

## 2.1 Solution to the classical puzzles of inconsistency

Consider a paradigmatic puzzle of inconsistency presented in Chapter 1, the ‘Paderewski’ case:

- (a) Peter is rational. [Assumption]
- (b) Peter mistakes Paderewski for two distinct people, a pianist and a politician. [Assumption]
- (c) Thinking of Paderewski as a pianist, Peter has the disposition to assert sincerely, on reflection and competently “Paderewski has musical talent”. [Assumption]
- (d) Thinking of Paderewski as a politician, Peter has the disposition to assert sincerely, on reflection and competently “Paderewski has no musical talent”. [Assumption]
- (e) Peter believes that Paderewski has musical talent. [From (c)]
- (f) Peter believes that Paderewski has no musical talent. [From (d)]
- (g) Peter believes that Paderewski has musical talent and Peter believes that Paderewski has no musical talent. [From (e) and (f)]
- (h) Peter is irrational. [From (g)]

Taking for granted the truth-conditions assigned by Salmon to belief reports, this puzzle can be solved by *blocking the move from (g) to (h)*, thereby rejecting the principle of *Rationality*, which is indispensable to perform such a move.

Rationality: If a subject simultaneously believes that  $p$  and believes that  $\sim p$ , then she is irrational.

In fact, given assumptions (c) and (d), Peter is disposed to inwardly assent to the proposition <Paderewski, Having musical talent> under the guise corresponding to the sentence “The pianist Paderewski has musical talent” and to inwardly dissent to such a proposition under the guise corresponding to “The politician Paderewski has musical talent”. This entails – according to the truth-conditions of belief reports (p. 97) – that reports (e) and (f) are both true. Consequently,

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<sup>7</sup> In his article “Understanding Belief Reports” [1998, pp. 564-565], Braun observes that “most Russellians (including Salmon and Soames) hold that [the relation of belief] is *mediated*: one believes a proposition in virtue of standing in some significant psychological relation to a third entity [i.e. a guise] that determines the proposition believed”. But, if guises are *intermediary* entities, how can they also be modes of *acquaintance*? As Russell clearly stated, acquaintance is a *direct* relation: “I say that I am *acquainted* with an object when I have a direct cognitive relation to that object, that is when I am directly aware of the object itself” [1988b, p. 16]. Russell also explicitly excluded that this relation could be mediated: “I [...] see no reason to believe that, when we are acquainted with an object, there is in us something which can be called the ‘idea’ [mode of presentation or guise?] of the object [and which] become[s] a veil between us and the [object]” [1988b, p. 25]. Since Russell’s use of the word ‘acquaintance’ does not clearly match with Braun’s interpretation of Salmon, assuming that Braun’s interpretation is correct, I wonder what this word exactly means for Salmon.

their conjunction (g) is also true. But from the truth of (g) it does not follow, on the basis of  $FC_{\text{Salmon}}$  (p. 98), that Peter is irrational: as a consequence of assumption (b), Peter *takes the aforesaid guises as guises of different propositions*.

## 2.2 Solution to the classical puzzles of impossibility

Consider the ‘Paderewski’ case of impossibility:

- (l) Peter is rational. [Assumption]
- (m) Peter mistakes Paderewski for two distinct people, a pianist and a politician. [Assumption]
- (n) Peter has the disposition to assert sincerely, on reflection and competently “Paderewski is not Paderewski” thinking of Paderewski respectively as a pianist and as a politician. [Assumption]
- (o) Peter believes that Paderewski is not Paderewski. [From (n)]
- (p) Peter is irrational. [From (o)]

Salmon’s [1989] solution to this puzzle consists of *blocking the move from (o) to (p)*, thereby rejecting the following principle, which is indispensable to perform such a move.

Consequence of Rationality: If a subject  $S$  believes that  $p \& \sim p$ , or that  $a$  is not  $a$ , or that  $a$  is more/less  $F$  than  $a$ , then she is irrational.<sup>8</sup>

In fact, taking for granted the truth-conditions that Salmon assigns to belief reports (p. 97), report (o) is true: given assumption (n), Peter has the disposition to inwardly assent to the impossible (viz. illogical) proposition  $\langle \text{Paderewski}, \neq, \text{Paderewski} \rangle$  under the guise corresponding to “The pianist Paderewski is not the politician Paderewski”. On the other hand, due to assumption (m), Peter fails to realize that this guise presents an illogical proposition. Thus the fact of believing such a proposition does not make him irrational, coherently with the following *Consequence of  $FC_{\text{Salmon}}$*  and *contra* step (p).

Consequence of  $FC_{\text{Salmon}}$ : A rational subject cannot be disposed to inwardly assent to an illogical proposition of the form  $\langle a, \neq, a \rangle$  or of the form  $\langle \langle a, \text{Being } F \rangle, \text{CONJ}, \langle \langle a, \text{Being } F \rangle, \text{NEG} \rangle \rangle$  or of the form  $\langle a, \text{Being more/less } F \text{ than, } a \rangle$ , under a guise that the subject realizes is a guise of such an *illogical* proposition.<sup>9</sup>

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<sup>8</sup> I shall show here with an *ab absurdo* argument that the Consequence of Rationality (call it simply *Consequence*) is a consequence of the principle of Rationality (p. 99). Suppose (*ab absurdo*) that the Consequence is false whereas Rationality is true. In particular, suppose that the Consequence is false because (j)  $S$  believes that  $p \& \sim p$ ; but, if so, using the thesis that believing the conjunction entails believing the conjuncts, we immediately arrive at the conclusion that  $S$  believes and disbelieves that  $p$ , *contra* (the supposedly true) principle of Rationality. Alternatively, suppose that the Consequence is false because (jj)  $S$  believes that  $a \neq a$ ; on the other hand,  $S$  certainly also believes (about the relatum of  $\neq$ ) that  $a = a$ ; but then  $S$  both believes and disbelieves that  $a = a$ , *contra* Rationality. Finally, suppose that the Consequence is false because (jjj)  $S$  believes that  $a$  is more/less  $F$  than  $a$ ; but then  $S$  will both believe and disbelieve that  $a$  is  $F$ -at-a-given-degree, *contra* Rationality.

<sup>9</sup> Reasons for thinking that *Consequence of  $FC_{\text{Salmon}}$*  is a consequence of  $FC_{\text{Salmon}}$  (p. 98) can be drawn from the argument illustrated in Ch. 1, p. 22, n. 20.

### 2.3 Solution to the classical puzzles of contradiction

Let us, finally, consider the ‘Paderewski’ case of contradiction:

- (q) Peter is a non-reticent speaker. [Assumption]
- (r) Peter mistakes Paderewski for two distinct people, a pianist and a politician. [Assumption]
- (s) Thinking of Paderewski as a pianist, Peter has the disposition to assert sincerely, on reflection and competently “Paderewski has musical talent”. [Assumption]
- (t) Thinking of Paderewski as a politician, Peter does not have the disposition to assert sincerely, on reflection and competently “Paderewski has musical talent”. [Assumption]
- (u) Peter believes that Paderewski has musical talent. [From (s)]
- (v) Peter does not believe that Paderewski has musical talent. [From (t)]
- (w) Peter believes that Paderewski has musical talent and Peter does not believe that Paderewski has musical talent. [From (u) and (v)]
- (x) Report (w) is contradictory.

Salmon solves this puzzle by *blocking the move from (t) to (v)*, thereby rejecting *Negative Disquotation*, a principle which is indispensable to perform such a move.

Negative Disquotation: If a non-reticent subject *S* does not have the disposition to sincerely, on reflection and competently assert (or accept or assent to) sentence ‘*p*’, which lacks indexical or pronominal devices or ambiguities, then *S* does not believe that *p*.

The block of the move from (t) to (v) is a consequence of the truth-conditions assigned by Salmon to belief reports (p. 97), according to which (u) is true if and only if there is a guise under which Peter is disposed to inwardly assent to the proposition <Paderewski, Having musical talent>. In the ‘Paderewski’ case of contradiction, there is such a guise: given assumption (s), it is the guise corresponding to the sentence “The pianist Paderewski has musical talent”. Hence report (u) is true, while its negation (v) is consequently false despite step (t), *contra* Negative Disquotation.

It should be noted that, besides Negative Disquotation, the following principle, which I shall call *Luminosity of Non-Belief*, is also rejected by Salmon:

Luminosity of Non-Belief: If *S* believes that she (herself) does not believe that *p*, then *S* does not believe that *p*.

In fact, notwithstanding the falsity of (v), Peter is disposed to sincerely assert “I don’t believe that Paderewski has musical talent” thinking of Paderewski as a politician. This verbal disposition entails – using Positive Disquotation (p. 102), a principle that Salmon [1986, pp. 129-130] takes as irrefutable – that Peter (*falsely*) believes that he does not believe that Paderewski has musical talent, *contra* the Luminosity of Non-Belief.

Positive Disquotation: If a subject *S* has the disposition to sincerely, on reflection and competently assert (or accept or assent to) sentence '*p*', which lacks indexical or pronominal devices or ambiguities, then *S* believes that *p*.

Salmon's solution to the puzzles of contradiction (obtained by rejecting Negative Disquotation and Luminosity of Non-Belief) nevertheless raises the following problem.

*Negative belief-reporting intuition problem*:

According to Salmon's illustrated solution to the puzzles of contradiction, the inferences (Inf 5) and (Inf 6) are invalid. But why then do many rational people take these inferences as valid?

(Inf 5)

Tom, a non-reticent speaker, is not disposed to assert sincerely, on reflection and competently "Tully is bald".

∴ Tom does not believe that Tully is bald.

(Inf 6)

Tom is disposed to assert sincerely, on reflection and competently "I don't believe that Tully is bald".

∴ Tom does not believe that Tully is bald.

*Salmon's response*:

These rational people mistake the conclusion of (Inf 5) and (Inf 6), i.e. (6) (see below), for (6\*), the latter expressing the proposition *these* people routinely convey when they utter (6). Sentences (6) and (6\*) have different truth-conditions: the former is true if and only if there is *no* guise under which Tom is disposed to inwardly assent to <Cicero, Baldness>; the latter is true if and only if there is a guise under which Tom *is not* disposed to inwardly assent to <Cicero, Baldness>. Due to this difference, sentence (6\*), *unlike* (6), validly follows from the premises of (Inf 5) and (Inf 6).<sup>10</sup>

(6) Tom does not believe (i.e. *fails to believe*) that Tully is bald.

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<sup>10</sup> Salmon's solution to the negative belief-reporting intuition problem is actually more articulate than here presented; see "Illogical Belief" [1986, pp. 248-250] for more details. It is worth noticing that Salmon does not need to invoke the relation of Withholding Belief in order to solve this problem: he could more simply maintain, coherently with his view, that rational people who wrongly take inferences (Inf 5) and (Inf 6) as valid mistake the proposition semantically expressed by their conclusion for the proposition expressed by '~BEL(Tom, <Cicero, Baldness>, *m*("Tully is bald"))', which is pragmatically conveyed by such conclusion and which validly follows from their premises. As regards this proposal, see Saul 1998. A very different proposal to solve the negative belief-reporting intuition problem could be the following: *contra* Salmon, it could be suggested that the negative report '*S* does not believe that *p*' is ambiguous between '*S* fails to believe that *p*' and '*S* withholds belief from the proposition that *p*'; under the latter reading, the conclusion of (Inf 5) and (Inf 6) validly follows from their premises, in accordance with our pre-theoretical intuitions.

- (6\*) Tom *withholds belief* from (i.e. either disbelieves or suspends judgment on) the proposition that Tully is bald.<sup>11</sup>

## 2.4 Solution to the anti-substitution intuition problem

The anti-substitution intuition problem illustrated on p. 97 is explained away *pragmatically* by Salmon [1986, p. 114]. According to him, rational people who wrongly take an inference like (Inf 4) as invalid mistake the semantic content of utterances of (3) and (5) for the propositions routinely conveyed by them, i.e. the propositions expressed by (3\*) and (5\*). Sentence (5\*) does not in fact validly follow from (3\*) and “Cicero is Tully”.

(Inf 4)

(3) Tom believes that Cicero is bald.  
Cicero is Tully.

∴ (5) Tom believes that Tully is bald.

(3\*) BEL(Tom, <Cicero, Baldness>, *m*(“Cicero is bald”).

(5\*) BEL(Tom, <Cicero, Baldness>, *m*(“Tully is bald”).

## 2.5 Some doubts about Salmon

A number of arguments (which I will not examine in this dissertation) have been put forward by Braun [1998, 2002] and Saul [2007] in order to show, *contra* Salmon, that the anti-substitution intuition problem does not result from a confusion between what is semantically expressed and what is pragmatically conveyed. Some of their arguments also arouse the suspicion that *guises do not routinely enter the pragmatic content of belief-reporting utterances*.

In this section, I shall advance further reasons (*viz.* arguments based on communication involving ordinary speakers/listeners), closely related to Braun’s, for the conclusion above. More precisely, confining my attention on the ‘Cicero’/‘Tully’ case, I shall argue that the only proposition routinely communicated by intuitively *de dicto* utterances of (3) (p. 104) and intuitively *de re* utterances of (5) is simply the proposition they semantically express, i.e. (3p) – and not the proposition expressed by (3\*) or (3\*\*).

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<sup>11</sup> Salmon [1989, pp. 243-244]. Incidentally, a problem for Salmon (and for Russellian philosophers in general) arises in connection with the notion of Withholding Belief, and more precisely with the notion of *suspension of judgment*. Suppose that Tom sincerely asserts “Cicero is bald” and “Tully is not bald”; hence, according to Salmon’s truth-conditions of belief reports (p. 97), he believes and disbelieves the proposition <Cicero, Baldness>. Additionally, suppose that Tom suspends judgment on the sentence “Marcus is bald”, not realizing that *Cicero, Tully* and *Marcus* are the same person; from this it seems *prima facie* correct to infer that Tom suspends judgment on the proposition <Cicero, Baldness>. So, Tom believes, disbelieves and suspends judgment on the *same* proposition. But this is incompatible with the (at least *prima facie*) plausible thesis that: *a subject suspends judgment on [the proposition] that p only if he neither believes nor disbelieves that p*. In order to solve this problem, Salmon could simply reject this thesis about the suspension of judgment. Alternatively, by embracing a proposal of Sean Crawford [2004, 2004a], he could keep such a thesis, block the move from *S’s suspending judgment on sentence ‘p’* to *his suspending judgment on the proposition that p*, and instead maintain that *S’s suspending judgment on sentence ‘p’* just entails that *S believes that he (himself) suspends judgment on the proposition that p*. If so, in the case under discussion, Tom would believe and disbelieve <Cicero, Baldness> and he would also wrongly believe that he (himself) suspends judgment on this proposition, coherently with the abovementioned thesis about suspension of judgment.

- (3) Tom believes that Cicero is bald.
- (3\*) BEL(Tom, <Cicero, Baldness>,  $m$ ("Cicero is bald"))
- (3\*\*)  $\exists x$  BEL(Tom, <Cicero, Baldness>,  $x$ )
- (3p) <Tom, B, <Cicero, Baldness>>
- (5) Tom believes that Tully is bald.

*First objection:*

According to Salmon's view, intuitively *de re* utterances of (5) communicate either proposition (3p) or the proposition expressed by (3\*\*). On the other hand, some basic reasons lead us to think that the proposition routinely communicated by such utterances cannot be the one expressed by (3\*\*). First, it does not seem that an ordinary speaker could convey this proposition since, in general, *ordinary* speakers do not possess sophisticated notions such as BEL and guise, nor they have an opinion about the existence of guises.<sup>12</sup>

Second, if *ab absurdo* the proposition routinely conveyed by intuitively *de re* utterances of (5) was the one expressed by (3\*\*), communication between the speakers making such utterances and ordinary English competent listeners *would fail*, since *ordinary* listeners are likely unable to grasp propositions involving BEL and guises (I am here assuming that in order for communication to be *successful*, the listener must grasp the *very same* proposition communicated by the speaker). This conclusion, nevertheless, clashes with our intuition that communication between the abovementioned utterers and ordinary (English competent) listeners succeeds. In order to account for such an intuition, we must suppose that *de re* utterances of (5) routinely communicates something like (3p) – rather than sophisticated propositions like the one expressed by (3\*\*).

*Second objection:*

Intuitively *de dicto* utterances of (3) should also be taken to *routinely* communicate proposition (3p), rather than the proposition expressed by (3\*) as Salmon maintains. Ordinary speakers who make *de dicto* utterances of (3) do not convey the message that Tom believes (or rather BELs) that Cicero is bald under the guise corresponding to the sentence "Cicero is bald": unlike philosophers, *ordinary* speakers do not generally think that people *believe something under something else* (they simply think people believe things, and that is all). Hence utterers of (3) simply communicate the message that Tom believes that Cicero is bald, which, within a Russellian framework, is nothing but proposition (3p).

Also, if intuitively *de dicto* utterances of (3) *routinely* conveyed the proposition expressed by (3\*), *ordinary* (English competent) listeners of these utterances might fail to grasp the sophisticated proposition expressed by (3\*) (which in turn presupposes the grasp of the concept of believing something under something else), with the *counterintuitive* result that communication between these utterers and ordinary listeners of (3) would not succeed.

## 2.6 Salmon and the new puzzles about belief

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<sup>12</sup> This point is also made by Braun [1998, pp. 567-568].

Beyond the examined difficulties concerning the kind of information communicated by belief-reporting utterances, I think the major problems for Salmon’s account of belief reports come from the *new puzzles about belief* introduced in Chapter 2: none of them seems convincingly resolvable within his account. In this section, I shall show, in particular, that Salmon’s account of belief reports meets difficulties in solving two puzzles: Schiffer’s [1987] ‘George Eliot’/‘Mary Ann Evans’ case, here presented along with the related debate which occurred between Schiffer [2006, 2010] and Salmon [1989, 2006]; and the ‘Superman’/‘Clark Kent’ case, originating in Saul’s [1997; & Braun 2002] study on simple sentences.

*Schiffer’s ‘George Eliot’/‘Mary Ann Evans’ case:*

Jane is a rational person who knows that ‘George Eliot’ and ‘Mary Ann Evans’ are co-referential names. Having heard Ralph (who wrongly thinks these names do not co-refer) affirm “I believe that George Eliot was a man, but I don’t believe that Mary Ann Evans was a man”, Jane rationally comes to believe that Ralph believes that George Eliot was a man and to believe that Ralph does not believe that Mary Ann Evans was a man. From this, taking for granted Salmon’s account of belief reports and  $FC_{\text{Salmon}}$  (see below), we infer that Jane BELs and disBELs (i.e. BELs the negation of) the proposition (7p) under two different guises, say  $m_1$  and  $m_2$ , which she fails to realize are guises of the same proposition.

But actually there are no such guises. The only available candidates for  $m_1$  and  $m_2$  are the guises corresponding to the sentences “Ralph believes that George Eliot was a man” and “Ralph believes that Mary Ann Evans was a man”, which are not good candidates: since Jane knows that ‘George Eliot’ and ‘Mary Ann Evans’ co-refer, *she will realise they are guises of the same proposition, contra part (ii) of  $FC_{\text{Salmon}}$ .*

(7p) <Ralph, B, <Eliot, Having been a man>>

$FC_{\text{Salmon}}$ : A rational subject cannot BEL and disBEL (i.e. BEL the negation of) a Russellian proposition (i) under the same guise, or (ii) under different guises which the subject realizes are guises of the same proposition.

*Salmon’s reply to Schiffer’s ‘George Eliot’/‘Mary Ann Evans’ case:*

In response to Schiffer’s [1987, p. 474-475] case, Salmon [1989, pp. 267-268] maintains that although Jane knows that ‘George Eliot’ and ‘Mary Ann Evans’ co-refer, she mistakes the proposition <Eliot, Having Been a man> and so the proposition (7p) for *two distinct* propositions.<sup>13</sup> This is, for Salmon, the most plausible explanation for Jane’s *rationaly* taking the *quasi-contradictory* statement, made by Ralph, “I believe that George Eliot was a man, but I don’t believe that Mary Ann Evans was a man” as correct notwithstanding her knowing that ‘George Eliot’ and ‘Mary Ann Evans’ co-refer.

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<sup>13</sup> These two propositions could be e.g. Fregean thoughts or propositions pragmatically conveyed (in Salmon’s view) by the reports “Ralph believes that George Eliot was a man” and “Ralph believes that Mary Ann Evans was a man”, viz. those respectively expressed by:

BEL(Ralph, <Eliot, Having been a man>,  $m$ (“George Eliot was a man”));

BEL(Ralph, <Eliot, Having been a man>,  $m$ (“Mary Ann Evans was a man”)).

If so, Jane BELs and disBELs (7p) under two guises, respectively corresponding to the sentences “Ralph believes that George Eliot was a man” and “Ralph believes that Mary Ann Evans was a man”, which she *does not realize are guises of the same proposition*, coherently with FC<sub>Salmon</sub>.

*Schiffer’s second version of the ‘George Eliot’/‘Mary Ann Evans’ case:*

Schiffer acknowledges Salmon’s response. On the other hand, from Jane’s (dis)believing proposition (7p), Schiffer [2006, pp. 363-364] infers that she also *(dis)believes Eliot to be such that Ralph believes she was a man*, which is tantamount to say that she *(dis)believes something like proposition (8p)*.<sup>14</sup>

(8p) <Eliot, Being such that Ralph believes she was a man>

Now, consider FC\*, another version of Frege’s Constraint on which Salmon is committed:

FC\*: A rational subject can simultaneously believe and disbelieve *a* to be *F* only (i\*) thinking of *a* under different modes of presentation which she takes to be modes of presentation of distinct objects, or (ii\*) thinking of the property of *Being F* under different modes of presentation which she takes to be modes of presentation of distinct properties.<sup>15</sup>

It follows from Schiffer’s previous inference and FC\* that Jane can rationally believe and disbelieve proposition (8p) only thinking of Eliot under two different modes of presentation, say *m*<sub>3</sub> and *m*<sub>4</sub>, which she does not realize are modes of presentation of the same person (taking into account that she thinks of the property of *Being such that Ralph believes she was a man* under the same mode of presentation). On the other hand, the only available candidates for *m*<sub>3</sub> and *m*<sub>4</sub> are the modes of presentation corresponding to the names ‘George Eliot’ and ‘Mary Ann Evans’, which are not actually good candidates: Jane knows they are modes of presentation of the same person, *contra* FC\*.

*Salmon’s response and doubts about it:*

Salmon [1989, pp. 269-270; 2006, pp. 370-371] counters Schiffer’s second version of the ‘George Eliot’/‘Mary Ann Evans’ case by disallowing the move from *(dis)believing (7p)* to *(dis)believing Eliot to be such that Ralph believes she was a man*, i.e. *(dis)believing (8p)*.

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<sup>14</sup> The present analysis of *believing Eliot to be such that Ralph believes she was a man* in terms of *believing (8p)* takes its cue from Salmon’s “Illogical Belief” [1989, pp. 269-270]. In “The Resilience of Illogical Belief” [2006, p. 371] Salmon also proposes another analysis of the former notion in terms of *standing (on the part of Jane) in a 3-place belief relation to Eliot and the (complex) property of Being such that Ralph believes she was a man*. The two analyses are “nearly” equivalent; the only difference between them lies in the fact that while in the latter the individual Eliot and such a property are two distinct *relata* of a 3-place belief relation (which, incidentally, should not be confused with BEL), in the former they enter proposition (8p) as constituents, to the effect that the 3-place belief relation will be replaced by the customary 2-place belief relation (between Jane and (8p)).

<sup>15</sup> See Schiffer [2010, pp. 3-4].

- (7p) <Ralph, B, <Eliot, Having been a man>>  
 (8p) <Eliot, Being such that Ralph believes she was a man>

On the other hand, in Chapter 2 of this dissertation, I tried to show, using Schiffer's [2010] and my own arguments, that the reasons put forward by Salmon in order to disallow the move in question are unconvincing. (I will not recall here those reasons and arguments, given their complexity. The reader may find them in Section 1.2 of Ch. 2.)

*A third version of the 'George Eliot'/'Mary Ann Evans' case:*

In Section 1.3 of Chapter 2, I presented constraint FC\*\*, which differs from FC\* only in its involving the sentence form '*S* believes of *a* that she is *F*' instead of the sentence form '*S* believes *a* to be *F*'.

FC\*\*: A rational subject can simultaneously believe and disbelieve of *a* that it is *F* only (i\*\*) thinking of *a* under different modes of presentation which she takes to be modes of presentation of distinct objects, or (ii\*\*) thinking of the propositional matrix *that x is F* under different modes of presentation which she takes to be modes of presentation of distinct matrixes.

Taking for granted FC\*\*, Jane can rationally believe and disbelieve of Eliot that Ralph believes she was a man, i.e. believe and disbelieve proposition (7p),<sup>16</sup> only thinking of Eliot under two different modes of presentation, *m*<sub>3</sub> and *m*<sub>4</sub>, which she does not realize are modes of presentation of the same person (considering that she thinks of the propositional matrix <Ralph, B, <*x*, Having been a man>> under the same mode of presentation). But no candidate for *m*<sub>3</sub> and *m*<sub>4</sub> is actually available, taking into account that Jane knows that 'George Eliot' and 'Mary Ann Evans' co-refer.<sup>17</sup>

*Salmon's response and my doubts about it:*

Salmon [2006, pp. 372-373] solves the third version of the 'George Eliot'/'Mary Ann Evans' case by simply giving up FC\*\*.

But how can Salmon give up FC\*\* and keep at the same time the very similar constraint FC\*? More precisely, why is Jane allowed to rationally BEL and disBEL (7p) even without thinking of Eliot under two different modes of presentation which she does not realize are modes of presentation of the same person, whereas she is forbidden to BEL and disBEL (8p) because she does not have such modes of presentation? It seems to me that Salmon [2006] does not really provide a compelling answer to this question.

*The 'Superman'/'Clark Kent' case:*

<sup>16</sup> This analysis of *believing of Eliot that Ralph believes she was a man* in terms of *believing (7p)* is stated in different works of Salmon. See e.g. "The Resilience of Illogical Belief" [2006, pp. 369, 373].

<sup>17</sup> This version of the 'George Eliot'/'Mary Ann Evans' case differs from the first version on p. 105 in one respect: in the present version we are *separately* considering the modes of presentation of the individual Eliot and of the propositional matrix <Ralph, B, <*x*, Having been a man>>, while in the first version we considered *propositional modes of presentation*, viz. modes of presentation of the "whole" proposition <Ralph, B, <Eliot, Having been a man>>.

In her articles “Substitution and Simple Sentences” and “Simple Sentences, Substitutions, and Mistaken Evaluations” (the latter written with David Braun), Jennifer Saul points out that some rational people judge-true (and even believe-true) simple sentences like “Superman flies” and “Clark Kent does not fly” despite knowing that ‘Superman’ and ‘Clark Kent’ co-refer.<sup>18</sup> Taking for granted Saul’s discovery and supposing that Emily is one of these people, we can affirm that she rationally believes and disbelieves the proposition <Superman, Flying>. According to Salmon’s account of belief reports plus FC<sub>Salmon</sub> (p. 105), Emily should consequently BEL and disBEL <Superman, Flying> under two guises, say  $m_5$  and  $m_6$ , which she fails to realize are guises of the same proposition.

But actually there are no such guises. The only available candidates for  $m_5$  and  $m_6$  are in fact the guises corresponding to the sentences “Superman flies” and “Clark Kent flies” which are not good candidates: *contra* part (ii) of FC<sub>Salmon</sub>, Jane *realises these are guises of the same proposition*, since she knows that the names ‘Superman’ and ‘Clark Kent’ co-refer.

For reasons explained in Section 1.4 of Ch. 2, Salmon’s replies to Schiffer’s ‘George Eliot’/‘Mary Ann Evans’ case (first and second version) are ineffective against the simpler ‘Superman’/‘Clark Kent’ case.

In the past decade, David Braun [1998, 2002] and Jennifer Saul [2007, Appendix B] have proposed Russellian accounts of belief reports (viz. variants of Salmon’s account) which are capable of solving the ‘George Eliot’/‘Mary Ann Evans’ and the ‘Superman’/‘Clark Kent’ cases, thanks to their rejection of part (ii) of FC<sub>Salmon</sub>. In the next sections, I shall illustrate Braun’s and Saul’s accounts, along with their solutions to these (and other) puzzles about belief.

### 3. Braun

Like Salmon, David Braun is an advocate of Representational Russellianism (p. 93). He endorses most of Salmon’s claims about belief reports. In particular, he agrees that “there are different ways of grasping, and believing, a single proposition” [1998, p. 556] and he also agrees that

the binary belief relation can be, metaphysically speaking, “analyzed into” a *ternary* relation between a person, a proposition, and a way of believing. The binary relation is, in effect, an existential generalization of this ternary relation, in the following sense: *A* believes *p* iff (roughly) *A* believes *p* in some way or other. [Ibid., p. 565]

So, for Braun a sentence like e.g. (3), as well as the proposition (3p) semantically expressed by this sentence, is true if and only if (roughly) Tom believes <Cicero, Baldness> in (*via*) some way (of believing).

- (3) Tom believes that Cicero is bald.
- (3p) <Tom, B, <Cicero, Baldness>>

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<sup>18</sup> In Ch. 2, Section 1.4, I explained in more detail what Saul exactly maintains on this matter.

Some important differences exist, however, between Braun's and Salmon's accounts of belief reports, especially between their conceptions of modes of presentation: whereas Salmon has never stated what exactly guises are, Braun clearly identifies the objects playing the role of *ways of believing* and attributes to them some important features that Salmon's guises do not have.

*Ways of believing as mental states of having sentences in one's head:*

Ways of believing could be identified with certain mental states.

[...] Mental states [...] are (realized in human beings by) states of the brain or soul. They bear causal roles with respect to each other, and with respect to sensation and behavior; distinct mental states may (perhaps must) differ in their causal roles. [Ibid., p. 573]

[...] There is a further elaboration of this view that is convenient, vivid, and plausible (in my opinion). It identifies these mental states with states involving mental representations. On one view of this sort, to believe a proposition is to have in one's head (in the right way) a mental sentence [i.e. a sentence of the *language of thought*] that expresses that proposition. [...] Such a state, of having-sentence-S-in-one's-head, can have the causal role of a belief state. For convenience, I will say that if a person is in a mental state that involves a mental sentence, and that state has the right causal role for a belief state, then that sentence is in that person's belief box.

To simplify matters, let's assume that the mental sentences in a person's belief box are sentences of that person's natural language. [Ibid., pp. 574-575]

So, finally, for Braun, (3)/(3p) is true if and only if Tom's belief box stores some mental sentence that expresses the proposition <Cicero, Baldness>.

*Ways of believing play no pragmatic role:*

As I previously said, Braun [1998, 2002] has advanced a number of arguments (which I am not going to examine in my dissertation) *contra* Salmon's *pragmatic* solution to the anti-substitution intuition problem (p. 97). Some of Braun's arguments also lead us to think that ways of believing do not routinely enter the pragmatic content of belief-reporting utterances.

*Ways of believing as modes of presentation of a new kind:*

Ways of believing are modes of presentation of a new kind, inasmuch as they *do not satisfy part (ii) of Frege's Constraint*. In this connection, reconsider the original formulation of Frege's Constraint:

Frege's Constraint: A rational subject cannot simultaneously believe and disbelieve (i) *a* to be *F* under the same mode of presentation, or (ii) under different modes of presentation which she realizes are modes of presentation of the same thing.

Fashioned on Braun's account of belief reports, this constraint can be reformulated as follows:

The belief box of a rational subject cannot simultaneously store (i\*) the sentences '*a* is *F*' and '*a* is not *F*', or (ii\*) the sentences '*a* is *F*', '*b* is not *G*' along with the sentences '*a* is *b*' and 'Being *F* is being *G*'.

Some counterexamples have been put forward by Braun [2006, p. 378] in order to show that *part (ii\*) of this reformulation of Frege's Constraint is false*. A subject may have in her belief box the premises and the negation of the conclusion of (Inf 7), and still be rational. She could have good reasons for taking (P7a) as true and (C7) as false: e.g. she could "not pause to consider the identity [(P7b)] long enough to notice its logical consequences" [Braun & Saul 2002, p. 17].

(Inf 7)

(P7a) Clark Kent went into a phone booth and Superman came out.

(P7b) Superman is Clark Kent.

∴ (C7) Clark Kent went into a phone booth and Clark Kent came out.

As a second counterexample to part (ii\*), consider a reporter whose belief box stores the premises of (Inf 4) and the negation of its conclusion. Such a reporter

can have excellent (though misleading) evidence for thinking that [(P4a), (P4b) and the negation of (C4)] are all true. Her evidence could be so strong that she would be rationally justified in believing that [(C4)] is *not* a logical consequence of [(P4a) and (P4b)] even if, in fact, Russellianism is true and [(C4)] *is* a logical consequence of [(P4a) and (P4b)]. In circumstances like these, she can rationally believe that [(P4a), (P4b) and the negation of (C4)] are all true, even if they cannot be. [1998, p. 586].

(Inf 4)

(P4a) Tom believes that Cicero is bald.

(P4b) Cicero is Tully.

∴ (C4) Tom believes that Tully is bald.

According to Braun, cases of rational people who take as invalid inferences like (Inf 4) or (Inf 7) (which Russellian philosophers consider valid) should not surprise the reader more than cases like the following:

Philosophers [...] think that the argument forms '*P*, therefore *P* or *Q*' and '*Q*, therefore if *P* then *Q*' are valid. Beginning logic students are rational and understand these arguments, but often think they are invalid; they sometimes have instances of their premises and the negations of their conclusions in their belief boxes. We theorists can provide evidence for the validity of these arguments, but beginners are unaware of that evidence. The beginners' unawareness of this evidence allows them to rationally hold illogical beliefs. [Braun 2006, pp. 377-378]

So, part (ii) of Frege’s Constraint, or rather its analogue (ii\*) (p. 110), is rejected by Braun. Then, *modes of presentation* (viz. *ways of believing*) will presumably be defined in terms of part (i) of Frege’s Constraint only, which, fashioned on Braun’s account, can be so formulated (and enriched):

FC<sub>Braun</sub>: The belief box of a rational subject cannot simultaneously store the sentences ‘*p*’ and ‘ $\sim p$ ’ (or any sentence of the form ‘*p* &  $\sim p$ ’ or ‘*a* ≠ *a*’ or ‘*a* is more/less *F* than *a*’).

### 3.1 Braun and the puzzles about belief

Interestingly, the rejection of part (ii) of Frege’s Constraint allows Braun to solve Schiffer’s ‘George Eliot’/‘Mary Ann Evans’ and the ‘Superman’/‘Clark Kent’ cases. In the latter case, Emily can rationally believe and disbelieve the proposition <Superman, Flying> in ways that – *contra* the *rejected* part (ii) of Frege’s Constraint – she realizes are ways of believing the same proposition. More precisely, she can believe and disbelieve it by having in her belief box the sentences “Superman flies” and “Clark Kent does not fly” along with the sentence “Superman is Clark Kent” without, for this reason, being irrational.

Similarly, in the ‘George Eliot’/‘Mary Ann Evans’ case, Jane believes and disbelieves the proposition <Ralph, B, <Eliot, Having been a man>> by virtue of having in her belief box the sentences “Ralph believes that George Eliot was a man” and “Ralph does not believe that Mary Ann Evans was a man”. Since part (ii) of Frege’s Constraint has been rejected, she can rationally do so even though her belief box stores the sentence “George Eliot is Mary Ann Evans”.<sup>19</sup>

So, Braun’s account of belief reports, unlike Salmon’s, allows us to solve the ‘George Eliot’/‘Mary Ann Evans’ and ‘Superman’/‘Clark Kent’ cases. These advantages are nevertheless counterbalanced by some difficulties, if ways of believing are subject to constraint FC<sub>Braun</sub>: this constraint has an unexpectedly large number of counterexamples, some even originating in the classical puzzles about belief. In what follows, I shall illustrate such counterexamples.

*The ‘Paderewski’ case of inconsistency:*

Reconsider the ‘Paderewski’ case of inconsistency presented on p. 99. Plausibly, Braun’s solution to this case goes as follows: Peter can rationally believe and disbelieve the same Russellian proposition, <Paderewski, Having musical talent>, because he does so under *different* ways of believing, viz. by having in his belief box two *non-contradictory* sentences, say (9) and (10).

- (9) The pianist Paderewski has musical talent.
- (10) The politician Paderewski has no musical talent.

It should be noted, on the other hand, that Peter also has the disposition to assert sincerely (11) and (12), besides (9) and (10). In order to account for such a disposition, we (presumably) need to suppose that Peter is in the belief states of having sentences (11) and (12) in his head:

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<sup>19</sup> As regards the second version of the ‘George Eliot’/‘Mary Ann Evans’ case (p. 106 of this chapter), Braun [2006, p. 376] endorses Salmon’s solution (p. 106). He will therefore block the move from *(dis)believing that Ralph believes that George Eliot was a man* to *(dis)believing Eliot to be such that Ralph believes she was a man*.

these states are responsible for prompting him to assert the natural language sentences (11) and (12). From Peter's being in such states it follows – according to what is stated by Braun [1998] in the passage reported on p. 109 of this chapter – that Peter's belief box will store the mental sentences (11) and (12). But these sentences are contradictory; so,  $FC_{\text{Braun}}$  is violated.<sup>20</sup>

- (11) Paderewski has musical talent.
- (12) Paderewski has no musical talent.

*A case with de re belief:*

Suppose that Mary, who knows that 'Cicero' and 'Tully' co-refer, reports the beliefs held by Tom in the 'Cicero'/'Tully' case by saying "Tom believes that Cicero is bald, but he does not believe that Tully is bald". Thus, coherently with Braun's view, Mary's belief box will store sentences (13) and (14), in addition to (15).

- (13) Tom believes that Cicero is bald.
- (14) Tom does not believe that Tully is bald.
- (15) Cicero is Tully.

On the other hand, by reporting in another situation Tom's belief about Cicero that he is bald to a person who only knows Cicero as 'Tully', Mary affirms "Tom believes that Tully is bald". (Whereas the former was an intuitively *de dicto* report, this is evidently a *de re* report.) At this point, Mary's belief box will also store the mental sentence

- (16) Tom believes that Tully is bald,

which contradicts (14). The fact that her belief box stores two contradictory sentences contravenes  $FC_{\text{Braun}}$  (p. 111).

Additionally, Braun's account of belief reports encounters difficulties with new puzzles about belief e.g. the colour error theorist case, the judge case and the latecomer student case.

*The case of the colour error theorist (Ch. 2, Section 3.5):*

The protagonist of this case is Rob, a colour error theorist who, having seen a red pen on a table, naturally/automatically acquires the ordinary belief that the pen on the table is red, holding at the same time the highly theoretical belief that the (same) pen is not red (and is of no colour at all) drawn from his very special conception of colours.

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<sup>20</sup> The conclusion that Peter has (11) and (12) in his belief box also follows from another of Braun's claim contained in the passage reported on p. 109 of this chapter: since Peter believes and disbelieves the proposition <Paderewski, Having musical talent>, he must have in his belief box two sentences which respectively express this proposition and its negation; the mental sentences in question are (very likely) (11) and (12). It is worth noticing that an advocate of Braun's account cannot convincingly counter the proposed counterexample to  $FC_{\text{Braun}}$  by maintaining that Peter believes and disbelieves <Paderewski, Having musical talent> by virtue of having in his belief box the mental sentences "Paderewski<sub>1</sub> has musical talent" and "Paderewski<sub>2</sub> has no musical talent": unless Peter is a philosopher, he will not draw the sophisticated distinction between the mental names 'Paderewski<sub>1</sub>' and 'Paderewski<sub>2</sub>'; so such names will not occur in any sentence stored in his belief box.

Taking for granted Braun's account on belief reports, Rob will believe and disbelieve the Russellian proposition *that the pen on the table is red* in the same way, viz. by having in his belief box two *contradictory* mental sentences, "The pen on the table is red" and "The pen on the table is not red" (which prompts him to assert the corresponding natural-language sentences). This, on the other hand, falsifies FC<sub>Braun</sub>.

*The judge case (Ch. 2, Sections 3.1 and 3.2):*

Mr. Justice Bennett is uncertain whether or not to condemn a person, Jack, and, because of this, he starts feeling an inner conflict. I argued in Ch. 2, Section 3.2, that a necessary condition for Mr. Justice Bennett's having such a conflict is his believing (at more than 50%) that Jack should be condemned and that Jack should not be condemned. If so, in such a case, Mr. Bennett's belief box will store the mental sentences "Jack should be condemned" and "Jack should not be condemned", *contra* FC<sub>Braun</sub>.

*The case of the latecomer student (Ch. 2, Section 4.6):*

A student, Sam, is in a hurry with the preparation of an exam. He consequently starts reading a number of books, rapidly storing a large quantity of information. Due to the rapidity with which he proceeds, Sam fails to notice that such information contains two contradictory bits even though these bits are presented in the same way. Since Sam takes at face value (viz. he believes) all stored information, he comes to have in his belief box two contradictory sentences, with the result that FC<sub>Braun</sub> will be falsified.

### 3.2 An additional doubt about Braun

In his article "Cognitive significance, Attitude Ascriptions, and Ways of Believing Propositions", Braun affirms that

there is a plausible distinction between (on the one hand) proposition P, and (on the other hand) a belief state in virtue of which an agent believes proposition P. [...]

Once this distinction between a belief state and proposition is made, it raises the possibility of there being several distinct belief states such that being in any of one of them is sufficient for believing the proposition. These belief states would differ from each other in the ways that such belief states typically do, for example, in causal role, but they would all result in the agent's believing the same proposition. We could then plausibly say that each of the belief states is a distinct way to believe proposition P.

Let us take for granted what is stated in this passage and let us suppose that Tom, who is unaware of the fact that *Cicero* is *Tully*, asserts both "Cicero is an orator" and "Tully is an orator". What prompts Tom's assertions are his belief states that Cicero is an orator and that Tully is an orator. These states have the same content, i.e. proposition <Cicero, Being is an orator>. Nonetheless, (for Braun) they are distinct, since their causal role differs: the former state prompts Tom to assert "Cicero is an orator" while the latter prompts him to assert "Tully is an orator".

In my opinion, some difficulties arise with this view of belief states. Suppose that Tom, who never knew of Cicero (i.e. Tully) before time  $t_1$ , acquires at  $t_1$  the belief that Cicero is an

orator (to the effect that at that time he also acquires the disposition to assert “Cicero is an orator” without nevertheless having yet the disposition to assert “Tully is an orator”). Then, at a later time  $t_2$ , he also acquires the belief that Tully is an orator (so starting to have the disposition to assert “Tully is an orator”). Now, sentence (17) is true; however (on the basis of the aforesaid suppositions) the name ‘Cicero’ in this sentence is *not* substitutable *salva veritate* with the name ‘Tully’. But how can this be justified by Braun compatibly with his endorsement of Russellianism, according to which: Substitution never fails; proper names solely contribute to propositions with their referent; and modes of presentation do not enter the semantic content of belief reports?<sup>21</sup>

(17) Tom is at  $t_1$  in the belief state that Cicero is an orator.

Notice also that, whereas in (17) ‘Cicero’ is not substitutable *salva veritate* with ‘Tully’, such a substitution is always performable in (18). From this it follows that sentence (19) does not entail sentence (20). But how can the blocking of this move be *intuitively* justified?

(18) Tom believes at  $t_1$  that Cicero is an orator.

(19) Tom believes at  $t_1$  that Tully is an orator.

(20) Tom is at  $t_1$  in the belief state that Tully is an orator.

My impression is that advocates of Russellianism are committed on the claim that Substitution successfully applies in (18) as well as in (17). If so, *the belief state that Tully is an orator is nothing but the belief state that Cicero is an orator*. (Of course, some explanation must be provided in order to account for Tom’s and our wrong intuition that these states are distinct; it should also be explained why at  $t_1$  Tom’s belief state that Cicero, i.e. Tully, is an orator prompts Tom to assert “Cicero is an orator” without prompting him to assert “Tully is an orator”.)<sup>22</sup>

#### 4. Braun & Saul, and Saul

In their article “Simple Sentences, Substitutions, and Mistaken Evaluations”, David Braun & Jennifer Saul resort to the notion of *mental file* in order to solve a version of the anti-substitution intuition problem affecting simple sentences (the original version of the problem, about belief reports, has been presented on p. 97 of this chapter).<sup>23</sup> More recently, in her book *Simple*

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<sup>21</sup> A problem for Braun (and for the Russellians in general) in some respects similar to this is raised by Fine [2007, pp. 74-78].

<sup>22</sup> I will attempt to explain this in Ch. 6, Section 3.3. Alternatively, an advocate of Braun’s account could perhaps suggest that, in this account, there is *no* belief state having the Russellian proposition *that Cicero* (i.e. *Tully*) *is an orator* as content, to the effect that sentences (17) and (20) are both untrue. The correct representation of Tom’s belief state at  $t_1$  is rather given by a sentence like

Tom is at  $t_1$  in the belief state of having the mental sentence “Cicero is an orator” in his head where ‘Cicero’ *within quotation* is not substitutable *salva veritate* with ‘Tully’. I confess I find this maneuver for safeguarding Russellianism rather artificial. Sentence (17) seems to me a quite natural way to *correctly* represent Tom’s belief state at  $t_1$ .

<sup>23</sup> Besides Saul and Braun, the notion of file has been used, for different purposes, by e.g. John Perry [1993a], Graeme Forbes [1990] and François Récanati [2011].

*Sentences, Substitution, and Intuitions* [2007, Appendix B], Saul has introduced something analogous to mental files, the *nodes of information*, for resolving the (original) anti-substitution intuition problem concerning belief reports. As a result of this manoeuvre, an account of belief reports different from Braun's has emerged. The peculiarity of Saul's account lies in the fact that *the sentences within the belief box of a subject are gathered into special sub-boxes (mental files) or around nodes (of information)*.

A terminological note: since I do not see any reason, relevant for what I shall argue in this section, for distinguishing the notion of node from that of file, in what follows I shall just use the familiar term and the corresponding notion of 'mental file' (instead of those of 'node of information').

*Mental files:*

Let's assume that humans have two sorts of *mental representation*: sentences in a language of thought and images. The former have structures similar to those of natural language sentences. For convenience, we shall assume that your language of thought is English. Images, on the other hand, have non-linguistic structures. They represent objects and events in some way similar to maps or photographs or movies.

We'll assume that a person believes a proposition if (and maybe only if) he has a mental sentence in his head that functions in the appropriate belief-like way. Whenever a person has a sentence in his head that functions in the belief-like way, we will say that the sentence is in his *belief box*. Similarly, a person entertains a proposition if (and perhaps only if) he has a mental sentence in his head that functions in the appropriate entertainment-like way (different from the belief-like way). Whenever a person has a sentence in his head which functions in this way, we will say that he has that sentence in his *entertainment box*. We will also assume that every subject maintains at least one file for each person about whom that subject has beliefs. These files are collections of mental sentences containing one of the person's names. These sentences are causally related to each other in a particularly intimate way. For instance, if a person consults a file, then the sentences in it become more "active", though some may become more active than others. Consequently, it becomes easier for those sentences to enter that person's entertainment box; moreover, the more active sentences become easier to entertain than the less active ones. [Braun & Saul 2002, pp. 23-24]

Braun's & Saul's notion of mental file shares important features with Braun's way of believing. In particular, files *do not also routinely enter the pragmatic content of statements*, and they are modes of presentation of a new kind which do not satisfy part (ii) of Frege's Constraint.

*Mental files as modes of presentation of a new kind:*

Frege's Constraint (p. 109), with mental files in the role of modes of presentation, can be reformulated as follows:

A rational subject cannot maintain (i\*) any file simultaneously storing the sentences 'a is F' and 'a is not F', or (ii\*) any pair of files one storing the sentence 'a is F' and the other

storing the sentence ‘ $b$  is not  $G$ ’ if her belief box stores (somewhere) the sentences ‘ $a$  is  $b$ ’ and ‘Being  $F$  is being  $G$ ’.

*Part (ii\*) of this constraint is explicitly rejected by Braun & Saul in the following passage of their article:*

We all know about Superman’s double life. Thus all of us have the sentence ‘Superman is Clark’ somewhere in our belief boxes. Nevertheless, Superman/Clark’s double life gives us good reason to maintain two distinct files on him, one containing ‘Superman’ sentences and one containing ‘Clark’ sentences. Files of the former sort contain sentences like ‘Superman wears a red cape’ and ‘Superman fights for truth, justice, and the American way’. Files of the latter sort contain ‘Clark Kent wears glasses’ and ‘Clark Kent works for the *Daily Planet*’. A given person’s ‘Superman’ file may attribute properties to Superman/Clark that her ‘Clark’ file fails to attribute, e.g., her ‘Superman’ file may contain ‘Superman flies’ while her ‘Clark’ file may not contain ‘Clark flies’. A typical speaker may routinely make additions and subtractions to one file without making the corresponding additions and subtractions to the other. For instance, if she reads ‘Superman saved a person who fell off a cliff’ in a reliable newspaper, she deposits this sentence in her ‘Superman’ file, but not her ‘Clark’ file. Moreover, she does *not* (typically) add the corresponding ‘Clark’ sentence to her ‘Clark’ file. [Braun & Saul 2002, p. 19]

Having rejected part (ii) of Frege’s Constraint, what constraint will files be subject to? Even though nothing explicit is said in this regard by Saul and Braun & Saul, it could be supposed that files are subject to part (i) of Frege’s Constraint, which, adapted to Saul’s account of belief reports, would be reformulated (and enriched) as follows:

FC<sub>Saul</sub>: A rational subject cannot maintain a file storing the sentences ‘ $a$  is  $F$ ’ and ‘ $a$  is not  $F$ ’ simultaneously (or store anywhere in her belief box a sentence of the form ‘ $a$  is  $F$  and  $a$  is not  $F$ ’ or ‘ $a \neq a$ ’ or ‘ $a$  is more/less  $F$  than  $a$ ’).

#### **4.1 Saul and the puzzles about belief**

Thanks to the rejection of part (ii) of Frege’s Constraint, Saul’s account of belief reports with files is able to solve the ‘Superman’/‘Clark Kent’ case: Emily can rationally believe and disbelieve the proposition <Superman, Flying> by virtue of having the sentences “Superman flies” and “Clark Kent does not fly” in two distinct files of her belief box, which she *realizes are files about the same person* since she has in her belief box the sentence “Superman is Clark Kent”.

A solution in terms of files is also possible for Schiffer’s ‘George Eliot’/‘Mary Ann Evans’ case: Jane believes and disbelieves the proposition <Ralph, B, <Eliot, Having been a man>> by having in her ‘*Ralph*’ file the sentences “Ralph believes that George Eliot was a man” and “Ralph does not believe that Mary Ann Evans was a man”. Jane can rationally do so and

have simultaneously the sentence “George Eliot is Mary Ann Evans” somewhere in the belief box, thanks to the rejection of part (ii) of Frege’s Constraint.<sup>24</sup>

Additionally, Saul’s account, unlike Braun’s, does not run into difficulties with the ‘Paderewski’ case of inconsistency. As regards this case, I argued on pp. 111-112 that, because of his asserting “Paderewski has musical talent” and “Paderewski has no musical talent” and his believing and disbelieving the proposition <Paderewski, Having musical talent>, Peter has in the belief box two *contradictory* mental sentences, “Paderewski has musical talent” and “Paderewski has no musical talent”, so contravening FC<sub>Braun</sub> (p. 111). However, in Saul’s account, these sentences are stored in *distinct* files about Paderewski, say ‘*the pianist Paderewski*’ file and the ‘*the politician Paderewski*’ file. The fact that distinct files separately store contradictory mental sentences is consistent with FC<sub>Saul</sub>.

Difficulties for Saul’s account *plus* FC<sub>Saul</sub> arise, however, in other (classical and new) puzzles about belief.

### *The judge case:*

We have seen on pp. 112-113 that new puzzles about belief like the colour error theorist case, the judge case and the latecomer student case pose a problem to Braun’s account of belief reports: the belief boxes of their protagonists store pairs of contradictory sentences, *contra* FC<sub>Braun</sub>.

A solution to these cases could, in principle, be reached in Saul’s account by maintaining, coherently with FC<sub>Saul</sub>, that *such contradictory sentences are stored into distinct files*. For example, in the judge case, Mr. Justice Bennett believes and disbelieves the proposition <Jack, Having to be condemned> by having the contradictory mental sentences “Jack should be condemned” and “Jack should not be condemned” in *distinct* files, one corresponding Mr. Bennett’s “judicial perspective” on the Jack’s case and the other corresponding to his “humanitarian perspective” on the same case.

Such a solution presupposes, on the other hand, a significant change in the conception of files. A file has been introduced as a collection of mental sentences about one object presenting it in a certain way. On the basis of this characterisation, the aforesaid contradictory sentences about Jack, both containing the name ‘Jack’ and presenting him in the *same* way, should be stored in the *same* file of Mr. Bennett. If, on the contrary, we want such sentences to be “split up” into *distinct* files, we need to change the characterisation of a file in such a way that it “embodies” certain properties of the notion of belief subsystem introduced in Ch. 2, pp. 63-64 (as we saw, two contradictory pieces of information presented in the same way *cannot* be stored in the same belief subsystem if the believer is not disposed to conjoin these pieces and believe their conjunction).

But even with this change in the characterisation of files, the proposed solution to the judge case meets a problem. Suppose that Mr. Bennett’s belief box also includes the sentences “Jack should be condemned in the New York City Criminal Court” and “Jack should not be condemned in the New York City Criminal Court”. Reasonably, these sentences will be stored not only in Mr. Bennett’s files about Jack but also in another file of him, his file about NYC. Now, in order to avoid a falsification of FC<sub>Saul</sub> due to the possible presence of these two contradictory sentences in the same file, we must suppose that Mr. Bennett maintains *two files about NYC*, which separately store the sentences “Jack should be condemned in the New York

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<sup>24</sup> This solution to the ‘George Eliot’/‘Mary Ann Evans’ case takes its cue from Saul’s solution to an analogous case proposed in *Simple Sentences, Substitution, and Intuitions* [2007, p. 163].

City Criminal Court” and “Jack should not be condemned in the New York City Criminal Court”. On the other hand, how can the fact of maintaining these files be *intuitively* justified? Whereas there might be an intuitive justification for thinking that Mr. Bennett maintains two files about the Jack’s case (given his viewing this case from two different “perspectives”, a judicial and a humanitarian one), there seem to be no *intuitive* grounds, in this specific case, for the claim that Mr. Bennett also maintains *two* files about NYC.

*A case with de re belief:*

A similar problem arises in the case with *de re* belief presented on p. 112. In that case, Mary makes the intuitively *de dicto* report “Tom does not believe that Tully is bald”, whereas in a different situation she reports Tom’s belief of Cicero that he is bald using the intuitively *de re* sentence “Tom believes that Tully is bald”. As a result, Mary’s belief box will store the mental sentences “Tom believes that Tully is bald” and “Tom does not believe that Tully is bald”. Both these contradictory sentences will be stored into ‘Tom’ file, so contravening to  $FC_{Saul}$ .

I wonder by virtue of what *intuitive* reason an advocate of Saul’s account could argue, coherently with  $FC_{Saul}$ , that Mary maintains two files about Tom (instead of just one), which separately store the aforesaid contradictory sentences.

*The ‘Paderewski’ case of impossibility:*

In this further case (presented in Section 2.2 of this chapter), Peter sincerely asserts the sentence “Paderewski is not Paderewski” with the intention of referring to two different Paderewskis but *de facto* referring to the same. Hence, he rationally believes the proposition  $\langle \text{Paderewski}, \neq, \text{Paderewski} \rangle$  by virtue of having the illogical sentence “Paderewski is not Paderewski” in his belief box. But this yields a violation of both  $FC_{Braun}$  and  $FC_{Saul}$ .<sup>25</sup>

An advocate of Saul’s account could possibly solve this puzzle by introducing a modification in her account: she could maintain that a subject not only believes propositions by virtue of having mental sentences expressing those propositions in his belief box and possibly in a file, but he can also *believe Russellian propositions by “coordinating” their constituents with files*. For example, it could be maintained that in the ‘Paderewski’ case of impossibility, Peter believes the proposition  $\langle \text{Paderewski}, \neq, \text{Paderewski} \rangle$  by having the mental sentence “Paderewski is not Paderewski” in his belief box and *by coordinating either occurrence of Paderewski in this proposition with a particular file*. At this point, Peter’s apparent irrationality (due to his believing such an illogical proposition) would be explained away thanks to his coordinating the two occurrences of Paderewski within this proposition with two *different* files, ‘the pianist Paderewski’ file and ‘the politician Paderewski’ file. (If, on the contrary, both occurrences of Paderewski were coordinated with the *same* file, the conclusion that Peter is irrational would follow.)

Besides introducing a further change in the conception of file, this proposal reveals that files by themselves are not sufficient to solve the puzzles of impossibility: the relation of *coordination* holding between a constituent of a believed Russellian proposition and a file is also needed. At any rate, it does not seem that even this manoeuvre allows a convincing solution to the following puzzle of impossibility.

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<sup>25</sup> I previously argued in footnote 20 *contra* the possibility of solving this kind of problem by introducing two mental names ‘Paderewski<sub>1</sub>’ and ‘Paderewski<sub>2</sub>’.

*The 'Bruce' case of impossibility:*

Reconsider the perfectly symmetrical universe devised by Fine [2007] and described in Section 5.3 of Ch. 2, with Susan at the centre of the universe and the two imaginary Bruces (symmetrically) located in its hemispheres (the two Bruces are imaginary since there is actually only one Bruce, whom Susan mistakes for two). Now, Susan sincerely affirms “Bruce is not Bruce” intending to refer to the two *indiscernible* Bruces (while she refers *de facto* to only one individual). Notwithstanding her being intuitively rational, Susan believes the proposition  $\langle \text{Bruce}, \neq, \text{Bruce} \rangle$  by virtue of having in her belief box the impossible mental sentence “Bruce is not Bruce”, *contra* FC<sub>Saul</sub>.

According to the modified conception of files, Susan can rationally believe the aforesaid illogical proposition provided that she coordinates the two occurrences of Bruce in it with *different* files. On the other hand, if files are just collections/sets of mental sentences and sets are identified by their elements, there will not be in this case two distinct files: given the perfect symmetry of Fine’s devised universe, the *very same list of mental sentences* is “associated” by Susan to the two presumed Bruces; hence *only one* file is coordinated with both occurrences of Bruce in  $\langle \text{Bruce}, \neq, \text{Bruce} \rangle$ . But if Susan maintains only one file about Bruce, her *rationaly* believing such an illogical proposition remains unexplained.

In conclusion, although – I suspect – the notion of file (among the possible candidates for the role of a mode of presentation) is one of the most convincing, considerable work must be done in order to make such a notion capable of solving the new puzzles about belief. At any rate, it is important to note that such a result can only be reached *if the notion of a file embodies certain crucial features of the notion of belief subsystem, and files are supplemented with coordination*. So, files *alone* are not sufficient to solve the new puzzles about belief.

## Chapter 5

### Fine

In Chapters 3 and 4, we examined Schiffer's and Saul's accounts of belief reports involving modes of presentation respectively conceived as Schifferian propositions and mental files. We saw that these accounts are able to solve the kind of new puzzles about belief exemplified by the '*Superman*'/'*Clark Kent*' case by giving up part (ii) of Frege's Constraint and possibly to solve the kind of new puzzles exemplified by the *judge case* and the *colour error theorist case* by "embodying" in Schifferian propositions and mental files certain crucial features of belief subsystems, the new device introduced in Ch. 2, pp. 63-64. This manoeuvre, nevertheless, does not suffice for solving a third kind of new puzzles, exemplified by the '*Bruce*' case. A different device, introduced by Kit Fine in his book *Semantic Relationism* [2007], is required and suffices to solve this case: *coordination*.

Coordination is a semantic relation, viz. "the very strongest relation of synonymy or being semantically the same",<sup>1</sup> that in Fine's philosophy first emerges as an essential ingredient for the solution to a puzzle about variables originating with Russell [1938, § 3]. This puzzle, which Fine [2007, pp. 7-9, 38, 39] calls the *antinomy of the variable*, can be formulated as follows. Consider two variables, 'x' and 'y', which range over the same domain of individuals, say the domain of all real numbers.

- (a) The formulas ' $x > x$ ' and ' $x > y$ ' are *semantically different*, i.e. they have a different *semantic role*:<sup>2</sup> "the variables 'x' and 'x' [in the former formula]

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<sup>1</sup> Fine [2007, p. 5].

<sup>2</sup> "I do not have in mind some technical notion [of semantic role] of the kind that one might find in formal semantics but a non-technical notion whose application may already be taken to be implicit in our understanding of a given language or symbolism. For in any meaningful expression, there is something conventional – having to do with the actual symbols or words used – and something nonconventional – having to do with the representational function of those symbols or words. And 'semantic role' is just my term for this essentially nonconventional aspect of a meaningful expression" [ibid., p. 7].

take “coordinated” values whereas the variables ‘ $x$ ’ and ‘ $y$ ’ [in the latter] take their values independently of one another” [ibid., p. 39].

- (b) If the formulas ‘ $x > x$ ’ and ‘ $x > y$ ’ are semantically different, then so are the pairs of variables ‘ $x$ ’, ‘ $x$ ’ and ‘ $x$ ’, ‘ $y$ ’.
- (c) If the pairs of variables ‘ $x$ ’, ‘ $x$ ’ and ‘ $x$ ’, ‘ $y$ ’ are semantically different, then so are the variables ‘ $x$ ’ and ‘ $y$ ’.
- (d) But the variables ‘ $x$ ’ and ‘ $y$ ’ are not semantically different: e.g. “the variable ‘ $x$ ’ in the context of the formula ‘ $x > 0$ ’ plays the same semantic role as the variable ‘ $y$ ’ in the context of the formula ‘ $y > 0$ ’” [ibid., p. 8].

Fine’s solution to this puzzle begins by locating an ambiguity in the notion of semantic role (and so in the notion of semantic difference). According to him, when we talk about the semantic role of an expression, we have to distinguish between its *intrinsic* and *extrinsic* semantic features.

The intrinsic semantic features of an expression, in contrast to its extrinsic semantic features, do not concern its semantic relationship to [viz. its being “coordinated” with or, on the contrary, its being “independent” of] other expressions. [...] Likewise, the intrinsic semantic features of a pair of expressions will consist of those semantic relationships between the expressions which do not concern their semantic relationship to yet further expressions. [Ibid., p. 22]

The *intrinsic* (i.e. non-relational) semantic features of the variable ‘ $x$ ’ are the *same* as those of the variable ‘ $y$ ’:

the variable ‘ $x$ ’ in the context of the formula ‘ $x > 0$ ’ plays the same semantic role as the variable ‘ $y$ ’ in the context of the formula ‘ $y > 0$ ’. [Ibid., p. 8 ]

On the contrary, the *extrinsic* (i.e. relational) semantic features of the variable ‘ $x$ ’ differ from those of the variable ‘ $y$ ’:

[f]or ‘ $x$ ’, when paired with ‘ $x$ ’, has the same semantic role as ‘ $x$ ’, ‘ $x$ ’ whereas ‘ $y$ ’, when paired with ‘ $x$ ’, does not have the same semantic role as ‘ $x$ ’, ‘ $x$ ’. [Ibid., p. 22]

The *intrinsic* (i.e. non-relational) semantic features of the *pair* of variables ‘ $x$ ’, ‘ $x$ ’ also differ from those of the pair of variables ‘ $x$ ’, ‘ $y$ ’:

the variables ‘ $x$ ’ and ‘ $x$ ’ take “coordinated” values whereas the variables ‘ $x$ ’ and ‘ $y$ ’ take their values independently of one another. [Ibid., p. 39]

From these considerations about intrinsic and extrinsic semantic features of variables, the following thesis emerges:

- (\*) If the intrinsic semantic features of the pairs of variables ‘ $x$ ’, ‘ $x$ ’ and ‘ $x$ ’, ‘ $y$ ’ differ, then the *extrinsic (but not the intrinsic)* semantic features of the variables ‘ $x$ ’ and ‘ $y$ ’ differ.

Take thesis (\*) for granted and return to the puzzle of the antinomy of variable. As regards this puzzle, Fine points out that

in asserting [in step (d) that the variables ‘x’ and ‘y’ do not semantically differ, i.e. that the semantic role of ‘x’ and ‘y’ is the same, we only wish to assert that their intrinsic semantic features are the same; and in asserting [in steps (b) and (c) that the pairs of variables ‘x’, ‘x’ and ‘x’, ‘y’ semantically differ, i.e.] that the semantic roles of ‘x’, ‘y’ and ‘x’, ‘x’ are different, we only wish to assert that their intrinsic semantic features are different. [Ibid., pp. 22-23]

This clarification along with thesis (\*) finally yields Fine’s solution to the puzzle of the antinomy of variable, which consists of *denying step (c)*. So, for Fine, the intrinsic semantic difference between the variable-pairs ‘x’, ‘x’ and ‘x’, ‘y’ (consisting of their respectively taking “coordinated” and “independent” values) does not imply an intrinsic semantic difference between the variables ‘x’ and ‘y’; it just implies an *extrinsic* semantic difference between them.

It is worth noticing that, as a consequence of rejecting (c), the following step, obtained by merging (b) and (c), is also rejected:

If there is an intrinsic semantic difference between the formulas ‘ $x > x$ ’ and ‘ $x > y$ ’, then there is an intrinsic semantic difference between the variables ‘x’ and ‘y’.

The rejection of this step shows that *compositionality* as it is usually conceived (viz. as only concerning the *intrinsic* semantic features of single expressions) is given up by Fine: the semantic role of the formula ‘ $x > y$ ’ is *not* a function of the semantic roles of the variables ‘x’ and ‘y’ (otherwise, *contra* what he maintains, ‘ $x > y$ ’ would have the same semantic role as ‘ $x > x$ ’, given that the variables ‘x’ and ‘y’ have the same semantic role). The relation of “independence” holding between the pair ‘x’, ‘y’ is indeed also relevant to the semantic role of ‘ $x > y$ ’.<sup>3</sup>

The introduction of the semantic relations of “coordination” (call it *positive coordination*) and “independence” (call it *negative coordination*)<sup>4</sup> plus the rejection of compositionality form the two cornerstones of *semantic relationalism* (or *relational semantics*), the new account of meaning that from variables Fine extends to every

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<sup>3</sup> Fine [2007, p. 26] formulates compositionality (as it is usually conceived) in the following way: “[...] the ‘meaning’ (or semantic value) of an expression E [is] a function of the meanings of its component expressions  $E_1, E_2, \dots, E_m$ ”. Surprisingly, Fine’s formulation of compositionality, unlike its standard formulation (Ch. 1, p. 10), does not include the *mode of composition* of E as a further ingredient, besides the meanings of  $E_1, E_2, \dots, E_m$ , to yield the meaning of E. I wonder if, by taking compositionality to be a function from the meanings of the parts *plus their mode of composition* (or *syntactic structure*) to the meaning of the whole, the semantic difference between the formulas ‘ $x > x$ ’ and ‘ $x > y$ ’ could be explained (in accordance with the standard formulation of compositionality) as follows: although the variables ‘x’ and ‘y’ have the same semantic role, the formulas ‘ $x > x$ ’ and ‘ $x > y$ ’ semantically differ because their syntactic structure differs. As an alternative strategy to safeguard compositionality, one might possibly argue that the semantic difference between ‘ $x > x$ ’ and ‘ $x > y$ ’ affects not the semantic role of the variables ‘x’ and ‘y’ but another “level” of their meaning, viz. their *conventional aspect* – the distinction between conventional aspect and semantic role (or non-conventional aspects) of a meaningful expression is drawn in footnote 2.

<sup>4</sup> The terms ‘positive coordination’ and ‘negative coordination’ are from Fine [2007, pp. 56-57]. Unlike Fine, who generally uses the terms ‘coordination’ and ‘uncoordination’ as synonyms of ‘positive’ and ‘negative coordination’ respectively, I will use the term ‘uncoordination’ to only mean lack of both positive and negative coordination.

kind of expressions of natural language, exploiting the relation of *representing as the same*: two token expressions are said to be *positively coordinated* if and only if they represent their Russellian content as the same.<sup>5</sup> For example, the pair of token names – viz. tokens of the same name used in the same way – ‘Cicero’, ‘Cicero’ are positively coordinated, since they represent their Russellian content and referent, i.e. the individual Cicero, as the same; instead, the pair of names ‘Cicero’, ‘Tully’ are negatively coordinated, since they represent him differently. In Fine’s account of meaning, the relation of (positive or negative) coordination enters the semantic content of single sentences/statements and of their sequences, giving rise to *coordinated propositions* and *coordinated sequences of propositions* respectively, and it also enters the truth-conditions of belief reports in ways that will be later specified in this chapter.

Besides providing a general overview of semantic relationism (Sections 1, 2), this chapter will explore *relational* solutions to the puzzles about belief (Sections 3-5). Interestingly, all puzzles of impossibility including the ‘Bruce’ case plus most puzzles of inconsistency (among which the ‘Superman’/‘Clark Kent’ case) are solved using coordination. On the other hand, new puzzles of inconsistency like the colour error theorist case are hardly resolvable within Fine’s semantics; more importantly, no solution seems available for the puzzles of contradiction. This lack of solution to these puzzles is actually an indication of a serious problem for semantic relationism: the truth-conditions assigned by Fine to belief reports allow a report like “Peter believes that Paderewski has musical talent and Peter does not believe that Paderewski has musical talent” (made with the intention of referring to two different Paderewskis but *de facto* referring to the same person) to be correct, yielding a *violation of the principle of non-contradiction* at the level of semantic content of this report. Possible proposals to solve this problem will be explored in this chapter and then rebutted as unconvincing. As I shall argue in Section 6, even the resort to the notion of *token proposition*, introduced by Fine in his recent article “Comments on Scott Soames’ ‘Coordination Problems’”, does not suffice to eliminate the contradiction; moreover, it raises new difficulties.

## 1. Semantic relationism

In this section, I shall present semantic relationism as an account of the semantic content of terms, simple sentences/statements and sequences of terms or sentences/statements (leaving to Section 2 the presentation of the relational semantics of belief reports). I shall first reconstruct the “skeleton” of semantic relationism, subsequently moving to the investigation of the foremost ingredients of this account, coordination and non-compositionality.

### 1.1 Skeleton of the theory<sup>6</sup>

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<sup>5</sup> Here and in the continuation of this dissertation, I shall use the phrase ‘Russellian proposition/content’ to indicate the standard Russellian proposition/content overviewed in Ch. 4, Section 1. For emphasis, sometimes I shall attach as a prefix the adjective ‘standard’ to this phrase.

<sup>6</sup> This section takes its cue from Fine [2007, Ch. 2, Section F].

As we have seen, Fine distinguishes between an intrinsic or non-relational component (call it *intrinsic content*) and an extrinsic or relational component (call it *extrinsic content*) of the semantic content of an expression.

Intrinsic content of a term: It is solely its Russellian content (individual, property, relation).

For example, the intrinsic content of the name ‘Cicero’ is the individual Cicero. The intrinsic content of the one-place predicate ‘is Roman’ is the property of Being Roman. The intrinsic content of the two-place predicate ‘admires’ is the relation of Admiration.

Intrinsic content of a sentence/statement *not* including terms with the same intrinsic content: It is solely its Russellian content (Russellian proposition).

For instance, the intrinsic content of the statement “Cicero is Roman” is the singular proposition <Cicero, Being Roman>. On the other hand, the intrinsic content of the statement “Cicero admires Tully”, which includes two names, ‘Cicero’ and ‘Tully’, *with the same intrinsic content*, the individual Cicero, is *not* the Russellian proposition <Cicero, Admiration, Cicero> (I will say soon what the intrinsic content of this statement is).

Extrinsic content of a token term, ‘a’, included in a piece of discourse which also contains another token term, ‘b’, with the same intrinsic content as ‘a’: It is the relation of (positive or negative) coordination between ‘a’ and ‘b’.<sup>7</sup>

For example, consider a piece of discourse containing two tokens of the name ‘Cicero’ used in the same way. The extrinsic content of either token is the relation of *positive* coordination between these token names (since ‘Cicero’, ‘Cicero’ used in the same way represent Cicero as the same individual). On the other hand, consider a piece of discourse containing the names ‘Cicero’ and ‘Tully’. The extrinsic content of ‘Cicero’ is here the relation of *negative* (i.e. non-positive) coordination between ‘Cicero’ and ‘Tully’ (given that these names do not represent Cicero as the same individual).

Intrinsic content of a *pair* of token terms (belonging to the same piece of discourse), ‘a’, ‘b’, with the same intrinsic content: It is a pair of occurrences of the intrinsic content of ‘a’ and ‘b’ plus the relation of (positive or negative) coordination between ‘a’ and ‘b’.

For example, the intrinsic content of the name-pair ‘Cicero’, ‘Cicero’ (where the two tokens of ‘Cicero’ are used in the same way) is the *positively coordinated pair* <<Cicero, Cicero>,  $C^+$ >, formed by the pair <Cicero, Cicero> plus the relation of positive coordination,  $C^+$ , holding between the two tokens of ‘Cicero’. The intrinsic content of the name-pair ‘Cicero’, ‘Tully’ is the *negatively coordinated pair* <<Cicero, Cicero>,  $C^-$ >, where  $C^-$  is the relation of negative coordination holding between these two names. Let us move now from names to sentences/statements: the

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<sup>7</sup> The notion of extrinsic content is actually more sophisticated than here presented: it generally consists of a *coordination-scheme* [ibid., pp. 55-56] rather than a single coordination link. For our purposes, however, the suggested characterisation suffices.

intrinsic content of the statement-pair “Cicero is Roman”, “Tully is an orator” is the negatively coordinated pair of propositions

$\langle\langle\langle\text{Cicero, Being Roman}\rangle, \langle\text{Cicero, Being an orator}\rangle\rangle, C^-\rangle,$

consisting of the Russellian propositions  $\langle\text{Cicero, Being Roman}\rangle$  and  $\langle\text{Cicero, Being an orator}\rangle$  plus the relation of negative coordination  $C^-$  between the names ‘Cicero’ and ‘Tully’. The intrinsic content of the statement-pair “Cicero is Roman”, “Cicero is an orator” (where, again, the two tokens of ‘Cicero’ are used in the same way) is instead the positively coordinated pair of propositions

$\langle\langle\langle\text{Cicero, Being Roman}\rangle, \langle\text{Cicero, Being an orator}\rangle\rangle, C^+\rangle,$

with  $C^+$  holding between the two tokens of ‘Cicero’.

Intrinsic content of a sentence/statement including terms with the same intrinsic content: It is the Russellian proposition expressed by this statement plus the relation of (positive or negative) coordination between such terms.

For example, the intrinsic content of the statement “Cicero admires Cicero” (where, as usual, the two tokens of ‘Cicero’ are used in the same way) is the *positively coordinated proposition*

$\langle\langle\text{Cicero, Admiration, Cicero}\rangle, C^+\rangle,$

formed by the Russellian proposition  $\langle\text{Cicero, Admiration, Cicero}\rangle$  plus the relation of positive coordination between ‘Cicero’, ‘Cicero’. The intrinsic content of “Cicero admires Tully” is the *negatively coordinated proposition*

$\langle\langle\text{Cicero, Admiration, Cicero}\rangle, C^-\rangle,$

with  $C^-$  holding between ‘Cicero’ and ‘Tully’.

## 1.2 Non-compositionality

As we have just seen, for Fine, the intrinsic contents of “Cicero admires Cicero” and “Cicero admires Tully” are respectively

$\langle\langle\text{Cicero, Admiration, Cicero}\rangle, C^+\rangle$   
 $\langle\langle\text{Cicero, Admiration, Cicero}\rangle, C^-\rangle.$

On the other hand, the intrinsic content of the single names ‘Cicero’ and ‘Tully’ is the same, i.e. the individual Cicero. Hence compositionality as it is usually conceived (*Intrinsicality*) is given up.<sup>8</sup>

Intrinsicality: The intrinsic content of a linguistic expression is a function of the intrinsic contents of its parts.

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<sup>8</sup> I actually pointed out in footnote 3 that compositionality is usually formulated in a way that slightly differs from Fine’s Intrinsicality.

On the other hand, Compositionality more generally conceived (*Compositionality Proper*) still holds.

Compositionality Proper: The intrinsic content of a linguistic expression is a function of the intrinsic contents of its parts plus the relation of (positive or negative) coordination (if any) among these parts.<sup>9</sup>

### 1.3 Coordination

Coordination has been so far characterised as the relation of *representing as the same*. The purpose of this section is to elucidate such a relation more carefully and deeply. In particular, I shall examine intuitive and more “technical” characterisations of coordination among expressions of natural language (proper names, indexicals, anaphors, predicates) and among the “objects” (viz. occurrences of individuals and properties and relations in Russellian propositions) to which these expressions “correspond”. Furthermore, I shall cast doubt on the thesis that semantic content incorporates coordination and on the thesis that coordination is an equivalence relation. Finally, I shall show why coordination cannot be a good candidate for a mode of presentation.

*Coordination among proper names (intuitive characterisation):*

[...] even though there be no [intrinsic] semantic difference [i.e. no difference in terms of intrinsic content] between the names ‘Cicero’ and ‘Tully’, there should be a[n intrinsic] semantic difference between the pairs of names ‘Cicero’, ‘Cicero’ and ‘Cicero’, ‘Tully’. There should, in other words, be semantic relationship that holds between ‘Cicero’ and ‘Cicero’ and yet does not hold between ‘Cicero’ and ‘Tully’. But what might this relationship be? In the case of variables, we could appeal to the evident fact that the variables ‘*x*’ and ‘*x*’ take “coordinated” values whereas the variables ‘*x*’ and ‘*y*’ take their values independently of one another. But in the case of names, the semantic role of each co-referential name is already fixed by its referent and so talk of “coordination” or “independence” would appear to be out of place.

If one attempts to say what this relationship between the names might be, then one is tempted to say something along the following lines. The names ‘Cicero’ and ‘Cicero’ in the identity-sentence “Cicero = Cicero” both represent the same object, as do the names ‘Cicero’ and ‘Tully’ in the identity “Cicero = Tully”. But the first pair of names represents the object *as the same* whereas the second pair does not. In the first case, as opposed to the second, it is somehow part of how the names represent their objects that the objects should be the same.

I take it that we all have an intuitive grip on this notion of [positive] coordination or *representing as the same*. But a good test of when an object is represented as the same is in terms of whether one might sensibly raise the question of whether it *is* the same. An object is represented as the same in a piece of discourse if no one who understands the discourse can sensibly raise the question of whether it is the same. Suppose that you say “Cicero is an

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<sup>9</sup> Intrinsicity and Compositionality Proper are so formulated in Fine [2007, pp. 25-26].

orator” and later say “Cicero was honest”, intending to make the very same use of the name ‘Cicero’. Then anyone who raises the question of whether the reference was the same would thereby betray his lack of understanding of what you meant. [2007, pp. 39-40]

In this passage of Fine’s book *Semantic Relationism* the following characterisation of coordination emerges.

Characterisation 1: Two co-referential token names (viz. two tokens of the same name or two tokens of different but co-referential names) in a piece of discourse are *positively coordinated* if and only if they represent their referent as the same. This is in turn the case if and only if no (sincere, reflexive and non-reticent) hearer/speaker who understands the discourse can sensibly raise the question of whether their referent is the same. Two co-referential token names in a piece of discourse are *negatively coordinated* if and only if they are not positively coordinated.<sup>10</sup>

Here below I am going to present and discuss three consequences of Characterisation 1, which will be helpful in later sections of this chapter.

Consequence 1: Two tokens of *different* but co-referential names in a piece of discourse are (usually) negatively coordinated.

For example, suppose that you say “Cicero is Roman” and “Tully is an orator”. Independently of your knowing or explicitly declaring that *Cicero* is *Tully*, a competent hearer of your piece of discourse can sensibly raise the question of whether the names ‘Cicero’ and ‘Tully’ within it co-refer. Therefore, according to Characterisation 1 and coherently with Consequence 1, these names are *negatively* coordinated.

Usually but not always two different but co-referential names are negatively coordinated: according to Fine [2007, pp. 46-47], a pair of names of which one is *conventionally* introduced into language as a variant of the other are positively coordinated; therefore, a person who raised the question of whether these names co-refer displays her lack of understanding of that language.

Consequence 2: Two tokens of a name (the *same* name) in a piece of discourse are *positively* coordinated if and only if they are *used in the same way*. (So, by contraposition, two tokens of a name in a piece of discourse are *negatively* coordinated if and only if they are *used differently*.)

Evidence for Fine’s holding Consequence 2 can be found in the previously quoted passage of his book and in the following ones:

In reporting Peter’s beliefs [that Paderewski is musical and that Paderewski is not musical], my use of the name ‘Paderewski’ is [positively] coordinated; I take myself to be making the very same use of the name ‘Paderewski’ from

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<sup>10</sup> Hoping to correctly interpret Fine’s [ibid., pp. 39, 40] characterisation of coordination, I have added the second ‘only if’ to its original formulation. Incidentally, on the grounds of this characterisation, one might wonder if Fine’s account of meaning is, in some way, circular: the key notion of his semantics, coordination, is characterised using the *semantic* notion of understanding a piece of discourse.

one belief report to the other. However, Peter would not be willing to express his beliefs in a correspondingly [positively] coordinated fashion; he would not be willing to assert “Paderewski is musical” and “Paderewski is not musical” with what he took to be the same use of the name ‘Paderewski’. [Ibid., p. 91]

Peter has two uses of the name ‘Paderewski’ [...]. [Ibid., p. 93]

At this point, one question arises: *when are two tokens of a name used in the same way?* Fine does not answer this question in a straightforward manner. In what follows I shall propose a few responses. I shall start from a (presumably) *necessary* condition for using two tokens of a name in the same way.

Hypothesis 1: Two tokens of a name in a piece of discourse made by a speaker, *S*, are used in the same way (and so are positively coordinated, according to Consequence 2) *only if S* uses them with the *intention* of referring to the same individual. (So, by contraposition, two tokens of a name in a piece of discourse of a speaker *S* are used differently – and so are negatively coordinated, according to Consequence 2 – *if S* uses them with the intention of referring to different individuals, even though she *de facto* refers to the same individual, or *if* she uses these tokens with no referential intention at all.)

For example, if Peter, who is “in the dark” about the fact that the musician Paderewski is the politician Paderewski, utters sentences (1) and (2) using the two tokens of the name ‘Paderewski’ with the intention of referring respectively to the musician Paderewski and the politician Paderewski, he makes different uses of these token names (according to the contrapositive of Hypothesis 1), with the result that these token names will be negatively coordinated (by virtue of Consequence 2).

- (1) Paderewski is a brilliant pianist.
- (2) Paderewski is a charismatic statesman.

Another example: suppose that you produce a piece of discourse containing the statements “Cicero is an orator”, “Cicero was astute”. If the tokens of ‘Cicero’ contained in these statements are positively coordinated then your use of such tokens is the same, i.e. (according to Hypothesis 1) you use them with the intention of referring to the same individual.

Notice that whereas Hypothesis 1 is (presumably) correct, its converse is not: the fact that a speaker uses two tokens of a name with the intention of referring to the same individual does *not* seem a *sufficient* condition for her making the same use of that name (and so for positive coordination). In fact, *the intention of the speaker to co-refer might fail to emerge in the discourse*, to the effect that a competent hearer of it could sensibly question whether the two token names co-refer; if so, coordination between these names will be negative (according to Characterisation 1). For example, reconsider your statements “Cicero is an orator”, “Cicero was astute”. Despite your intention to refer to the same Cicero, a hearer of these statements (in particular one who knows that at least two famous Ciceros have existed, the Roman orator and the astute German spy) – call this hearer ‘Mary’ – might question whether the two tokens of ‘Cicero’ within the aforesaid statements co-refer. Should we conclude from Mary’s raising this question that she is an *incompetent* hearer of your statements? I do not think so. Your discourse does not contain elements that reveal your intention to refer

to the same Cicero. Mary's question is therefore perfectly legitimate and it shows that the two tokens of 'Cicero' in your statements are *negatively* coordinated (in accordance with Characterisation 1).

In sum, the use of two tokens of a name with the intention of referring to the same individual is not a sufficient condition for making the same use of that name and therefore for positive coordination. On the contrary, a *sufficient* condition for this is (presumably) provided by Hypothesis 2.

Hypothesis 2: Two tokens of a name in a piece of discourse are used in the same way if some "special" linguistic particles or phrases contained in the discourse or its presuppositions make (somehow) clear that these tokens co-refer.

For example, suppose that you say "Cicero is an orator and the *same* Cicero was astute" or "Cicero is an orator and Cicero was *also* astute". The presence of the linguistic particle 'same' or 'also' in this statement makes evident your intention to co-refer. Coherently with Hypothesis 2, the two tokens of 'Cicero' are therefore used in the same way and thus, for Consequence 2, they are positively coordinated. Incidentally, this conclusion is in accordance with Characterisation 1: no competent hearer of your statement would (sincerely) question whether the two tokens of 'Cicero' *accompanied by the particle 'same' or 'also'* co-refer.

It should be noted that the two tokens of 'Cicero' are positively coordinated also when the *presuppositions of the discourse* make clear that they are used in the same way. In this case, the presence in your statement of the particle 'same' or 'also' is superfluous in order to yield positive coordination.

A note before proceeding: when in the continuation of this chapter, I shall claim that e.g. in the report "Peter believes that Paderewski has musical talent and Peter believes that Paderewski has no musical talent" the two token names 'Paderewski' are *used in the same way* by a speaker who knows that the pianist Paderewski is the politician Paderewski, I shall assume that it is part of the presuppositions of the discourse containing this report that the two tokens of 'Paderewski' co-refer.

Consequence 3: Two co-referring token names which belong to *different* pieces of discourse are *uncoordinated* (non-coordinated / not coordinated), i.e. they are neither positively nor negatively coordinated.

This consequence introduces a new notion in Fine's account, uncoordination. We have seen that Characterisation 1 provides a definition of positive and negative coordination among token names that *belong to the same piece of discourse*. Therefore, two tokens of a name which belong to *different* pieces of discourse will be neither positively nor negatively coordinated; they will indeed be uncoordinated.<sup>11</sup>

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<sup>11</sup> Although Fine does not explicitly mention the coordination/uncoordination distinction (he generally uses the terms 'coordination' and 'uncoordination' as synonyms of 'positive' and 'negative coordination' respectively), such a distinction – I think – implicitly emerges e.g. in the passages of *Semantic Relationism* [2007, pp. 93, 101] where, talking of the reports "Peter believes that Paderewski is musical" and "Peter believes that Paderewski is not musical", Fine distinguishes between the case in which these reports are considered *individually, in isolation* (i.e. they belong to different pieces of discourse, to the effect that the two tokens of 'Paderewski' within them are uncoordinated) and the case in which they are taken as a *pair* of reports (and so as belonging to the same piece of discourse, with the result that the two tokens of 'Paderewski' within such reports will be somehow coordinated).

Incidentally, when can two token expressions be said to belong to the *same* piece of discourse? In other words, what are the conditions for identifying a piece of discourse? Fine does not provide any clear answer to this question. These conditions appear in fact radically indeterminate and fluctuating: sometimes expressions of different languages (e.g. ‘Londres’, ‘London’) or expressions uttered by different speakers (e.g. a believer and a reporter) are taken by Fine as belonging to the same piece of discourse while, on the other hand, he sometimes takes expressions of the same language uttered by the same speaker (e.g. expressions within separate/isolated belief reports) as belonging to distinct pieces of discourse

*Coordination among proper names (a more “technical” characterisation):*

Besides Characterisation 1 (p. 127), Fine [ibid., pp. 43-50] also offers a second more “technical” characterisation of the notion of coordination among names. Examination of it might help the reader to better understand the intuitive Characterisation 1.

Characterisation 2: Two co-referential token names in a piece of discourse are positively (i.e. non-negatively) coordinated if and only if they represent their referent as the same. This is in turn the case if and only if they *strictly co-refer*, i.e. if and only if it is a semantic requirement that they co-refer.

A *semantic requirement* is a semantic fact in a narrow sense. A fact, belonging to the semantics of a given language *L*, is semantic *in a narrow sense* if “any rational and reflective individual who understands *L* is [...] in the position to know that the fact obtains” [ibid., p. 60]. For example, the fact that the names ‘Cicero’ and ‘Tully’ co-refer is semantic in a broad but not narrow sense, since an English

[...] speaker may know that ‘Cicero’ refers to a particular person and know that ‘Tully’ refers to a particular person without being in a position to know that they are coreferential. [Ibid., p. 46]

Since the fact that ‘Cicero’ and ‘Tully’ co-refer is not semantic in a narrow sense then, according to Characterisation 2, ‘Cicero’ and ‘Tully’ do not strictly co-refer, with the result that these names will be negatively coordinated.

The token names ‘Cicero’ within the statements “Cicero is an orator” and “Cicero was astute”, *without any addition and presupposition*, are also negatively coordinated since, in principle, a competent hearer of these statements (in particular one who knows that at least two famous Ciceros have existed) is not in a position to know that these token names co-refer. Instead, the two tokens of ‘Cicero’ within “Cicero is an orator and the *same* Cicero was astute” are positively coordinated: the fact that these tokens co-refer is available to all English speakers and so it is semantic in a narrow sense.

In the continuation of this paper, I will set aside Characterisation 2, using the less “technical” Characterisation 1.

*Coordination among linguistic expressions different from names:*

Characterisation 1 (p. 127) about coordination among proper names can rather easily be extended to other singular terms and to linguistic expressions in general. This “extension” yields respectively Characterisations 3 and 4.

Characterisation 3: Two tokens of the same or different co-referential *singular terms* in a piece of discourse are positively (i.e. non-negatively) coordinated if and only if they represent their referent as the same. This is in turn the case if and only if no (sincere, reflexive and non-reticent) hearer/speaker who understands the discourse can sensibly raise the question of whether their referent is the same.

Characterisation 4: Two tokens of the same or different *expressions* with the same intrinsic content are positively (i.e. non-negatively) coordinated if and only if they represent such content as the same. This is in turn the case if and only if no (sincere, reflexive and non-reticent) hearer/speaker who understands the discourse can sensibly raise the question of whether their intrinsic content is the same.

Using something like Characterisation 3, Fine [2007, p. 41] maintains that e.g. *anaphors* are (always) positively coordinated with the terms they are linked to. For example, suppose that you say “I saw John, he was wearing a bowler hat”, where the pronoun ‘he’ is used as an anaphor. For Fine, *every* competent hearer of your statement will take the terms ‘John’ and ‘he’ here as co-referring, to the effect that the coordination between them will be positive.<sup>12</sup>

On the basis of something like Characterisation 3, Scott Soames [2010, p. 465] attributes to Fine the thesis that two tokens of a *pure indexical* used in the same pragmatic context are also positively coordinated:

Some occurrences of indexicals [...] seem to represent their referents as the same.

I am tired, but I am not bored.  
I asked Martha to call me.<sup>13</sup>

It is, on the other hand, doubtful that two token *demonstratives* can be positively coordinated. Suppose e.g. that you say “This snake is this snake” pointing twice to the very same snake, while you and your hearers are continuously observing it.

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<sup>12</sup> I actually doubt that *every* case of anaphora, and in particular the one examined here, provides an example of positive coordination. Consider a competent hearer of your statement “I saw John, he was wearing a bowler hat”, say Mary. Suppose that Mary fails to realize that you use the pronoun ‘he’ as an anaphor and, for some reason, she wrongly thinks that you incompetently use this pronoun as a demonstrative to refer to a person who is *not* John (your alleged use of ‘he’ as a demonstrative would be incompetent because you utter it *without making any demonstration*). On this ground, Mary could legitimately and competently question whether ‘John’ and ‘he’ co-refer, to the effect that the coordination between these terms will be *negative*.

<sup>13</sup> I think Soames is right in attributing to Fine the thesis that two tokens of a pure indexical used in the same context are positively coordinated. I suspect, on the other hand, that this thesis is false, in the light of the following case. Suppose that a very mistrustful hearer of the statement “I asked Martha to call me” suspects that during the short temporal interval elapsed between the utterances of ‘I’ and ‘me’, a very clever and rapid substitution of the speaker takes place. On the basis of this suspicion, this hearer might (bizarrely but still competently) question whether ‘I’ and ‘me’ co-refer. As a result, the coordination between these terms will be *negative*.

The various momentary observations that make up the continuous observation then all represent the snake as the same. It is not like seeing a snake on two separate occasions and judging that it is the same. Here the series of observations actually represents the snake as the same from one moment to the next; and if the snake is not in fact the same (through some clever substitution, say), then one has suffered from a peculiar form of perceptual illusion. [Ibid., p. 67]

Even in a case like this, there is, in principle, the possibility that an extremely mistrustful hearer of your statement “This snake is this snake”, for some reason, (falsely) suspects that a clever substitution have been operated during the short temporal interval elapsed between your first and second utterance of ‘this’. Thus, such a hearer might (bizarrely but still competently) question whether the two token demonstratives in your statement co-refer, to the effect that the coordination between them will be *negative*.

Finally, according to Characterisation 4 (p. 131), two synonymous *predicates* like ‘is a bachelor’ and ‘is an unmarried man’ are positively coordinated: the fact that these predicates are synonymous and therefore express the same property is accessible to all competent English speakers, with the result that none of them will question whether ‘is a bachelor’ and ‘is an unmarried man’ have the same intrinsic content (i.e. express the same property).

*Coordination among occurrences of the intrinsic content:*

Coordination has been presented so far as a relation among (token) linguistic expressions having the same referent or having the same intrinsic content. However, Fine also maintains that coordination holds among occurrences of the intrinsic content itself, viz. occurrences of individuals, of properties, of relations contained in Russellian propositions.<sup>14</sup>

The following passages of *Semantic Relationism* elucidate the notion of occurrence of an individual and provide an intuitive characterisation of coordination among occurrences of an individual.

[...] we should be able to talk meaningfully of the *occurrences* of an individual in a proposition and [...] we should be able to talk meaningfully of *substituting* one individual for the occurrence of another within a given proposition. Thus it should make sense to say that the singular proposition that Cicero is an orator contains one occurrence of Cicero and that the singular proposition that Cicero is identical to Cicero contains two occurrences; and it should also make sense to say that the singular proposition that Bush is an orator is the result of substituting Bush for Cicero in the proposition that Cicero is an orator.

[...] differences in “coordination” among names show up as differences in coordination among the objects to which they correspond. Consider [...] the sentences “Cicero loves Cicero” and “Cicero loves Tully”. They express the same singular proposition, one to the effect that a given individual, Cicero,

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<sup>14</sup> The notion of *occurrence of a real individual* could somehow perplex the reader. Actually, although it is implausible to maintain that a real individual has multiple occurrences in space-time, there seems to be nothing wrong with the claim that such an individual has multiple occurrences within abstract entities, e.g. ordered sets or Russellian propositions.

loves Cicero. The proposition in question will, therefore, contain two occurrences of the individual Cicero. But, in the proposition expressed by the first sentence, the two occurrences of Cicero should be taken to be [positively] coordinated, thereby indicating that they were represented as the same, whereas in the proposition expressed by the second sentence, they should be taken to be [negatively coordinated], thereby indicating that they are not represented as the same. [Ibid., pp. 54-55]

*A doubt about coordination as an objective viz. semantic relation:*

Characterisations 1-4 disclose an important feature of Fine's coordination: coordination is an *objective* relation, in the sense that if a competent hearer, *H*, of a piece of discourse including two expressions with the same intrinsic content raises the question of whether these expressions have the same intrinsic content, then they are negatively coordinated *not only for H but for everybody*. In particular, coordination is, for Fine, a *semantic* (objective) relation: as we have seen in Section 1.1, it enters the semantic content of expressions and, as we will see in Section 2, it also enters the truth-conditions of belief reports.

In what follows I shall present a case which casts doubts on the thesis that coordination among expressions of natural language, in particular proper names, is an objective and semantic relation. Suppose that a speaker, Ann, utters sentences (1) and (2) using the two tokens of 'Paderewski' with the intention of referring to the *same* individual. Suppose, nevertheless, that Ann's intention to *co-refer* does not emerge in the discourse, with the result that Sam, a competent hearer of Ann's statements, questions whether the two tokens of 'Paderewski' in her statements *co-refer*. According to Characterisation 1 (p. 127), coordination between these token names will be negative. Therefore, the pair of statements (1) and (2) will express the negatively coordinated pair of propositions (3).

- (1) Paderewski is a brilliant pianist.
- (2) Paderewski is a charismatic statesman.
- (3) <<<Paderewski, Being a brilliant pianist>, <Paderewski, Being a charismatic statesman>>, C>

Now, whereas it is plausible to maintain that, by hearing Ann's statements, Sam (who doubts that the two tokens of 'Paderewski' in these statements *co-refer*) grasps the negatively coordinated pair of propositions (3), it is less evident that something like (3) which involves *negative* coordination is said by Ann, considering that: she uses the name 'Paderewski' in (1) and (2) with the intention of referring to the *same* person; more importantly, Ann could be totally unaware of doubts that one of her hearers (Sam) might have regarding the fact that the two tokens of this name *co-refer* (she could even wrongly think that none of her hearers has in fact such doubts). For analogous reasons, (3) can hardly be grasped by a hearer who is in the same epistemic conditions as Ann. In general, it seems to me counterintuitive that *what a speaker intentionally says (and a hearer grasps) depends on certain doubts (potentially unknown to the speaker and the hearer) that another hearer might have about the identity of the constituents of what is said.*

Rather than as a semantic objective relation, coordination could be conceived as a *psychological* and *subjective* relation, holding (not among linguistic expressions

but just) among the constituents of propositions believed by a given subject: what is negatively coordinated for a subject (e.g. Sam) can be positively coordinated for another (e.g. Ann or one of her hearers who is not Sam). Also, since – as we have seen – the intention of the speaker to co-refer can fail to emerge in the discourse without precluding the hearer to intuitively understand the message of the speaker, coordination should not enter what the speaker says and the hearer grasps, and therefore it should not enter semantic content.<sup>15</sup>

*Is coordination an equivalence relation?*

Coordination is not an equivalence relation since it is *not transitive*, as Fine [ibid., pp. 106-107] shows using the following argument. Suppose that Peter, unlike you, fails to realize that the musician Paderewski is the politician Paderewski. By saying (1) and (2), Peter therefore makes different uses of the name ‘Paderewski’. Thus, in light of Consequence 2 (p. 127), the two tokens of this name in Peter’s statements (1) and (2) (call these tokens  $P_1$  and  $P_2$  respectively) are negatively coordinated. Instead, the two tokens of ‘Paderewski’ in *your* statements (1) and (2) (call them  $Y_1$  and  $Y_2$  respectively) are positively coordinated, supposing that you make the same use of the name ‘Paderewski’. Finally, under the further supposition that Peter has directly derived his two uses of ‘Paderewski’ from your unique use, the pairs  $P_1, Y_1$  and  $P_2, Y_2$  will be both positively coordinated.<sup>16</sup>

- (1) Paderewski is a brilliant pianist.
- (2) Paderewski is a charismatic statesman.

Figure 1 below (in which the unbroken segments stand for positive coordination while the broken segment stands for negative coordination) summarizes what so far has been stated about coordination among the tokens  $P_1, P_2, Y_1$  and  $Y_2$ . It immediately emerges from Figure 1 that positive coordination is not a transitive relation, QED.<sup>17</sup>

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<sup>15</sup> An account of coordination conceived as a psychological and subjective relation will be propounded in the next chapter.

<sup>16</sup> Regarding positive coordination among two names whose use is *derived* one from another, see Fine [2007, pp. 122, 123].

<sup>17</sup> More details on the non-transitivity of coordination can be found in Fine [2007, pp. 108-115]. One point is doubtful in Fine’s argument, however. The token names  $P_1, P_2, Y_1$  and  $Y_2$  *must belong to the same piece of discourse*: otherwise, according to Consequence 3 (p. 129), it could *not* be the case that all pairs  $P_1Y_1, P_2Y_2, Y_1Y_2$  are coordinated. Now, since all these pairs are in fact positively coordinated, *no* competent hearer of the discourse will question whether any one of them co-refers (coherently with Characterisation 1, p. 127). But, if so, how can a hearer of this piece of discourse (so one who knows that the token names of each pair  $P_1Y_1, P_2Y_2, Y_1Y_2$  co-refer) doubt that  $P_1$  and  $P_2$  co-refer? It seems that he cannot. If so,  $P_1$  and  $P_2$  *must be positively coordinated, in contrast to what Fine maintains*. (Maybe, Fine “tests” the non-transitivity of coordination with hearers who consider the pair  $P_1P_2$  *separately* from the other mentioned pairs; if so,  $P_1P_2$  will really come out negatively coordinated. I wonder, on the other hand, how  $P_1P_2$  can be considered separately from  $P_1Y_1, P_2Y_2, Y_1Y_2$  if *all these pairs belong to the same piece of discourse*.)

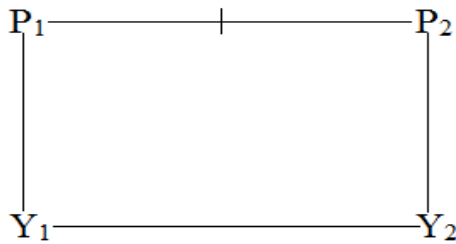


Figure 1

Notwithstanding (provisional) contrary declarations [ibid., p. 138, n. 6], Fine seems to claim that coordination is also a *non-symmetric* relation.

Coordination has so far been treated as a two-way affair; if an expression E is [positively] coordinated with F then F is also [positively] coordinated with E. But many cases of interest are ones in which a given expression *derives* its reference from the reference of another, though not vice versa. The most obvious case is anaphora. In “I met John, he was sporting a fake moustache”, the two terms ‘John’ and ‘he’ are strictly coreferential – but ‘he’ derives its reference from ‘John’, not ‘John’ from ‘he’. [Ibid., p. 122]

One might suspect that, *at the level of content*, coordination is even *non-reflexive*, on the grounds of the following argument. Suppose that Peter affirms sentence (4) with the intention of referring to the musician Paderewski and later repeats the same sentence intending this time to refer to the politician Paderewski (who are actually the same individual Paderewski). Peter’s two distinct utterances of (4) contain distinct token names ‘Paderewski’, which are *negatively* coordinated to one another (coherently with Consequence 2, p. 127, and Hypothesis 1, p. 128).

(4) Paderewski is Polish.

Now, since, for Fine, coordination among expressions shows up as coordination among the objects to which these expressions correspond (pp. 132-133) and since, on the other hand, Peter’s two utterances of (4) express the *same* proposition (4p), negative coordination between the distinct token names ‘Paderewski’ within Peter’s two utterances of (4) will show up as *negative coordination between the occurrence of Paderewski in (4p) and itself*.<sup>18</sup> If the occurrence of Paderewski in (4p) is negatively (i.e. not positively) coordinated with itself, positive coordination is a non-reflexive relation, QED.<sup>19</sup>

<sup>18</sup> Actually, the problem is even more delicate than how it has just been presented above. We said that negative coordination between the two token names ‘Paderewski’ shows up as *negative coordination among the occurrence of the individual Paderewski and itself*. On the other hand, each token name ‘Paderewski’ is also positively coordinated with itself; and this (positive) coordination at the linguistic level should show up as *positive coordination between the occurrence of Paderewski and itself*. We finally arrive at the following absurd result: the occurrence of Paderewski in (4p) is both positively and negatively (i.e. non-positively) coordinated with itself.

<sup>19</sup> Using a similar strategy, it could be argued that coordination is a non-transitive relation at the level of content (without going through the drawbacks pointed out in footnote 17). Suppose that Peter asserts “Paderewski is a brilliant pianist”, “Paderewski is Polish” by positively coordinating the two tokens of ‘Paderewski’, and he also asserts “Paderewski is Polish”, “Paderewski is a charismatic statesman” by positively coordinating the two tokens of ‘Paderewski’; however, the two tokens of the name

(4p) <Paderewski, Being Polish>

A way in which Fine could safeguard the reflexivity of coordination is by maintaining that Peter's *two* utterances of (4) do not express the same Russellian proposition (4p) but a *pair* of propositions, viz. the negatively coordinated pair (5). If so, negative coordination between the token names 'Paderewski' in Peter's two utterances of (5) will show up as negative coordination between the two *distinct* occurrences of Paderewski in (5). Hence, the reflexivity of coordination is preserved.

(5) <<<Paderewski, Being Polish>, <Paderewski, Being Polish>>, C<sup>-</sup>>.

Suppose, on the other hand, that Peter, instead of uttering (4) twice, only has the *disposition to assert* sentence (4) with the intention of referring to the musician Paderewski and also with the intention of referring to the politician Paderewski. Under this assumption, how can Fine intuitively maintain that sentence (4) expresses a *pair* of propositions instead of *one* proposition, (4p), containing just one occurrence of Paderewski? If he cannot, the conclusion that positive coordination is non-reflexive will follow.

*Coordination vs. modes of presentation:*

Fine [2007, pp. 5, 35-37, 42, 71-72] presents semantic relationism as a theory which secures many of the advantages of the Fregean account without being committed on the existence of senses. He turns down the possible challenge that the phenomenon of coordination can be analysed in terms of sense using his 'Bruce' case, in which negative coordination holds between the two imaginary Bruces whereas two different senses cannot be attached to "them". He [ibid., pp. 58-60] also maintains the impossibility to reduce coordination to sense by emphasizing a number of differences existing between these two notions.

As for me, I already showed in Chapter 2, Section 5.3 that the 'Bruce' case cannot be solved using senses and modes of presentation in general, while in Section 4.1 of this chapter I shall present a solution to this case in terms of coordination. Here, instead, I would like to show (in accordance with Fine's view) that *coordination is not a good candidate for the role of a mode of presentation because it violates Frege's Constraint* (i.e. the constraint which defines modes of presentation) not just in the new puzzles about belief presented in Ch. 2 but even in classical puzzles, e.g. the 'Cicero'/'Tully' case (or the like), where candidates for modes of presentation usually satisfy it.

Frege's Constraint: A rational subject cannot simultaneously believe and disbelieve (i) *a* to be *F* under the same mode of presentation, or (ii) under different modes of presentation which she realizes are modes of presentation of the same thing.

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'Paderewski' in Peter's two utterances of "Paderewski is Polish" are negatively coordinated. As a result, in the three expressed Russellian propositions <Paderewski, Being a brilliant pianist>, <Paderewski, Being Polish> and <Paderewski, Being a charismatic statesman>, the first occurrence of Paderewski is positively coordinated with the second, the second occurrence is positively coordinated with the third, but the first and the third are negatively coordinated, *contra* transitivity.

In fact, suppose that Tom affirms sincerely “Cicero admires Tully” and “Cicero does not admire Marcus” by mistaking the individual Cicero for three different people, *Cicero*, *Tully* and *Marcus*. In this case, an advocate of modes of presentation, for example a Russellian representationalist (p. 93), would say that Tom rationally believes and disbelieves proposition <Cicero, Admiration, Cicero> under two different modes of presentation, respectively corresponding to the sentences “Cicero admires Tully” and “Cicero admires Marcus”. On the other hand (coherently with Consequence 1, p. 127) both name-pairs ‘Cicero’, ‘Tully’ and ‘Cicero’, ‘Marcus’ are *negatively* coordinated. Therefore, if *ab absurdo* modes of presentation were coordination relations, Tom would rationally believe and disbelieve a proposition, <Cicero, Admiration, Cicero>, under the *same* mode of presentation, viz. “under” negative coordination, *contra* Frege’s Constraint.<sup>20</sup>

## 2. Semantic relationism and belief reports

The purpose of this section is to extend semantic relationism from simple sentences/statements (as it has been presented in Section 1.1) to belief reports, viz. to *individual* reports (‘*S* believes that *p*’), *pairs* of reports (‘*S* believes that *p*’, ‘*S* believes that *q*’) and *composite* reports (‘*S* believes that *p* and *S* believes that *q*’). In particular, Section 2.1 will describe intrinsic content and sufficient conditions for the correctness of individual reports *not* embedding terms with the same intrinsic content (e.g. “Tom believes that Cicero is bald”), while Section 2.2 will provide intrinsic content and sufficient conditions for the correctness of both composite reports embedding terms with the same intrinsic content (e.g. “Tom believes that Cicero is bald and Tom believes that Tully is not bald”) and individual reports embedding such terms (e.g. “Tom believes that Cicero admires Tully”).<sup>21</sup> As we will see, the crucial difference between reports which embed terms with the same intrinsic content and reports which do not do so lies in the fact that the former reports, unlike the latter, involve coordination in the intrinsic content and truth-conditions.

### 2.1 Individual reports *not* embedding terms with the same intrinsic content

*Intrinsic content of these individual reports:*

The question of what kind of proposition, in Fine’s view, could assume the role of the intrinsic content of belief reports is (at least *prima facie*) controversial: some passages of *Semantic Relationism* reveal uncertainty and scepticism regarding this matter.

Nothing [...] turns on what we take the [believed] proposition to be. It could be linguistic or partly linguistic; it could involve guises or modes of presentation in addition to objects; and it could be tied to the historical facts concerning the origin of the name [supposing that a name is included in the ‘that’-clause of the belief report]. The point is that the notion of proposition is simply

<sup>20</sup> Another simpler reason why coordination cannot be thought to be a mode of presentation is this: a mode of presentation, whatever it is, is presumably a property (of an object or of occurrences of an object), whereas coordination is a relation.

<sup>21</sup> I shall leave out of my investigation pairs of reports, since their relational semantics does not significantly differ from that of composite reports.

incapable of playing the *formal* role that these cases [e.g. the ‘Paderewski’ case] impose upon it. [...] there are [...] enormous difficulties in providing anything like a standard compositional semantics for individual belief reports. [Ibid., p. 121]

However, in his more recent “Comments on Scott Soames’ ‘Coordination Problems’”, Fine affirms:

[...] within the context of relationism, (SB) can [...] be taken to be applicable to a single ‘non-composite’ belief report. [2010, p. 476, n. 1]

[(SB) is the assumption according to which: i]f the sentence  $S$  expresses the proposition  $p$ , then the belief report ‘John believes that  $S$ ’ is true iff John believes  $p$ . [2010, p. 476]

Fine’s claim, together with his relational semantics for simple sentences (Section 1.1) and his substantial refusal of Fregean senses and modes of presentation in general (notwithstanding occasional contrary declarations), lead me to the following conclusion:

Intrinsic content of an individual report *not* embedding terms with the same intrinsic content: It is solely the (standard) Russellian proposition expressed by this report.

For example, the intrinsic content of the individual report “Tom believes that Cicero is bald” is the Russellian proposition  $\langle \text{Tom}, B, \langle \text{Cicero}, \text{Baldness} \rangle \rangle$ , where  $B$  is the two-place belief relation holding here between Tom and the singular proposition  $\langle \text{Cicero}, \text{Baldness} \rangle$ .

*Sufficient conditions for the correctness of individual reports not embedding terms with the same intrinsic content:*

We can distinguish between two kinds of individual reports: *positive* reports (‘ $S$  believes that  $p$ ’) and *negative* reports (‘ $S$  does not believe that  $p$ ’). Let us consider this problem about positive reports:

“Positive Individual” Problem: Suppose that a subject,  $S$ , asserts sincerely, on reflection and competently a sentence of the form ‘ $a_1$  is  $F_1$ ’. Given this assertion of  $S$ , under what conditions is the positive report ‘ $S$  believes that  $a_2$  is  $F_2$ ’ correct?

In the light of what has been previously stated about the intrinsic content of simple sentences and individual reports, the following solution to the “Positive Individual” Problem can be put forward:

“Positive Individual” Solution: The report ‘ $S$  believes that  $a_2$  is  $F_2$ ’ is correct if the token expressions ‘ $a_2$ ’ and ‘ $F_2$ ’ have respectively the same intrinsic content as the token expressions ‘ $a_1$ ’ and ‘ $F_1$ ’ in  $S$ ’s statement.

Taking for granted this solution, the truth values of the individual reports involved in the classical puzzles of inconsistency (Ch. 1, Section 1) are easily determined: in the ‘Cicero’/‘Tully’ case, the positive reports “Tom believes that Cicero/Tully is bald”, “Tom believes that Tully/Cicero is not bald” are correct, taking into account that Tom sincerely asserts “Cicero is bald” and “Tully is not bald” and that all tokens of ‘Cicero’ and ‘Tully’ in these (simple and belief) statements have the same intrinsic content (i.e. Cicero); in the ‘Londres’/‘London’ case, the individual reports “Pierre croit que Londres est jolie”, “Pierre believes that London is pretty”, “Pierre believes that London is not pretty” and “Pierre croit que Londres n’est pas jolie” are all correct, considering that Pierre sincerely asserts “Londres est jolie” and “London is not pretty”, and that all tokens of ‘Londres’ and ‘London’ in these statements have the same intrinsic content (i.e. London) as do the tokens of ‘est jolie’ and ‘is pretty’ (all expressing the property of Prettiness); finally, in the ‘Paderewski’ case, the individual reports “Peter believes that Paderewski has musical talent” and “Peter believes that Paderewski has no musical talent” are also correct, given Peter’s sincere assertion of “Paderewski has musical talent” and “Paderewski has no musical talent” and given the fact that all tokens of ‘Paderewski’ in these statements have the same intrinsic content (i.e. Paderewski).

Incidentally, following these examples, the principles of Positive Disquotation (p. 146), Substitution (Ch. 4, p. 95) and Translation (Ch. 4, p. 96) successfully apply to individual reports not embedding terms with the same intrinsic content.

The “Individual” Problem, previously raised about positive reports, can also be extended to negative reports:

“Negative Individual” Problem: Suppose that a subject  $S$  asserts sincerely, on reflection and competently a sentence of the form ‘I do not believe that  $a_1$  is  $F_1$ ’. Given this assertion of  $S$ , under what conditions is the negative report ‘ $S$  does not believe that  $a_2$  is  $F_2$ ’ correct?

Fine’s [2007, p. 138, n. 4] solution to this problem is quite original if compared to that of Russellian philosophers e.g. Salmon (Section 2.3 of Chapter 4), in that it complies with the principle of Negative Disquotation (p. 153).

“Negative Individual” Solution: The report ‘ $S$  does not believe that  $a_2$  is  $F_2$ ’ is correct if the token expressions ‘ $a_2$ ’ and ‘ $F_2$ ’ in this report have respectively the same intrinsic content as the token expressions ‘ $a_1$ ’ and ‘ $F_1$ ’ in  $S$ ’s statement ‘I do not believe that  $a_1$  is  $F_1$ ’.

In the light of this solution, in the ‘Cicero’/‘Tully’ case of contradiction (Ch. 1, Section 4), where Tom sincerely asserts “I do not believe that Tully is bald”, the negative report “Tom does not believe that Tully/Cicero is bald” will be correct, taking into account that the tokens of ‘Tully’/‘Cicero’ in these statements have the same intrinsic content.<sup>22</sup>

## 2.2 Composite and individual reports embedding terms with the same intrinsic content

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<sup>22</sup> The examined “Positive” and “Negative Individual” Solutions actually yield a problem: according to these solutions, the *contradictory* individual reports “Tom believes that Cicero is bald” and “Tom does not believe that Cicero is bald” are both correct in the ‘Cicero’/‘Tully’ case. I shall discuss in detail this delicate problem in Section 5 of this chapter.

*Sufficient conditions for the correctness of these composite reports:*

“Composite” Problem: Suppose that a subject *S* asserts sincerely, on reflection and competently (within the same piece of discourse) ‘*a*<sub>1</sub> is *F*’ and ‘*b*<sub>1</sub> is *G*’, where the token terms ‘*a*<sub>1</sub>’ and ‘*b*<sub>1</sub>’ have the same intrinsic content. Given these assertions of *S*, under what conditions is the composite report ‘*S* believes that *a*<sub>2</sub> is *F* and *S* believes that *b*<sub>2</sub> is *G*’ correct?

In order to answer this question, we first need to notice that, for Fine [ibid., 102-104], a composite report embedding terms with the same intrinsic content is susceptible to three different readings: a *pure de re*, a *weak de dicto* and a *strict de dicto* reading. Consequently, the solution to the “Composite” Problem is threefold, depending on how the composite report is read. I am now going to illustrate Fine’s solution to the “Composite” Problem, starting from the case in which the composite report is purely *de re* read.

“De Re Composite” Solution: The *pure de re reading* of the composite report ‘*S* believes that *a*<sub>2</sub> is *F* and *S* believes that *b*<sub>2</sub> is *G*’ is correct if (i) the token terms ‘*a*<sub>2</sub>’ and ‘*b*<sub>2</sub>’ have the same intrinsic content as the token terms ‘*a*<sub>1</sub>’ and ‘*b*<sub>1</sub>’ (included in *S*’s statements ‘*a*<sub>1</sub> is *F*’ and ‘*b*<sub>1</sub> is *G*’).

For example, in the ‘*Cicero*’/‘*Tully*’ case, where Tom sincerely asserts “*Cicero* is bald” and “*Tully* is not bald”, the (pure) *de re* reading of reports (6)-(8) is correct, since condition (i) is satisfied: the pairs of token names of *Cicero* contained in each of these reports have the same referent as the token names ‘*Cicero*’, ‘*Tully*’ contained in Tom’s abovementioned statements. Incidentally, from the correctness of the *de re* reading of (6)-(8) it emerges that, within this reading, co-referring names are intersubstitutable *salva veritate*.

- (6) Tom believes that *Cicero* is bald and Tom believes that *Cicero* is not bald.
- (7) Tom believes that *Cicero* is bald and Tom believes that *Tully* is not bald.
- (8) Tom believes that *Tully* is bald and Tom believes that *Cicero* is not bald.

“Weak De Dicto Composite” Solution: The *weak de dicto reading* of the composite report ‘*S* believes that *a*<sub>2</sub> is *F* and *S* believes that *b*<sub>2</sub> is *G*’ is correct if the following conditions are jointly satisfied:

- (i) The (token) terms ‘*a*<sub>2</sub>’ and ‘*b*<sub>2</sub>’ have respectively the same intrinsic content as the token terms ‘*a*<sub>1</sub>’ and ‘*b*<sub>1</sub>’ (included in *S*’s statements ‘*a*<sub>1</sub> is *F*’ and ‘*b*<sub>1</sub> is *G*’);
- (ii) The two pairs of terms ‘*a*<sub>2</sub>’, ‘*b*<sub>2</sub>’ and ‘*a*<sub>1</sub>’, ‘*b*<sub>1</sub>’ are *co-coordinated*, i.e. they are coordinated in the same way (both positively or both negatively).<sup>23</sup>

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<sup>23</sup> Fine’s “Weak *De Dicto Composite*” Solution and “Strict *De Dicto Composite*” Solution (pp. 142-143) originate in the following intuition: “For it may be *de dicto* in the sense of aiming to be faithful to how the believer himself would express his beliefs; there should be an appropriate match, if the report is to be correct, between the embedded clause that the reporter uses in making his report and the

For example, in the ‘Cicero’/‘Tully’ case, the weak *de dicto* reading of (6) (with the two tokens of ‘Cicero’ used in the same way) are not correct. The pair ‘Cicero’, ‘Cicero’ in (6) and the pair ‘Cicero’, ‘Tully’ in Tom’s statements “Cicero is bald” and “Tully is not bald” are in fact *not co-coordinated*: the former pair is *positively* coordinated while the latter is *negatively* coordinated (taking for granted Consequences 1 and 2, p. 127).

Instead, the weak *de dicto* reading of (7) and (8) is correct, since the name-pairs contained in these reports are negatively coordinated as the pair ‘Cicero’, ‘Tully’ in Tom’s abovementioned statements.

Incidentally, the correctness of (7) and (8) and the *incorrectness* of (6) under their weak *de dicto* reading show that *Substitution fails*.<sup>24</sup> Another principle at risk is the principle of *Translation* (p. 96): in the ‘Londres’/‘London’ case, the weak *de dicto* reading of (9) is correct, since the pair ‘Londres’, ‘London’ is negatively coordinated exactly as the corresponding name-pair in Pierre’s statements “Londres is pretty” and “London is not pretty”; on the other hand, the weak *de dicto* reading of its *translation* (10) is not correct, coherently with the fact that the pair ‘London’, ‘London’ (used in the same way) is coordinated *positively* and so differently from the (negatively coordinated) pair ‘Londres’, ‘London’ within Pierre’s statements.<sup>25</sup>

- (9) Pierre croit que Londres est jolie and Pierre believes that London is not pretty.
- (10) Pierre believes that London is pretty and Pierre believes that London is not pretty.

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sentence or “dictum” that the believer might use in expressing his belief. Of course, *de dicto* in this sense is somehow vague, since it is not altogether clear what is meant by ‘fidelity’ or ‘match’” [ibid., p. 92]. The notions of *co-coordination* and *cross-coordination* contained in the “Weak *De Dicto*” and “Strict *De Dicto* Composite” Solutions (pp. 140, 142-143) provide precise and technical significance to the pre-theoretical notion of “fidelity” or “match”.

<sup>24</sup> The failure of Substitution is acknowledged by Fine [2007, 139, n. 11]. As a strategy to safeguard Substitution within the *de dicto* readings of composite reports, an advocate of semantic relationism could suggest a redefinition of a *singular* term as a *term whose overall semantic content (i.e. intrinsic plus extrinsic content) is nothing but its referent*. If so, e.g. the token name ‘Tully’ in the *isolated* individual report “Tom believes that Tully is not bald” would be a singular term (according to the new definition): this report, since it is isolated, does not belong to a piece of discourse containing further terms referring to Cicero; therefore, its extrinsic content (p. 124) is “empty”, with the result that its overall content will be identical to its intrinsic content i.e. its referent, Cicero. Now, if ‘Tully’ in “Tom believes that Tully is not bald” is a singular term, then Substitution will be successfully applicable here, allowing the move from this report to “Tom believes that Cicero is not bald”. Instead, the name ‘Tully’ in the weak *de dicto* reading of the composite report (7) is *not* a singular term (according to the new definition): its overall content includes the individual Cicero (intrinsic content of ‘Tully’) plus the relation *C* between ‘Tully’ and ‘Cicero’ (extrinsic content of ‘Tully’). If ‘Tully’ within the weak *de dicto* reading of (7) is not a singular term, then Substitution *will not fail but rather it will be inapplicable* to this name in (7) (given that this principle only applies to *singular* terms) and the move from (7) to (6) will consequently be blocked.

<sup>25</sup> The relationist can choose between two alternatives: either he gives up the principle of Translation; or he keeps this principle and makes it *inapplicable* to the move from (9) to (10), by maintaining that (10) is *not a translation* of (9). He could maintain this on the grounds that translation is something that preserves meaning and therefore (in the case of non-indexical expressions) semantic content, whereas – as we will discover on pp. 144-145 – the intrinsic contents of the weak *de dicto* reading of (9) and (10) differ: they are respectively the coordinated propositions

<<<Pierre, B, <London, Being pretty>>, CONJ, <Pierre, B, <<London, Being pretty>, NEG>>>, *C*>  
 <<<Pierre, B, <London, Being pretty>>, CONJ, <Pierre, B, <<London, Being pretty>, NEG>>>, *C*<sup>+</sup>>.

As a further example of application of the “Weak *De Dicto* Composite” Solution, consider the ‘Paderewski’ case. Since Peter (who fails to realize that the pianist Paderewski is the politician Paderewski) makes different uses of the name ‘Paderewski’ in his statements “Paderewski has musical talent” and “Paderewski has no musical talent”, the two tokens of ‘Paderewski’ in these statements will be *negatively* coordinated (coherently with Consequence 2, p. 127). As regards the correctness or incorrectness of the weak *de dicto* reading of (11), this will crucially depend (taking for granted the Weak *De Dicto* Composite” Solution, p. 140) on how the token names ‘Paderewski’ in this report are used.

- (11) Peter believes that Paderewski has musical talent and Peter believes that Paderewski has no musical talent.

Suppose first that the reporter of Peter’s beliefs, who is in the dark about the fact that the pianist Paderewski is the politician Paderewski, makes (coherently with Hypothesis 1, p. 128) *different uses* of the name ‘Paderewski’ in (11). If so, the two tokens of ‘Paderewski’ in (11) will be *negatively* coordinated (according to Consequence 2, p. 127) exactly as the corresponding name-pair in Peter’s statements “Paderewski has musical talent” and “Paderewski has no musical talent”. Since the two name-pairs are *co-coordinated*, the weak *de dicto* reading of (11) will be correct.

Instead, suppose that the reporter, being in the know about the fact that the pianist Paderewski is the politician Paderewski, makes the *same use* of the two tokens of ‘Paderewski’ in (11). Coherently with Consequence 2 (p. 127), these tokens will be *positively* coordinated, and therefore they will *not* be co-coordinated with the tokens of ‘Paderewski’ in Peter’s statements “Paderewski has musical talent” and “Paderewski has no musical talent” (which are in fact *negatively* coordinated). As a result, the weak *de dicto* reading of (11) will not be correct in this case.<sup>26</sup>

“Strict *De Dicto* Composite” Solution: The *strict de dicto reading* of the composite report ‘*S* believes that  $a_2$  is *F* and *S* believes that  $b_2$  is *G*’ is correct if the following conditions are jointly satisfied:

- (i) The (token) terms ‘ $a_2$ ’ and ‘ $b_2$ ’ have respectively the same intrinsic content as the terms ‘ $a_1$ ’ and ‘ $b_1$ ’ (included in *S*’s statements ‘ $a_1$  is *F*’ and ‘ $b_1$  is *G*’);
- (ii) The two pairs of terms ‘ $a_2$ ’, ‘ $b_2$ ’ and ‘ $a_1$ ’, ‘ $b_1$ ’ are co-coordinated (p. 140).

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<sup>26</sup> The “Weak *De Dicto* Composite” Solution faces one important difficulty. Suppose that you sincerely utter (11) *with the intention to refer to the same Paderewski*. The reasonable expectation of a relationist, I guess, is that the weak *de dicto* reading of your statement is *incorrect*, given your *co-referential* intention. On the other hand, suppose that such an intention fails to emerge in the discourse, to the effect that a hearer of your statement (*viz.* a hearer who thinks that two Paderewskis existed) raises the question of whether the two tokens of ‘Paderewski’ in (11) co-refer. In the light of Characterisation 1 (p. 127), these token names will therefore be negatively coordinated, exactly as the tokens of ‘Paderewski’ in Peter’s statements “Paderewski has musical talent” and “Paderewski has no musical talent”. If so, co-coordination holds and the weak *de dicto* reading of (11) will consequently be *correct*, according to the “Weak *De Dicto* Composite” Solution but in contrast to the initial (and reasonable) expectation that this reading is incorrect. Why does Fine’s solution not work in this case? One possible explanation is that Fine wrongly takes the converse of Hypothesis 1 on p. 128 (according to which the intention of a speaker to co-refer is a *sufficient* condition for positive coordination) as correct, not noticing that such an intention can actually fail to emerge in the discourse (like in the case proposed here, where your intention to refer twice to the same Paderewski is not detected by at least some of your hearers).

- (iii) The two pairs of terms ‘ $a_2$ ’, ‘ $b_2$ ’ and ‘ $a_1$ ’, ‘ $b_1$ ’ are *cross-coordinated*, i.e. ‘ $a_2$ ’ is positively coordinated with ‘ $a_1$ ’ and ‘ $b_2$ ’ is positively coordinated with ‘ $b_1$ ’.

As an example of application of the “Strict *De Dicto* Composite” Solution, reconsider the ‘Cicero’/‘Tully’ case. Under its *strict de dicto* reading, the composite report (7) is correct, since the token names ‘Cicero’ and ‘Tully’ in this report are not only *co*-coordinated (as shown on p. 141) but they are also *cross*-coordinated with the token names ‘Cicero’ and ‘Tully’ in Tom’s statements “Cicero is bald” and “Tully is not bald”: the token of ‘Cicero’ in (7) is *positively* coordinated with its token in Tom’s statement “Cicero is bald”, and the token of ‘Tully’ in (7) is *positively* coordinated with its token in Tom’s statement “Tully is not bald”.<sup>27</sup>

Instead, the *strictly de dicto* reading of (6) is incorrect, since cross-coordination does *not* hold: the second token of ‘Cicero’ in (6) and ‘Tully’ in Tom’s statement “Tully is not bald” are *not* positively coordinated. (In an analogous way, it could be shown that the *strictly de dicto* reading of (8) is also incorrect.)

- (6) Tom believes that Cicero is bald and Tom believes that Cicero is not bald.  
 (7) Tom believes that Cicero is bald and Tom believes that Tully is not bald.  
 (8) Tom believes that Tully is bald and Tom believes that Cicero is not bald.

I have presented so far Fine’s threefold solution to the “Composite” Problem (p. 140). Analogous problems could, in principle, be raised with regard to composite reports including *negative* reports, pairs of reports and what I will call *hybrid reports*, i.e. individual reports embedding terms with the same intrinsic content. In what follows, I will confine myself to examine the case of hybrid reports.

*Sufficient conditions for the correctness of hybrid reports:*

“Hybrid” Problem: Suppose that a subject *S* asserts sincerely, on reflection and competently a sentence of the form ‘ $Pa_1b_1$ ’, where the token terms ‘ $a_1$ ’ and ‘ $b_1$ ’ have the same intrinsic content. Given this assertion of *S*, under what conditions is the hybrid report ‘*S* believes that  $Pa_2b_2$ ’ correct?

The solution to this problem closely follows the previously examined “Composite” Solutions. Suppose, for example, that Tom asserts sincerely, on reflection and competently “Cicero admires Tully” and consider the following hybrid reports:

- (12) Tom believes that Cicero admires Tully;  
 (13) Tom believes that Tully admires Cicero;  
 (14) Tom believes that Cicero admires Cicero.

The *de re* reading of (12)-(14) is correct, since something like condition (i) (p. 140) is satisfied: the pairs of names of Cicero contained in each report have the same intrinsic content as the names ‘Cicero’, ‘Tully’ in Tom’s statement “Cicero admires Tully”.

<sup>27</sup> In order to secure positive coordination between the two tokens of ‘Cicero’, as well as between the two tokens of ‘Tully’, we can suppose that the reporter *directly* derives his uses of ‘Cicero’ and ‘Tully’ from Tom’s uses of these names. About the notion of *derived* use of a name, see Fine [2007, pp. 122-124].

Under their *weak de dicto* reading, (12) and (13) are also correct since *co*-coordination – i.e. something like condition (ii) (p. 140) – holds: the pairs ‘Cicero’, ‘Tully’ in (12) and ‘Tully’, ‘Cicero’ in (13) are *negatively* coordinated, exactly as is the pair ‘Cicero’, ‘Tully’ in Tom’s statement “Cicero admires Tully”. On the other hand, we have *no* reason to take the *weak de dicto* reading of (14) as correct: the pair of token names (used in the same way) ‘Cicero’, ‘Cicero’ in (14), unlike the pair ‘Cicero’, ‘Tully’ contained in Tom’s statement, are *positively* coordinated; so *co*-coordination does not hold.

As regards, finally, the *strict de dicto* reading of (12)-(14), only report (12) is undoubtedly correct under this reading, because only in this report *cross*-coordination – i.e. something like condition (iii), p. 143 – holds: the token of ‘Cicero’ in (12) is *positively* coordinated with its token in Tom’s statement “Cicero admires Tully”, and *positive* coordination also holds between the two token names ‘Tully’ in (12) and in the abovementioned statement of Tom.

*Intrinsic content of the weak de dicto reading of composite and hybrid reports:*

For on [the relational point of] view, the content of a belief will be given by a coordinated rather than by an uncoordinated proposition [by *uncoordinated proposition* Fine means a standard Russellian proposition]. Thus we may distinguish between the content of the belief that Cicero is Tully (where this is the negatively coordinated proposition) from the content of the belief that Cicero is Cicero (where this is the positively coordinated proposition). [...]

More significantly still, we should now distinguish between the collective and the individual content of someone’s beliefs. If asked what someone believes, then it would normally be thought sufficient to respond by listing the various propositions that he believes. But this view can no longer be sustained. For suppose that someone believes that Cicero is a Roman and also believes that Cicero is an orator. Then what he believes is the proposition that Cicero is a Roman and the proposition that Cicero is an orator. But suppose now that he believes that Cicero is a Roman and also believes that Tully is an orator. Then the individual content of his two beliefs is as before: the proposition that Cicero is a Roman; and the proposition that Tully (i.e. Cicero) is an orator. But there is a difference in the coordinated content of the two beliefs; for, in the one case, the beliefs are positively coordinated while, in the other case, they are not. Thus the coordinated content of his beliefs, taken collectively, is not exhausted, or even determined, by the content of his beliefs, taken individually. [Ibid., p. 77]

This passage accounts for the following claims about the content of composite and hybrid reports.

Intrinsic content of the weak de dicto reading of a composite report including terms with the same intrinsic content: It is the coordinated proposition formed by the Russellian proposition expressed by this report plus the relation of (positive or negative) coordination holding between the abovementioned terms.

For example, the intrinsic content of the weak *de dicto* reading of composite report (6), where the two tokens of ‘Cicero’ are used in the same way and so are positively coordinated, is the proposition

<<<Tom, B, <Cicero, Baldness>>, CONJ, <Tom, B, <<Cicero, Baldness>, NEG>>>, C<sup>+</sup>>.

(Incidentally, the same proposition is also the intrinsic content of the weak *de dicto* reading of “Tom believes that Tully is bald and Tom believes that Tully is not bald”, where the two tokens of ‘Tully’ are used in the same way.)

Intrinsic content of the weak *de dicto* reading of a hybrid report: It is the structured proposition composed of the believer, the two-place relation of belief, B, and the coordinated proposition expressed by the sentence embedded in the report.

For example, the intrinsic content of the weak *de dicto* reading of the hybrid reports (12) and (13) is the proposition

<Tom, B, <<Cicero, Admiration, Cicero>, C>>.

*Intrinsic content of de re reading of composite and hybrid reports:*

Fine does not straightforwardly say what the content of this reading is. Nonetheless, taking into account that coordination plays no role within the truth-conditions of such a reading and that co-referring names are intersubstitutable *salva veritate* within this reading (see p. 140), it seems correct to uphold the following claims.

Intrinsic content of the *de re* reading of a composite or hybrid report: It is simply the Russellian proposition expressed by this report.

I said nothing about the intrinsic content of the *strict de dicto* reading of composite and hybrid reports. One possible candidate for playing the role of such content, i.e. token propositions, will be examined in Section 6.

Taking for granted Fine’s relational semantics of belief reports, I am now going to present relational solutions to the classical and new puzzles about belief. I shall distinguish, as usual, among puzzles of inconsistency, puzzles of impossibility and puzzles of contradiction. I shall not always consider all available readings of belief reports; instead, I shall focus on those readings that each time will seem to me the most interesting.

### **3. Puzzles of inconsistency: solutions and problems**

I showed on p. 141 that Substitution and Translation do not successfully apply to the *de dicto* readings of composite reports. Reasonably, the relational solutions to the ‘Cicero’/‘Tully’ and the ‘Londres’/‘London’ cases of inconsistency will then consist of blocking respectively the moves from (7) to (6) (p. 140) and from (9) to (10) (p. 141). Let us leave out of consideration these two cases (whose solution is evident at

this point) and let us focus on other puzzles of inconsistency: the (classical) ‘Paderewski’ case and the (new) ‘Superman’/‘Clark Kent’ and colour error theorist cases.

### 3.1 The ‘Paderewski’ case

Consider the following principles:

Positive Disquotation: If a subject  $S$  has the disposition to sincerely, on reflection and competently assert (or accept or assent to) sentence ‘ $p$ ’, which lacks indexical or pronominal devices or ambiguities, then  $S$  believes that  $p$ .

Conjunction: A conjunction is true if and only if its conjuncts are both true.

Rationality: If a subject simultaneously believes that  $p$  and believes that  $\sim p$ , then she is irrational.

The ‘Paderewski’ case of inconsistency can be presented as a sequence of four steps preceded by three assumptions:

- (a) Peter is rational. [Assumption]
- (b) Peter mistakes Paderewski for two people, a pianist and a politician. [Assumption]
- (c) Thinking of Paderewski as a pianist, Peter asserts sincerely, on reflection and competently “Paderewski has musical talent”. Thinking of Paderewski as a politician, he asserts (under the same conditions) “Paderewski has no musical talent”. [Assumption]
- (d) Peter believes that Paderewski has musical talent. [From (c) using Positive Disquotation]
- (e) Peter believes that Paderewski has no musical talent. [From (c) using Positive Disquotation]
- (f) Peter believes that Paderewski has musical talent and Peter believes that Paderewski has no musical talent. [From (d) and (e) using Conjunction]
- (g) Peter is irrational. [From (f) using Rationality]

In order to *relationally* solve the ‘Paderewski’ case of inconsistency, let us first determine the truth-values of reports (d)-(f) according to semantic relationism. Given assumption (c), the *individual* reports (d) and (e) are correct (taking for granted the “Positive Individual” Solution, p. 138). As regards the *composite* report (f), its truth-value varies according to how this report is read. I shall examine the case in which (f) is *de re* read and the case in which it is weakly *de dicto* read.

*De re reading of (f)*:

Under this reading, report (f) is correct according to the “*De Re Composite*” Solution (p. 140), since the two tokens of ‘Paderewski’ in this report have the same intrinsic content as its tokens in Peter’s statements “Paderewski has musical talent” and “Paderewski has no musical talent”. Therefore, the ‘Paderewski’ case of inconsistency will (presumably) be solved, under this reading, by disallowing the move from (f) to

(g) thereby *rejecting Rationality* (a principle which is indispensable to perform this move).<sup>28</sup>

*A doubt about this solution to the de re case:*

How can assumption (a) about Peter's rationality be conciliated with the outcome that the *de re* reading of (f) is correct? Namely (taking for granted what has been stated on p. 145 about the intrinsic content of *de re* composite reports) how can Peter (at the *de re* level) *rationally* believe and disbelieve the same thing, viz. <Paderewski, Having musical talent>?

Russellian theorists of belief reports (Salmon, Braun, Saul) answer this question by appealing to modes of presentation (guises, mental sentences, files). But Fine does not have modes of presentation in his theory; neither can he invoke coordination here, since (as we have seen on pp. 140, 145) coordination plays *no* role within the *de re* reading of composite reports and within their intrinsic content.

In a passage of *Semantic Relationism* [p. 103], nevertheless, Fine *dissolves* the problem: "under [the *de re*] reading, of course, Kripke's puzzle will not arise since it will clearly be correct to report the person as believing both that Paderewski is musical and that Paderewski is not musical". So, for Fine, the question of how a rational subject can believe and disbelieve the same thing does not deserve an answer when the belief report under consideration is *de re* read.

*Weak de dicto reading of (f):*

The correctness of the weak *de dicto* reading of (f) crucially depends on how the reporter of Peter's belief uses of the name 'Paderewski' in (f).

Suppose that this reporter, being in the dark about the fact that the pianist Paderewski is the politician Paderewski, utters (f) using the two tokens of 'Paderewski' in a *different* way. According to Consequence 2 (p. 127), the pair of token names 'Paderewski' in (f) are *negatively* coordinated, exactly as the corresponding name-pair in Peter's statements "Paderewski has musical talent" and "Paderewski has no musical talent". Since these two pairs are *co-coordinated*, the weak *de dicto* reading of (f) is correct (according to the "Weak *De Dicto* Composite" Solution, p. 140). Under such a reading of (f), the 'Paderewski' case will (presumably) be solved, then, by disallowing the move from (f) to (g), *giving up Rationality*.

Notice that whereas in the previously examined *de re* case no justification was available to reconcile the correctness of (f) with Peter's rationality, in the *de dicto* case an explanation for this can be obtained by exploiting the following principle of *Relational Rationality*: report (f) can be correct even if Peter is rational, because the two tokens of 'Paderewski' in (f) are *negatively* coordinated and the fact that they are so coordinated does not imply the irrationality of Peter (in accordance with Relational Rationality).

Relational Rationality: If the (weak or strict) *de dicto* reading of the composite report 'S believes that a is F and S believes that a is not F' is

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<sup>28</sup> The abandonment of Rationality ('Consistency' in his own terminology) is acknowledged by Fine [2007, p. 95].

correct and the pairs ‘*a*’, ‘*a*’ and ‘*F*’, ‘*F*’ within it are both *positively* coordinated, then *S* is irrational.

Let us examine now the case of a reporter of Peter’s beliefs who is in the know about the fact that the pianist Paderewski is the politician Paderewski and who utters (f) by making the *same use* of the name ‘Paderewski’. According to Consequence 2, p. 127, the pair of token names ‘Paderewski’ in (f) is *positively* coordinated in this case. On the other hand, the corresponding name-pair in Peter’s statements “Paderewski has musical talent” and “Paderewski has no musical talent” is *negatively* coordinated. Since the two pairs are *not* co-coordinated, we are not allowed (on the grounds of the “Weak *De Dicto* Composite” Solution, p. 140) to conclude that the weak *de dicto* reading of (f) is correct. Under this reading of (f), the ‘Paderewski’ case of inconsistency will then be solved by blocking the move from the individual reports (d) and (e) to the composite report (f), thereby *rejecting the rule of Conjunction*.<sup>29</sup>

*Summing up:*

If the composite report (f) is *de re* read, then this report is correct and the ‘Paderewski’ case of inconsistency is solved by blocking the move from (f) to (g), giving up Rationality. The same solution applies where (f) is weakly *de dicto* read and the reporter makes different uses of the name ‘Paderewski’ in (f). Instead, if (f) is weakly *de dicto* read and the same use of that name is made by the reporter, the puzzle is solved by disallowing the move from (d) and (e) to (f), with the resulting abandonment of Conjunction.

### 3.2 The ‘Superman’/‘Clark Kent’ case

A relational solution is also possible for new puzzles of inconsistency such as the ‘Superman’/‘Clark Kent’ case:

- (k) Emily is rational. [Assumption]
- (l) Emily knows that *Superman* is *Clark Kent*. [Assumption]
- (m) Thinking of Clark Kent disguised as Superman, Emily asserts sincerely, on reflection and competently “Superman flies”. Thinking of him as Clark the journalist, she also asserts (under the same conditions) “Clark Kent does not fly”. [Assumption]
- (n) Emily believes that Superman flies. [From (m) using Positive Disquotation, p. 146]
- (o) Emily believes that Clark Kent does not fly. [From (m) using Positive Disquotation]
- (p) Emily believes that Superman flies and Emily believes that Clark Kent does not fly. [From (n) and (o) using Conjunction, p. 146]
- (q) Emily believes that Superman flies and Emily believes that Superman does not fly. [From (p) using Substitution]

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<sup>29</sup> Evidence for Fine’s rejection of this rule can be found in several passages of *Semantic Relationism*, for example these: “What I would like to say, in response to Kripke’s original puzzle, is that the report that Peter believes that Paderewski is musical is correct, that the report that Peter believes that Paderewski is not musical is also correct, but that the composite report consisting of the two individual reports taken together is not correct” [ibid., p. 100]; “[...] it will not be correct to report him as believing both that Paderewski is musical and that Paderewski is not musical” [ibid., p. 104].

(r) Emily is irrational. [From (q) using Rationality, p. 146]

Within semantic relationism, the *individual* reports (n) and (o) are correct, given assumption (m) and taking for granted the “Positive Individual” Solution (p. 138). On the basis of the “*De Re Composite*” Solution (p. 140), the *de re* reading of the *composite* reports (p) and (q) is also correct; under this reading of (p) and (q), the ‘Superman’/‘Clark Kent’ case will (presumably) be solved by blocking the move from (q) to (r), *contra* Rationality.

In contrast, consider the case in which (p) and (q) are *weakly de dicto* read. Under this reading, the pair ‘Superman’, ‘Clark Kent’ in (p) is *co-coordinated* with the name-pair in Emily’s statements “Superman flies” and “Clark Kent does not fly”: both are *negatively* coordinated (according to Consequence 1, p. 127). On the other hand, the pair of token names (used in the same way) ‘Superman’, ‘Superman’ in (q) is *not* co-coordinated with the pair ‘Superman’, ‘Clark Kent’ in Emily’s statements since the former pair unlike the latter is *positively* coordinated. Thus, under their *weak de dicto* reading, (p) is correct while (q) is not, taking for granted the “*Weak De Dicto Composite*” Solution (p. 140). The ‘Superman’/‘Clark Kent’ case is consequently solved here by blocking the move from (p) to (q), *contra* Substitution.

### 3.3 The case of the colour error theorist

A straightforward relational solution does *not* seem available, instead, for the kind of new puzzles about belief exemplified by the colour error theorist case:

- (s) Rob is rational. [Assumption]
- (t) In ordinary circumstances, Rob asserts sincerely, on reflection and competently “Fire engines are red”. On the other hand, as a colour error theorist, he asserts (under the same conditions) “Fire engines are not red (and of no colour at all)”. [Assumption]
- (u) Rob makes no mistake in identifying fire engines and the property of Redness. [Assumption]
- (v) Rob believes that fire engines are red. [From (t) using Positive Disquotation]
- (w) Rob believes that fire engines are not red. [From (t) using Positive Disquotation]
- (x) Rob believes that fire engines are red and Rob believes that fire engines are not red. [From (v) and (w) using Conjunction]
- (y) Rob is irrational. [From (x) using Rationality]

In this case, the believer, Rob, and the reporter of his beliefs make only one use of ‘fire engines’ and only one use of ‘red’. So (coherently with Consequence 2, p. 127) the pairs ‘fire engines’, ‘fire engines’ and ‘red’, ‘red’ in (x) as well as in Rob’s statements “Fire engines are red” and “Fire engines are not red” will be (positively) *co-coordinated* and also *cross-coordinated*. Therefore, both the *weak* and *strict de dicto* readings of (x) will be correct (according to the “*De Dicto Composite*” Solutions, pp. 140, 142-143). Now, since in (x) the pairs ‘fire engines’, ‘fire engines’ and ‘red’, ‘red’ are *positively* coordinated, from the correctness of (x) the conclusion that Rob is irrational follows on the basis of Relational Rationality (p. 147). No move of the puzzle is therefore blocked. The colour error theorist case consequently remains unsolved.

*Possible reply from an advocate of semantic relationism:*

By exploiting the fact that Rob has the disposition to assert sincerely “Fire engines are red” only in circumstances which are *different* from those where he has the disposition to sincerely assert “Fire engines are not red”, an advocate of semantic relationism could possibly maintain that Rob’s two contradictory statements about fire engines belong to *distinct pieces of discourse*. If so, according to Consequence 3 (p. 129), the pairs ‘fire engines’, ‘fire engines’ and ‘red’, ‘red’ in these statements will be *uncoordinated* (i.e. neither positively nor negatively coordinated). Since Fine does not provide sufficient conditions for the correctness of composite reports originating in sincere assertions of the believer that contain *uncoordinated* terms, nothing in principle hinders the semantic relationist to solve the colour error theorist case by disallowing the move from (t) to (x).

*My response:*

Although this proposal (which crucially appeals to the notion of piece of discourse) “technically” works, clear conditions of identifying a piece of discourse should be provided in order to convincingly maintain that Rob’s statements “Fire engines are red” and “Fire engines are not red” belong to *different* pieces of discourse.

#### **4. Puzzles of impossibility: solutions**

Fine’s coordination reveals all its resourcefulness in the puzzles of impossibility: all classical and new puzzles of impossibility can be solved using this device. Here I shall confine myself to presenting the relational solution to the ‘Bruce’ case of impossibility.

##### **4.1 The ‘Bruce’ case**

Consider this principle:

Consequence of Rationality: If a subject *S* believes that  $p \& \sim p$ , or that *a* is not *a*, or that *a* is more/less *F* than *a*, then she is irrational.

As a puzzle of impossibility, the ‘Bruce’ case can be presented as follows:

- (a) Susan is rational. [Assumption]
- (b) Susan mistakes Bruce for two indiscernible individuals residing in a perfectly symmetric universe. [Assumption]
- (c) Thinking of the two Bruces, Susan asserts sincerely, on reflection and competently “Bruce is not Bruce”. [Assumption]
- (d) Susan believes that Bruce is not Bruce. [From (c) using Positive Disquotatation]
- (e) Susan is irrational. [From (d) using the Consequence of Rationality]

In accordance with the sufficient conditions for the correctness of hybrid reports hinted on pp. 143-144, the *de re* reading of hybrid report (d) is correct, given assumption (c). So, under this reading of (d), the ‘Bruce’ case will (presumably) be solved by blocking the move from (d) to (e), thereby *rejecting the Consequence of Rationality*.

If report (d) is instead *weakly de dicto* read, its truth-value varies according to whether the reporter makes the same or different uses of the name ‘Bruce’ in (d).

*Different uses of ‘Bruce’:*

Suppose that, by mistaking Bruce for two distinct people, the reporter (exactly like Susan) makes different uses of the name ‘Bruce’ in (d). As a result, the pair of token names ‘Bruce’ in (d) will be negatively coordinated, exactly as the corresponding name-pair in Susan’s statement “Bruce is not Bruce”. Since the two pairs are *co*-coordinated, the weak *de dicto* reading of (d) will be correct. Under this reading of (d), the puzzle will therefore be solved by disallowing the move from (d) to (e), *contra the Consequence of Rationality* (p. 150) but coherently with the following *Consequence of Relational Rationality*, a new principle that replaces the former in relational semantics.

Consequence of Relational Rationality: A subject, *S*, is irrational if the (weak or strict) *de dicto* reading of a report having one of the following forms is correct and both pairs ‘*a*’, ‘*a*’ and ‘*F*’, ‘*F*’ within such a report are *positively* coordinated: ‘*S* believes that *a* is *F* and *a* is not *F*’; ‘*S* believes that *a* is not *a*’; ‘*S* believes that *a* is more/less *F* than *a*’.

*Same use of ‘Bruce’:*

Suppose that the reporter, knowing that there is only one Bruce, utters (d) using the name ‘Bruce’ in the same way. As a result, the pair of token names ‘Bruce’ in (d) is *positively* coordinated. So, this pair is *not* co-coordinated with the corresponding name-pair contained in Susan’s statement “Bruce is not Bruce” (which, as we have seen, is *negatively* coordinated). The weak *de dicto* reading of (d) is therefore not correct (coherently with the sufficient conditions for the correctness of this reading hinted on pp. 143-144), to the effect that the ‘Bruce’ case of impossibility will be solved by blocking the move from (c) to (d) and so by *rejecting Positive Disquotation*, the principle indispensable to perform this move.<sup>30</sup>

## 4.2 Costs of the relational solution to the puzzles about belief

The relational solutions to the puzzles of inconsistency and impossibility have high costs. A number of principles have in fact been rejected: *Conjunction*, *Substitution*, *Positive Disquotation*, *Rationality*, *Consequence of Rationality*, *Compositionality* (*viz. Intrinsicity*) and possibly *Translation*. Notice also that, given the “*De dicto Composite*” Solutions (pp. 140, 142-143), an inference like (Inf 1) (p. 152), whose pattern is

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<sup>30</sup> The rejection of Positive Disquotation is acknowledged by Fine [2007, p. 118 and p. 139, n. 12].

$$\frac{p}{\therefore p}$$

turns out *invalid* if the following suppositions are jointly met: (P1) and (C1) are (strongly or weakly) *de dicto* read; the pair ‘Paderewski’, ‘Paderewski’ in (P1) is negatively coordinated; and the corresponding pair in (C1) is positively coordinated.

(Inf 1)

(P1) Peter believes that Paderewski has musical talent and Peter believes that Paderewski has no musical talent.

$\therefore$  (C1) Peter believes that Paderewski has musical talent and Peter believes that Paderewski has no musical talent.<sup>31</sup>

An advocate of semantic relationism might hope to safeguard Conjunction by exploiting an alleged distinction between *truth* and *correctness* mentioned by Fine in the following passage of his book:

Kripke formulates his puzzles in terms of the *truth* of various belief reports. But many philosophers have wanted to distinguish the *truth* of a report, which is a purely semantic matter, from its *correctness*, which may be a partly pragmatic matter. Thus they have wanted to maintain that it may be true to say “Peter believes that Paderewski is musical” and true to say “Paderewski is not musical” and yet, because of various pragmatic factors, it may be incorrect or misleading to say both of these things. Thus the puzzle is solved once we realize that our disinclination to take both reports to be true arises from our failure to distinguish the question of their truth from the question of their correctness.

There is no need to engage these philosophers on the alleged distinction between truth and correctness, for we can pose the puzzle exclusively in terms of the correctness of the various belief-reports, rather than their truth, and leave on one side the question of whether or how they might diverge. Thus what we must now maintain, in stating the puzzle, is that it is correct to report Peter as believing that Paderewski is musical and also correct to report Peter as believing that Paderewski is not musical and yet not correct to report him as believing both. [ibid., p. 89]

In the light of these considerations, an advocate of semantic relationism could suggest the following solution to the ‘Paderewski’ case of inconsistency, under the supposition that the two tokens of ‘Paderewski’ in the weak *de dicto* reading of the composite report (f) (p. 146) are used in the same way: to reject ‘*Correct*’-*Conjunction* instead of (*True*’-)*Conjunction* and leave open the question of whether these two rules are the same.

‘Correct’-Conjunction: A conjunction is *correct* if and only if its conjuncts are both *correct*.

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<sup>31</sup> The invalidity of inferences like (Inf 1) is acknowledged by Fine [2007, pp. 119-120].

Conjunction: A conjunction is true if and only if its conjuncts are both true.

The truth/correct distinction could also be used to (somehow) safeguard the other threatened principles (Substitution, Positive Disquotation, Rationality, Consequence of Rationality and Translation) by maintaining that *only versions of these principles involving the word 'correct' in the place of the word 'true' are rejected within semantic relationism*.

Renouncing the '*correct*'-principles undoubtedly allows us to solve versions of the puzzles having the word 'correct' in the place of the word 'true'. But what about the original versions of these puzzles involving the word 'true'? In the following passage of his book [2007], Fine finally acknowledges the existence of '*true*'-puzzles, whose solution requires the abandonment of 'true'-principles, in particular the principle of Conjunction. *The practicability of the previously mentioned proposal is consequently swept aside by Fine*.

[...] in a situation in which one intends to provide a faithful report of what Peter believes, it would be correct to give either report but it would not be correct to give both [...]. I am disinclined to draw any distinction between "correctness" and "truth" in the present case and so I would also want to say that the individual belief reports are true while the composite belief report is false. [Ibid., p. 100]

As an alternative strategy to (partially) safeguard the threatened 'true'-principles, an advocate of semantic relationism could suggest the safeguarding of at least restricted (*relational*) versions of these principles. We already met on pp. 126, 147 and 151 relational versions of Compositionality, Rationality and Consequence of Rationality; similar versions could possibly be devised for Conjunction, Substitution, Positive Disquotation and Translation. This strategy seems promising. However, things become more complicated as soon as another 'true'-principle, at risk in semantic relationism, comes on the scene: the *principle of non-contradiction*.

## 5. Puzzles of contradiction: problems

In this section, I shall argue that semantic relationism does not have the resources to solve the (classical and new) puzzles of contradiction, with the result that Fine's semantics contains true contradictions.

### 5.1 The 'Paderewski' case

Consider this principle:

Negative Disquotation: If a non-reticent subject *S* does not have the disposition to sincerely, on reflection and competently assert (or accept or assent to) sentence '*p*', which lacks indexical or pronominal devices or ambiguities, or equivalently if she has such a disposition towards 'I do not believe that *p*', then *S* does not believe that *p*.

The 'Paderewski' case of contradiction has been presented as follows:

- (a) Peter mistakes Paderewski for two people, a pianist and a politician. [Assumption]
- (b) Thinking of Paderewski as a pianist, Peter asserts sincerely, on reflection and competently “Paderewski has musical talent”. Thinking of Paderewski as a politician, he asserts (under the same conditions) “I do not believe that Paderewski has musical talent”. [Assumption]
- (c) Peter believes that Paderewski has musical talent. [From (b) using Positive Disquotation]
- (d) Peter does not believe that Paderewski has musical talent. [From (b) using Negative Disquotation]
- (e) Peter believes that Paderewski has musical talent and Peter does not believe that Paderewski has musical talent. [From (c) and (d) using Conjunction]
- (f) Report (e) is contradictory.

Semantic relationism does not provide a solution to this puzzle. Accordingly, it violates the principle of non-contradiction in four different respects.

*“Individual” contradiction:*

It follows from assumption (b), on the basis of the “Individual” Solutions (pp. 138, 139), that the *contradictory* individual reports (c) and (d) are both correct.

*“De re” contradiction:*

The *de re* reading of the self-*contradictory* composite report (e) is also (very likely) correct: semantic relationism does not provide instructions to disallow the move from (b), or from (c) and (d), to the *de re* reading of (e).

*“Weak de dicto” contradiction:*

Even the weak *de dicto* reading of the self-*contradictory* composite report (e) is correct if this report is made by someone who, like Peter, is in the dark about the fact that the pianist Paderewski is the politician Paderewski. Under this supposition, in fact, the reporter makes different uses of the name ‘Paderewski’ in (e). Hence (according to Consequence 2, p. 127) the name-pair ‘Paderewski’, ‘Paderewski’ in (e) is *negatively* coordinated, exactly as the corresponding name-pair in Peter’s statements “Paderewski has musical talent” and “I do not believe that Paderewski has musical talent”. Since these two name-pairs are *co-coordinated*, the weak *de dicto* reading of (e) will be correct, according to the “Weak *De Dicto* Composite” Solution (p. 140).

*“Strict de dicto” contradiction:*

Under the supposition that report (e) is made by someone who, like Peter, is in the dark about the fact that the pianist Paderewski is the politician Paderewski, the name-pair ‘Paderewski’, ‘Paderewski’ in (e) and the corresponding pair in Peter’s statements “Paderewski has musical talent” and “I do not believe that Paderewski has musical talent” are not only *co-coordinated* but also *cross-coordinated*: the first token

of ‘Paderewski’ in (e) is positively coordinated with its token in Peter’s statement “Paderewski has musical talent”, as well as the second token of ‘Paderewski’ in (e) is positively coordinated with its token in Peter’s statement “I do not believe that Paderewski has musical talent”. Therefore, the *strict de dicto* reading of the self-contradictory report (e) is correct, according to the “Strict *De Dicto* Composite” Solution (pp. 142-143).<sup>32</sup>

## 5.2 An (unconvincing) proposal to eliminate the individual and *de re* contradictions

*Rejecting Negative Disquotation:*

Following Salmon and the theorists of *de re* belief like Quine [1956], an advocate of semantic relationism could reject Negative Disquotation. Once this principle is rejected, the individual contradiction is eliminated by disallowing the move from (b) to (d), while the *de re* contradiction is eliminated by disallowing the move from (b) to the *de re* reading of (e) (p. 154).

*Objections:*

In face-to-face conversations, Fine has manifested strong disinclination towards this proposal, which introduces an unattractive asymmetry: on one hand, *S*’s sincere, on reflection and competent assertion of ‘*p*’ or of ‘I believe that *p*’ suffices to correctly attribute to *S* the belief that *p*, coherently with Positive Disquotation; on the other hand, her assertion (made under the same conditions) of ‘I do not believe that *p*’ does not authorize us to conclude that *S* does not believe that *p*, *contra* Negative Disquotation.

It should also be noted that the rejection of Negative Disquotation is hardly justifiable within semantic relationism. Salmon – as we have seen in Ch. 4, Section 2.3 – can justify this rejection by appealing to modes of presentation (guises). But Fine does not have modes of presentation in his theory. Neither can he exploit coordination for this aim, since coordination plays no role within the semantics of individual and *de re* read composite reports (pp. 138, 139, 140, 145).

At any rate, the proposal of rejecting Negative Disquotation could not plausibly be used to eliminate the *de dicto* contradictions.

## 5.3 Three other (unconvincing) proposals to eliminate the contradictions

*Linguistic proposal:*

In his book [2007, p. 36], Fine affirms: “[i]t seems intuitively unclear that [a speaker who mistakes a person for two homonymous people] has (j) the use of two names or, at least, (jj) the ambiguous use of a single name”. Taking for granted (j), instead of (jj)

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<sup>32</sup> Actually, the puzzles of contradiction are not a problem that Fine intends to solve in his book; nor does he even consider composite reports including *negative* reports such as ‘*S* believes that *a*<sub>2</sub> is *F* and *S* does not believe that *b*<sub>2</sub> is *G*’. On the other hand, a good account of belief reports is supposed to provide a solution to this kind of puzzles. Also, sufficient conditions for the correctness of the abovementioned kind of composite reports “naturally” follow using the model of Fine’s sufficient conditions for the correctness of ‘*S* believes that *a*<sub>2</sub> is *F* and *S* believes that *b*<sub>2</sub> is *G*’ illustrated in Section 2.2.

(as we have made so far), an advocate of semantic relationism could maintain that a speaker who mistakes Paderewski for two distinct individuals both called ‘Paderewski’ speaks a language (viz. an English idiolect) which contains *two distinct names* ‘Paderewski’ accidentally written and pronounced in the same way, say ‘Paderewski<sub>1</sub>’ and ‘Paderewski<sub>2</sub>’. In the light of this ascertainment, (c) and (d), as individual reports belonging to such an idiolect, could be rewritten as (c\*) and (d\*), while the composite report (e) could be rewritten as (e\*). Reports (c\*) and (d\*) are not contradictory, and report (e\*) is not self-contradictory.

- (c\*) Peter believes that Paderewski<sub>1</sub> has musical talent.
- (d\*) Peter does not believe that Paderewski<sub>2</sub> has musical talent.
- (e\*) Peter believes that Paderewski<sub>1</sub> has musical talent and Peter does not believe that Paderewski<sub>2</sub> has musical talent.

*Objection:*

This proposal succeeds in eliminating the contradictions at the linguistic level. However, at the content level, contradictions re-emerge: according to what was stated on pp. 138, 139 and 145, the intrinsic contents of the individual reports (c\*) and (d\*) are respectively the *contradictory* Russellian propositions

<Peter, B, <Paderewski, Having musical talent>>  
<<Peter, B, <Paderewski, Having musical talent>>, NEG>;

the intrinsic content of the *de re* reading of the composite report (e\*) is the self-*contradictory* conjunction of these propositions; and the intrinsic content of the weak *de dicto* reading of (e\*) is the self-*contradictory* coordinated proposition

(15) <<<Peter, B, <Paderewski, Having musical talent>>, CONJ,  
<<Peter, B, <Paderewski, Having musical talent>>, NEG>>, C>. <sup>33</sup>

*Multiple-Belief-relation proposal:*

In order to eliminate the contradictions at the content level, an advocate of semantic relationism might alternatively suggest that the two token verbs ‘believe’ within the individual reports (c) and (d) or within the composite report (e) express *different* belief relations; in other words, the verb ‘believe’ would be ambiguous.

*Objection:*

It is unclear to me how, within semantic relationism, the two (alleged) belief relations would be distinguished.

*A relational principle of non-contradiction:*

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<sup>33</sup> Notice that, at the content level, contradictions arise not only in the ‘Paderewski’ case but also in any other (classical or new) puzzling case of contradiction. For example, in the ‘Cicero’/‘Tully’ case, the intrinsic content of the *de re* and weak *de dicto* readings of “Tom believes that Cicero is bald and Tom does not believe that Tully is bald” are respectively the self-contradictory propositions:  
<<Tom, B, <Cicero, Baldness>>, CONJ, <<Tom, B, <Cicero, Baldness>>, NEG>>;  
<<<Tom, B, <Cicero, Baldness>>, CONJ, <<Tom, B, <Cicero, Baldness>>, NEG>>, C>.

By exploiting Fine's distinction between positively and negatively coordinated propositions (p. 125), an advocate of semantic relationism could maintain that only propositions of the form  $\langle\langle p \& \sim p, C^+ \rangle\rangle$  are *genuinely* contradictory, whereas propositions of the form  $\langle p \& \sim p, C^+ \rangle$ , or  $p \& \sim p$ , or  $p$  and  $\sim p$  are not. If so, none of the true contradictions considered on p. 154 is problematic, since none of them has the genuinely contradictory form  $\langle p \& \sim p, C^+ \rangle$ .

*Objection:*

My point is that semantic relationism contains violations of the *standard* (classical) principle of non-contradiction; and, undoubtedly, the propositions considered on p. 156 are (or incorporate) standard contradictions.

## 6. Token propositions

In his recent "Comments on Scott Soames' 'Coordination Problem'", Fine enriches his theory of meaning with a new ingredient, *token propositions*, which fit the role of intrinsic content of the *strict de dicto* reading of composite and hybrid reports. The introduction of this new kind of proposition determines a significant course change in Fine's original project, turning his semantic relationism into a new sophisticated kind of Fregeanism.

Besides providing a characterisation of the notion of a token proposition and its basic constituents (token individual, token property and token relation), in this section I shall argue that Fine's resort to token propositions does not suffice to convincingly eliminate the *strict de dicto* contradiction (p. 154); moreover, it raises new difficulties.

### 6.1 Characterisation of token objects

[...] there is a third notion of content to which I have been tempted to appeal (though I did not discuss it in *Semantic Relationism*). We might unimaginatively call it *tertiary content* – where uncoordinated content [i.e. the standard Russellian proposition] is taken to be *primary* and coordinated content [i.e. standard Russellian proposition plus positive or negative coordination] to be *secondary*. Consider all of the propositions that are realized in propositional acts such as believing, asserting, intending and the like. They form a vast coordinated *body* of propositions, where some of the occurrences of any given individual in these propositions are linked to others and some are not. Thus if I believe that Hesperus is brighter than Phosphorus then this will put an occurrence of a negatively coordinated proposition *that x is brighter than x* into the body of propositions. If you now believe that Phosphorus is brighter than Hesperus then this will put another occurrence of the negatively coordinated proposition *that x is brighter than x* into the body of propositions, but one in which the first *x* of the first proposition is [positively] coordinated with the second *x* of the second proposition and the second *x* of the first proposition is [positively] coordinated with the first *x* of the second proposition. On the other hand, if a third person believes that

Hesperus is brighter than Phosphorus then no new proposition is added to the body of propositions, since there is not even a relational difference between what I believe and what the third person believes.

This universal body of propositions is an abstract structure, existing at the level of semantic value, even though its composition is determined by people's actual acts of belief and assertion and the like. As we have noted, the same coordinated proposition may have several occurrences within the body of propositions; and so let us call these occurrences *token* propositions. The identity of a token proposition is partly given by its intrinsic content, i.e. by the underlying coordinated proposition, and partly by its coordinative links to other token propositions. Different tokens of the same coordinated proposition are distinguished to the extent that this is required to account for the coordinative links between them.

Just as we may differentiate a proposition into various token propositions within the universal body of propositions, so may differentiate an individual into various token individuals. For to each occurrence of an individual in a token proposition will correspond a token individual, as given by the class of all those occurrences of the individual with which it is [positively] coordinated. Thus in the example above, there will be two tokens of the individual *x* (which in fact are indiscernible from one another). Any token proposition will involve a certain predicative content and certain token individuals; and it will be possible to uniquely determine the token proposition from its content and its token individuals. [Fine 2010, pp. 479-480]

On the basis of what Fine states in this passage, the following characterisation of the notion of a token individual can be put forward:

Characterisation 5: *A token of an individual* is an abstract entity identified by a class of occurrences of this individual within a given body of propositions, such that every pair of occurrences belonging to the class is positively coordinated and occurrence positively coordinated with an occurrence in the class is also in the class.

A token property/relation can analogously be characterised as a class of positively coordinated occurrences, within a given body of propositions, of that property/relation. A *token proposition* can finally be defined as a structured proposition whose basic constituents are token individuals, token properties and token relations.

## **6.2 A (disputable) proposal to eliminate the strict *de dicto* contradiction**

By discussing the 'Paderewski' case of contradiction on pp. 153-154, we have seen that the strict *de dicto* reading of the (*prima facie*) self-contradictory report (e) is *correct* under the supposition that this report is made by someone who, like Peter, is in the dark about the fact that the pianist Paderewski is the politician Paderewski. In fact, coherently with the "Strict *De Dicto* Composite" Solution, co-coordination holds under this supposition, since the two tokens of 'Paderewski' in (e) are negatively coordinated exactly as those in Peter's statements "Paderewski has musical talent" and "I do not believe that Paderewski has musical talent"; and cross-coordination also holds, because the first token of 'Paderewski' in (e) is positively coordinated with its

token in Peter’s statement “Paderewski has musical talent” while the second token of this name in (e) is positively coordinated with its token in Peter’s statement “I do not believe that Paderewski has musical talent”.

- (e) Peter believes that Paderewski has musical talent and Peter does not believe that Paderewski has musical talent.

It might seem that the introduction of the notion of a token proposition allows the elimination of the strict *de dicto* contradiction. In fact, suppose that report (e) is part of a piece of discourse which includes statements (1) and (2). The occurrences of the individual Paderewski within the body of Russellian propositions expressed by such a piece of discourse – i.e. (16), (1p), (2p) plus maybe other propositions – can be used to construct two *different* token individuals Paderewski: one is identified by the class of occurrences of Paderewski containing his first occurrence in (16), his occurrence in (1p) (plus maybe other occurrences); the other token individual Paderewski is identified by the class of occurrences of Paderewski containing his second occurrence in (16), his occurrence in (2p) (plus maybe other occurrences). Now, the token proposition *that Peter believes that Paderewski has musical talent and Peter does not believe that Paderewski has musical talent* expressed by the strict *de dicto* reading of (e) – i.e. the tertiary content of (e) – is *not* (self-)contradictory, thanks to the fact that the two abovementioned token individuals Paderewski entering this proposition differ.

- (1) Paderewski is a brilliant pianist.  
 (2) Paderewski is a charismatic statesman.
- (1p) <Paderewski, Being a brilliant pianist>  
 (2p) <Paderewski, Being a charismatic statesman>
- (16) <<Peter, B, <Paderewski, Having musical talent>>, CONJ, <<Peter, B, <Paderewski, Having musical talent>>, NEG>>

*Objection:*

It seems to me that the strict *dicto* contradiction cannot be convincingly eliminated in the following particular case. Consider a piece of discourse including report (e) (above) and *no* term referring to Paderewski except for those contained in (e). Since coordination has only been characterized among terms which *belong to the same piece of discourse* (see Consequence 3, p. 129) and, derivatively, among occurrences of objects within the body of propositions expressed by such a piece of discourse, the token individuals Paderewski in the token proposition expressed by (e) will be identified in this specific case (in accordance with Characterisation 5, p. 158) by the *singletons* respectively containing the first and second occurrence of Paderewski in (16). Now, if these are the tokens of Paderewski entering the token proposition expressed by the strict *de dicto* reading of (e), I wonder how such a proposition could *significantly* differ from the *self-contradictory* proposition (16) – I mean, if proposition (16) is self-contradictory despite its containing *two distinct* occurrences of Paderewski, then the token proposition expressed by (e) will be expected to be self-contradictory as well despite its containing the two singletons of these occurrences; in

other words, it is unclear to me how the move from talking of occurrences to talking of singletons of those very same occurrences would eliminate the contradiction.

In sum, it seems to me that the contradiction is not convincingly eliminated not only at the individual, *de re* and weak *de dicto* levels but also at the strict *de dicto* level.

### 6.3 Additional doubts about the notion of token proposition

*Drift towards Fregeanism:*

Fine [2007, p. 5] describes semantic relationism as

an attempt to defend a [Russellian] position within the philosophy of language. For coordination can do much of the work of sense; and, by adopting a relationist view of coordination, the [Russellian philosopher] can secure many of the advantages of the Fregean position without being committed to the existence of sense.

On the other hand, once the notion of token proposition is introduced in relational semantics, a cornerstone of Russellianism, viz. the Millian thesis that proper names contribute to propositions solely with their referent, is given up in belief reports and possibly in simple sentences (if simple sentences, besides having primary and secondary contents, i.e. besides expressing Russellian and coordinated propositions respectively, also have *tertiary content*, i.e. also express token propositions): as we saw on pp. 158-159, within a piece of discourse containing (e), (1) and (2), the name ‘Paderewski’ contributes to the token proposition expressed by the strict *de dicto* reading of (e), as well as to those expressed by (1) and (2) (if any), with *different* entities viz. with two different tokens of the individual Paderewski.<sup>34</sup>

*Infinite regress with semantic contents?*

I already pointed out (pp. 132-133) that, for Fine, (positive or negative) coordination among names shows up as (positive or negative) coordination among the objects to which they correspond (viz. occurrences of individuals, of properties, of relations within Russellian propositions). For example, positive coordination between the two tokens of ‘Paderewski’ in (17) shows up as positive coordination between the two occurrences of the individual Paderewski in proposition (17p). Could coordination also hold among occurrences of the same *token* object within token propositions? There seems to be no contraindication to that. Thus we might say that e.g. the positive coordination between ‘Paderewski’, ‘Paderewski’ in (17) shows up as positive coordination not only between the occurrences of Paderewski in (17p) but also between the two occurrences of the (very same) token of Paderewski contained in the token proposition *that Paderewski is Paderewski*.

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<sup>34</sup> Perhaps, a violation of the Millian Thesis already exists at the level of secondary content: within e.g. sentence “Cicero admires Tully”, the name ‘Cicero’ contributes to the coordinated proposition  $\langle\langle\text{Cicero, Admiration, Cicero}\rangle, C\rangle$  expressed by such a sentence both with its referent (intrinsic content) and with the relation of negative coordination holding between ‘Cicero’ and ‘Tully’ (extrinsic content).

- (17) Paderewski is Paderewski.  
 (17p) <Paderewski, =, Paderewski>

Now, taking for granted Fine's distinction (mentioned in the passage quoted on p. 157) among *primary, secondary and tertiary content* of statements (which are respectively Russellian propositions, coordinated propositions and token propositions) and using the notion of coordination among occurrences of the same token individual, we could introduce a *fourth level of content*: this will be a *coordinated token proposition*, i.e. a structured proposition formed by the tertiary content (token proposition) plus coordinative links among its constituents. For example, the quaternary content of (17) will be the positively coordinated (token) proposition formed by the token proposition *that Paderewski is Paderewski* plus the relation of positive coordination holding between the two occurrences of the token individual Paderewski within it.

Even this is not the end of the story: exactly as tertiary content (token proposition) emerges from Russellian propositions plus coordinative links among their constituents, a *quinary* content emerges from token propositions plus coordinative links among their constituents (this further content is something like a *second-order token proposition*, i.e. a structured proposition composed of entities identified by sets of positively coordinated occurrences of *token* objects). Proceeding in this way, token propositions of higher and higher order could be introduced.

Now, if Fine is right in maintaining that a sentence has three contents (instead of just one, the primary content, as e.g. Salmon claims), I wonder why the number of contents assigned to the sentence should stop exactly at three instead of going on *ad infinitum*.

*True illogical belief:*

Consider a piece of discourse containing Peter's statement "Paderewski is not Paderewski", (1), (2) and the hybrid report (d).

- (1) Paderewski is a brilliant pianist.  
 (2) Paderewski is a charismatic statesman.  
 (d) Peter believes that Paderewski is not Paderewski.

Under its strict *de dicto* reading, report (d), made by someone who fails to recognize the pianist Paderewski and the politician Paderewski as the same person, is correct (according to the sufficient conditions for the correctness of strict *de dicto* reading of hybrid reports hinted on pp. 143-144). Its content is the token proposition *that Peter believes that Paderewski is not Paderewski*, which contains two *different* tokens of the individual Paderewski: one is identified by the class of positively coordinated occurrences of Paderewski including his first occurrence in the Russellian proposition expressed by (d), his occurrence in (1p), etc.; the other token individual Paderewski is identified by the class of positively coordinated occurrences of Paderewski including his second occurrence in the Russellian proposition expressed by (d), his occurrence in (2p), etc.

So, Peter believes, at the strict *de dicto* level, that one token individual Paderewski *is not identical to* another token of Paderewski. Since – as we have just seen – these two token individuals *differ*, such a belief of Peter will be *true*. But this

conclusion is unacceptable: Peter's belief that Paderewski is not Paderewski is unquestionably false (whatever is the "level" considered).

In conclusion, Fine's change of his original project from Russellianism enriched with coordination into a new sophisticated kind of Fregeanism involving token propositions does not really allow him to safeguard the principle of non-contradiction within relational semantics; in addition, the notion of token proposition is problematic in some respects. It seems to me opportune, then, to come back to Fine's original project and to devise a *purely Russellian* (rather than a Fregean) route to solve the puzzles of contradiction. This is what I shall try to do in the next (and last) chapter of my dissertation.

## Chapter 6

### A New Account of Belief Reports

In Chapter 2, I introduced a number of new puzzles about belief. These puzzles can be organized into four groups:

- I. Puzzles in which a rational subject believes and disbelieves (i.e. believes the negation of)  $a$  to be  $F$  under two different modes of presentation that the subject *realizes* are modes of presentation of the same thing – e.g. the ‘George Eliot’/‘Mary Ann Evans’ case and the ‘Superman’/‘Clark Kent’ case;
- II. Puzzles in which a rational subject is allowed to believe and disbelieve  $a$  to be  $F$  under the same mode of presentation, since her contradictory beliefs that  $a$  is  $F$  and that  $a$  is not  $F$  are *separately* stored in her mind – these are puzzles involving divided mind (e.g. the case of Martin the drunken lover) or conflicting mind (e.g. the judge case) or “perspectives” (e.g. the colour error theorist case) or non-conscious beliefs (e.g. the case of Dr. Schiffer);
- III. Puzzles in which a rational subject can believe and disbelieve  $a$  to be  $F$  under the same mode of presentation, as a result of her mistaking the individual  $a$  or the property of Being  $F$  for two *indiscernible* things – e.g. the ‘Bruce’ case and the Variant of the ‘Paderewski’ case;
- IV. Puzzles in which a *non-classical logician* rationally believes and disbelieves  $a$  to be  $F$  under the same mode of presentation – e.g. the dialetheist case.

I argued in Chapters 3 and 4 that even highly sophisticated accounts of belief reports involving modes of presentation like Schiffer’s and Saul’s accounts are unable to solve at least some of the puzzles I-III. In particular, these accounts encounter obstacles with the puzzles of type III (viz. the ‘Bruce’ case). The solution to this kind

of puzzles seems to require the introduction of a device deeply different from modes of presentation, *coordination*.

We saw in Chapter 5 that, using coordination, Fine is able to solve the new puzzles of inconsistency and impossibility of type III ('Bruce' case) and type I ('Superman'/'Clark Kent' case), besides solving the classical puzzles of inconsistency and impossibility. On the other hand, he reaches this achievement by giving up a number of important principles including Conjunction, Substitution, Positive Disquotation (p. 166), Compositionality and possibly Translation. Moreover, no compelling solution to the new puzzles of inconsistency of type II (the colour error theorist case) and to the puzzles of *contradiction* seems available within Fine's account.

My goal in this chapter is to devise a new account of belief reports (call it *New Account*) able to solve all puzzles about belief without resorting to modes of presentation. This account aims to keep the advantages of Fine's account whilst avoiding its disadvantages. I shall list below the main differences between the two accounts.

First, the New Account is, from a semantic point of view, a standard *Russellian* account: it assigns to belief reports the same semantic content and the same truth-values that Salmon assigns to them (Ch. 4, Section 2). Consequently, in the New Account, the principles of Conjunction, Substitution, Positive Disquotation, Compositionality and Translation are safeguarded, and no semantic role is played within it by coordination. As in Salmon's account, the puzzles of inconsistency, impossibility and contradiction are solved by giving up respectively the principles of Rationality, Consequence of Rationality and Negative Disquotation (p. 167). The rejection of these principles, nevertheless, is not justified, as does Salmon, by invoking guises, but by using two devices radically different from modes of presentation: cognitive coordination and belief subsystems.

Whereas Fine's coordination holds primarily among linguistic expressions and derivatively among occurrences of objects within (semantically) expressed Russellian propositions, *cognitive coordination* just holds among occurrences of objects within Russellian propositions believed by subjects.<sup>1</sup> It is a *psychological* and *subjective* (rather than a semantic and objective) relation. In particular, on Fine's view, coordination is objective in that if a subject *S* who understands a piece of discourse containing two co-referential token names raises the question of whether they co-refer, then the two token names (and the corresponding occurrences of their referent within the expressed propositions) are negatively coordinated for any subject (Characterisation 1, p. 127); instead, in the New Account the fact that *S* raises such a question just shows that the two occurrences of the referent of these names are negatively coordinated for *S* but not necessarily for everybody.

*Belief subsystems* resemble mental files, in that both are collections/sets of "believed" pieces of information (viz. mental sentences in the case of files; token beliefs or believed Russellian propositions in the case of subsystems). A crucial difference, nevertheless, exists between these two devices. A file (Ch. 4, Section 4) is intuitively a mode of presentation of an object: it collects mental sentences which "present" that object in a given way. Instead, a subsystem possesses no special relationship to any particular object or way of presenting it. Rather, it stores

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<sup>1</sup> I will not attribute any special meaning to the adjective 'cognitive' accompanying the word 'coordination' (in particular, I will not take it to mean something that entails knowledge). I will simply use it in the wide sense common in psychology and cognitive science, where it means something like 'intellectual'.

Russellian propositions believed by a given subject, *S*, that *S* is disposed to conjoin and to believe their conjunction. When two propositions are not stored in the same subsystem but in two different ones, *S* is *not* disposed to both conjoin these propositions and believe their conjunction. Thanks to this feature, the notion of subsystem allows us to solve the puzzles of type II (a kind of puzzles that Fine’s account does not have the resources to solve) e.g. the colour error theorist case: Rob in his everyday life believes that fire engines are red and as an colour error theorist he believes that fire engines are not red, but neither in his everyday life nor as a colour error theorist does he believe the conjunction that fire engines are red and fire engines are not red, because his two contradictory beliefs about fire engines are stored in distinct subsystems.

This chapter will be organized into three large sections. Section 1 will present in detail the different components of the New Account, in particular belief subsystems and cognitive coordination. Section 2 will illustrate the solutions to the classical and new puzzles of inconsistency, impossibility and contradiction in terms of coordination and subsystems. Section 3 will use these two psychological devices to solve certain additional problems that typically affect the Russellian accounts of belief reports (including the New Account).

## 1. The New Account

After a brief review of the Russellian semantics of belief reports (Section 1.1), this section will propose intuitive and technical characterisations of belief subsystems (Sections 1.2 and 1.3) and cognitive coordination (Section 1.4). In order to solve certain difficulties that affect coordination and subsystems (Section 1.5), these two notions will be “relativized” to a third notion, *networks* (Section 1.6); characterisations of coordination and subsystems relativized to networks will then be provided (Sections 1.7 and 1.8). Finally, it will be argued that neither subsystems nor coordination are modes of presentation (Section 1.9) and an important constraint will be introduced to which these devices are subject in rational believers (Section 1.10).

### 1.1 Semantics of belief reports

The New Account embodies the Russellian semantics of belief reports (already presented in Ch. 4, Section 1.1). Therefore, according to this account, a belief report like (1) expresses the (standard) Russellian proposition (1p), where *B* is the dyadic relation of belief holding between the subject, Tom, and the Russellian proposition the clause ‘that Cicero is bald’ refers to, i.e. <Cicero, Baldness>. Report (1) is true if and only if its semantic content, proposition (1p), is true, namely if and only if Tom stands in the belief relation *B* to <Cicero, Baldness>.

- (1) Tom believes that Cicero is bald.  
 (1p) <Tom, B, <Cicero, Baldness>>

In case the believer is a non-reticent speaker, the truth-conditions of a sentence reporting a conscious belief can more interestingly be formulated as follows:

- (\*) A non-reticent subject  $S$  consciously believes the Russellian proposition that  $p$  if and only if there is at least one sentence, expressing such a proposition,  $S$  has sincerely, on reflection and competently the disposition to assert (or accept or assent to).

Now, given these assumptions, the New Account complies with the principles of Positive Disquotation, Substitution, Generalized Substitution and Translation.

Positive Disquotation: If a subject  $S$  has the disposition to sincerely, on reflection and competently assert (or accept or assent to) sentence ' $p$ ', which lacks indexical or pronominal devices or ambiguities, then  $S$  believes that  $p$ .

Substitution: The truth-value of a sentence ' $p$ ' does not change if a singular term ' $T$ ', occupying a given position in ' $p$ ', is replaced with another singular term which, in that position, has the same referent as ' $T$ '.

Generalized Substitution: The truth-value of a sentence ' $p$ ' does not change if an expression ' $E$ ', occupying a given position in ' $p$ ', is replaced with another expression which, in that position, has the same semantic content as ' $E$ '.<sup>2</sup>

Translation: "If a sentence of one language expresses a truth in that language, then any translation of it into any other language also expresses a truth (in that other language)." [Kripke 1988, p. 114]

In fact, coherently with the two abovementioned principles of substitution and with Translation, inferences like (Inf 1) and (Inf 2) are valid in the New Account: reports (P1a) and (C1), as well as reports (P2) and (C2), express the same Russellian propositions. Instead, an inference like (Inf 3), where reports (P3a) and (C3) (involving definite descriptions) express different general propositions, turns out invalid. Its invalidity, however, does not threaten Substitution. In fact, this principle only applies to singular terms, whereas definite descriptions, from a Russellian point of view (Ch. 4, Section 1), are not *singular* terms (i.e. terms whose semantic content is identical to their referent): the semantic content of a definite description is a denoting property, which of course is something distinct from its denotation.

(Inf 1)

(P1a) Tom believes that Cicero is bald.

(P1b) Cicero is Tully.

(P1c) The property of Baldness is the property of Shmaldness.

∴ (C1) Tom believes that Tully is shmald.

(Inf 2)

(P2) Pierre croit que Londres est jolie.

∴ (C2) Pierre believes that London is pretty.

(Inf 3)

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<sup>2</sup> Remember that, within Russellianism (and so within the New Account), the (semantic) content of a sentence is a Russellian proposition; the content of a (non-empty) singular term is its referent; the content of a definite description is a denoting property; the content of a predicate is a property or a relation. For more details, see Chapter 4, Section 1.

- (P3a) Tom believes that the most famous Roman orator was bald.  
 (P3b) The most famous Roman orator is the Roman consul who wrote about friendship and old age.  
 ∴ (C3) Tom believes that the Roman consul who wrote about friendship and old age was bald.

By contrast, the principles of Rationality, Consequence of Rationality and Negative Disquotation do not hold within the New Account.

Rationality: If a subject simultaneously believes that  $p$  and believes that  $\sim p$ , then she is irrational.

Consequence of Rationality: If a subject  $S$  believes that  $p \& \sim p$ , or that  $a \neq a$ , or that  $a$  is more/less  $F$  than  $a$ , then she is irrational.<sup>3</sup>

Negative Disquotation: If a non-reticent subject  $S$  does not have the disposition to sincerely, on reflection and competently assert (or accept or assent to) sentence ' $p$ ', which lacks indexical or pronominal devices or ambiguities, then  $S$  does not believe that  $p$ .

For given the truth-conditions (\*) of belief reports (p. 166), if an intuitively *rational* subject who does not know that *Cicero is Tully* has the disposition to assert sincerely, on reflection and competently both "Cicero is bald" and "Tully is not bald", or any one of the sentences

- Cicero is bald and Tully is not bald
- Cicero is not Tully
- Cicero is balder than Tully,

he will believe and disbelieve proposition <Cicero, Baldness> *contra* Rationality, or he will believe one of the following impossible (viz. illogical) propositions *contra* the Consequence of Rationality:

- <<Cicero, Baldness>, CONJ, <<Cicero, Baldness>, NEG>>
- <Cicero,  $\neq$ , Cicero>
- <Cicero, Being balder than, Cicero>.

Furthermore, in accordance with the truth-conditions (\*), a non-reticent speaker can believe the Russellian proposition that Tully is bald (i.e. <Cicero, Baldness>, as he is disposed to assert sincerely a sentence expressing such a proposition, "Cicero is bald"), even though *contra* Negative Disquotation he has no disposition to assert "Tully is bald".

This is, from a *semantic* point of view, the New Account. From this point of view, no significantly difference occurs between this and Salmon's, Braun's and Saul's Russellian account.<sup>4</sup> All innovations introduced by the New Account concern

<sup>3</sup> The Consequence of Rationality has been proved to be a consequence of the principle of Rationality in Ch. 4, p. 100, n. 8.

<sup>4</sup> The only noteworthy difference between Salmon's view and the New Account concerns the analysis of second-order belief reports. For Salmon sentences of the form ' $\alpha$  believes that  $\phi_\beta$ ' or ' $\alpha$  believes of  $\beta$

the *psychological* point of view: no kind of modes of presentation (mental sentences, files, etc.) is involved in its solution to the puzzles about belief; instead, the more “powerful” notions of belief subsystem and cognitive coordination are introduced for this aim. The next sections of this chapter will be devoted to the presentation of these two notions, starting with subsystems.

## 1.2 Davidson and Fogelin

The notion of a belief subsystem originates in certain intuitions of Donald Davidson [2004], which are also partly shared by Robert Fogelin [1993], the author responsible for the terminology ‘belief subsystem’. Before illustrating the *New Account of belief subsystems*, the reader might find helpful an examination of Davidson’s intuitions which underpin such an account.

A vivid overview of these intuitions is contained in the following passage of Davidson’s article “Who is Fooled?” [2004d, pp. 220-221]:

I suggested that two obviously opposed beliefs could coexist only if they were somehow kept separate, not allowed to be contemplated in a single glance. I spoke of the mind as being *partitioned*, meaning no more than that a metaphorical wall separated the beliefs which, allowed into consciousness together, would destroy at least one.

The idea obviously echoes a long tradition: Plato, Aristotle, Augustine, Butler, Freud are just a few of those who have made semi-autonomous parts of the soul part of their philosophy of mind. But my echo is a feeble one. I do not assume that the divisions are fixed, or that they deserve such names as conscience, courage, intellect or id. More important, I do not think of the boundaries, however permanent or temporary, as separating autonomous territories. The territories overlap: there is a central core of mostly ordinary truths which the territories share (much as all rational creatures necessarily share a general, and mostly correct, picture of the world).

[...] The image I wished to invite was not, then, that of two minds each somehow able to act like an independent agent; the image is rather that of a single mind not wholly integrated; a brain suffering from a perhaps temporary self-inflicted lobotomy.

In this passage, Davidson sheds light on a number of properties that subsystems have. Let us examine each of these properties starting with the following:

- A. Two *obviously* opposed contradictory beliefs can coexist in a rational mind only if they are somehow kept separate, i.e. they are stored in distinct subsystems.

Feature A is also stated in another Davidson’s article, “Paradoxes of Irrationality” [2004c, p. 181]:

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that  $\phi_t$ ’ on one hand and sentences of the form ‘ $\alpha$  believes  $\beta$  to be (something/someone) such that  $\phi_t$ ’ on the other express different Russellian propositions (for details on Salmon’s distinction and for criticism to it, see Ch. 4, Section 2.6). Instead, in the New Account, sentences having anyone of the abovementioned forms just express the Russellian proposition  $\langle \alpha, B, \langle \beta, \phi\text{-ing} \rangle \rangle$ .

[...] if we are going to explain irrationality we must assume that the mind can be partitioned into quasi-independent structures [...]. To constitute a structure of the required sort, a part of the mind must show a larger degree of consistency or rationality than is attributed to the whole. [...] The idea is that if parts of the mind are to some degree independent, we can understand how they are able to harbour inconsistencies [...].<sup>5</sup>

Notice, regarding Feature A, that if on one hand it is true that two *obviously* contradictory beliefs can coexist in a rational mind only if they are stored into separate structures/compartments/subsystems (assuming that the believer is not a paraconsistent logician), on the other hand *nothing prevents two non-obviously contradictory beliefs from coexisting in the same subsystem*. Consider, for instance, Tom's beliefs that Cicero is bald and that Tully (i.e. Cicero) is not bald. Although these beliefs are contradictory (at least if we identify them through their Russellian content),<sup>6</sup> they are *not obviously* contradictory for Tom, as a consequence of his failure to realize that *Cicero is Tully*. For this reason, these beliefs can be stored in the same subsystem of Tom's belief system.

Another example of non-obviously contradictory beliefs is provided by the 'Bruce' case, in which Susan believes that Bruce is Bruce (viz. one Bruce is identical to himself) and also that Bruce is not Bruce (viz. one Bruce is not identical to the other). These beliefs belonging to Susan, which are about the same person, Bruce, are contradictory; however, they are *not obviously* contradictory at least for Susan, who mistakes Bruce for two indiscernible and homonymous people. As such, these beliefs can be stored in the same subsystem of Susan.

So, the distinction between obviously and non-obviously contradictory beliefs provides a criterion to determine if two beliefs held by a rational subject are stored in different subsystems. The notion of *obviously* contradictory beliefs, nevertheless, is not so clear. A clearer criterion to determine if two beliefs held by a rational subject are stored in different subsystems is offered by Feature B.

- B. If a subject is not disposed to "put together" two contradictory beliefs, that  $p$  and that  $\sim p$ , i.e. she is not disposed to infer from them the belief that  $p \& \sim p$ , then the beliefs that  $p$  and that  $\sim p$  are separately stored in her mind, viz. they are stored in distinct subsystems.

As an example of Feature B, reconsider the judge case, in which Mr. Justice Bennett, as a judge, believes that Jack should be condemned while, as a humane person, he believes that Jack should not be condemned. His two contradictory beliefs about Jack are stored in distinct subsystems; in fact, coherently with Feature B, neither as a judge nor as a humane person does Mr. Bennett believe the conjunction that Jack should be condemned and Jack should not be condemned. On the contrary, in the 'Paderewski' case, Peter's beliefs that Paderewski has musical talent and that Paderewski has no musical talent can be stored in the same subsystem, considering that Peter believes the

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<sup>5</sup> Remember that for Davidson the term 'irrational' does not mean non-rational. Rather, it means *prima facie* non-rational or seemingly non-rational: "For the irrational is not merely the non-rational, which lies outside the ambit of rational; irrationality is a failure within the house of reason. When Hobbes says that only man has 'the privilege of absurdity' he suggests that only a rational creature can be irrational" [2004c, p. 169]. Unlike Davidson, I take the word 'irrational' to mean non-rational.

<sup>6</sup> In Section 3.3, I shall argue that, within Russellianism, beliefs should be identified precisely in this way.

conjunction that [the pianist] Paderewski has musical talent and [the politician] Paderewski has no musical talent.

Davidson's endorsement of Feature B is evident in several passages of his articles, for example these:

[...] people can and do sometimes keep closely related but opposed beliefs apart. To this extent we must accept the idea that there can be boundaries between parts of the mind; I postulate such a boundary somewhere between any (obviously) conflicting beliefs. [2004a, p. 211]

[It is important] to distinguish firmly between accepting a [self-]contradictory proposition and accepting separately each of the two contradictory propositions, and the latter requiring, or perhaps just expressing, the idea of thoughts held apart. [2004d, p. 221]

We cannot, I think, even make sense of someone's accepting a plain and obvious contradiction: no one can believe a proposition of the form ( $p$  and not- $p$ ) while appreciating that the proposition is of this form. [...] But if someone has inconsistent beliefs or attitudes, as I have claimed (objective) irrationality demands, then he must at times believe some proposition  $p$  and also believe its negation. It is between these cases that I would draw the line: someone can believe  $p$  and at the same time believe not- $p$ ; he cannot believe ( $p$  and not- $p$ ). In the possible case, of simultaneously, and in some sense actively, believing contradictory propositions, the thinker fails to put two and two (or one and one) together, even though this failure is a failure by his own (and our) standards. This is why I have urged [...] that it is only by postulating a kind of compartmentalization of the mind that we can understand, and begin to explain, irrationality. [2004b, p. 198]

Consider these four statements:

- (2) D believes that he is bald.
- (3) D believes that he is not bald.
- (4) D believes that (he is bald and he is not bald).
- (5) D does not believe that he is bald.

[...] It is tempting, of course, to suppose that (3) entails (5), but if we allow this, we will contradict ourselves. In the attempt to give a consistent description of D's inconsistent frame of mind, we might then say that since D both believes that he is not bald and believes that he is bald (which is why (5) is false) he must then believe that he is bald and [he is] not bald, as (4) states. This step also must be resisted: nothing that a person could say or do would count as good enough grounds for the attribution of a straightforwardly and obvious contradictory belief [...]. It is possible to believe each of two statements without believing the conjunction of the two. [2004a, pp. 199-200]

Let us now consider two other features of subsystems which emerge in the first quoted passage from Davidson found on p. 168 of my dissertation:

- C. Two obviously contradictory beliefs can coexist in a rational mind (within distinct subsystems) only if at least one of these beliefs is non-conscious (in fact, if the two would come into consciousness together, at least one would be destroyed);
- D. Two obviously contradictory beliefs can coexist in a rational mind (within distinct subsystems) only if they are not contemplated in a single glance.

Neither Feature C nor Feature D will be included in the New Account of belief subsystems. The former feature is falsified by the judge case: Mr. Justice Bennett is in conflict with himself because of his believing from a judicial perspective that Jack should be condemned and his believing from a humanitarian perspective that Jack should not be condemned; his inner conflict (described in detail in Ch. 2, Section 3.2) requires that both his contradictory beliefs about Jack are *conscious*. Feature D is falsified by the dialetheist case (Ch. 2, Section 5.4): a dialetheist believes that the liar sentence is true and that the liar sentence is not true by contemplating his contradictory beliefs about the liar sentence in one single glance.

The following features of belief subsystems, described in the passage quoted on p. 168, shed light on their ontological nature and structure.

- E. To speak of the mind as being partitioned in distinct belief subsystems is no more than to say that a metaphorical wall separates pairs of contradictory beliefs.
- F. The divisions among the subsystems are not fixed, they are not permanent.
- G. The boundaries do not separate autonomous territories; the territories in fact overlap.

The last three features will be included in the New Account of subsystems, together with the following feature:

- H. The suggested image of the mind (divided into subsystems) is not that of two (or more) minds each somehow able to act like an independent agent; the image is rather that of a single mind not wholly integrated.

What does it mean exactly, for Davidson, that a rational mind is *not wholly integrated*? A possible answer to this question stems from Feature B (p. 169): the set of all beliefs held by a subject *S* is not integrated in the sense that it is *not closed under conjunction*, i.e. *S* can believe that *p* and that *q* without believing their conjunction, that *p&q*. Instead, *subsystems* are (presumably) integrated, in that they are closed under conjunction: if *S* believes that *p* and that *q* from the same subsystem, then she also believes that *p&q* from that subsystem.<sup>7</sup>

One last feature attributed by Davidson to subsystems deserves a mention:

- I. A belief may cause another belief without being a reason for it if the two beliefs are stored in distinct subsystems.

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<sup>7</sup> This issue will be re-examined and clarified on p. 180.

Feature I provides an additional criterion, besides Feature B, for determining if two beliefs are stored in distinct subsystems. In connection with Feature I, Davidson [2004c, pp. 184-185] writes:

the mind is to be regarded as having two or more semi-autonomous structures. This feature we found to be necessary to account for mental causes that are not reasons for the mental states they cause. Only by partitioning the mind does it seem possible to explain how a thought or impulse can cause another to which it bears no rational relation.

[...] The breakdown of reason relations defines the boundary of subdivision.

Although Feature I is quite important in Davidson's view in order to explain phenomena such as self-deception and wishful thinking, it plays no significant role in the resolution to the puzzles about belief reports examined in my dissertation. For this reason, I shall leave it out from the New Account of belief subsystems.

So, let us summarize the part of Davidson's intuitive account of subsystems, which will underpin the New Account: *belief subsystems are mental compartments separately storing contradictory beliefs, that p and that ~p, which a rational believer is not disposed to "put together" (i.e. she is not disposed to infer from them the belief that p&~p). Speaking of the mind as being partitioned into distinct subsystems is no more than saying that a metaphorical wall separates the beliefs. The divisions among the subsystems are not fixed, not permanent; and the boundaries do not separate autonomous territories, since the territories might overlap.*

Before moving to the presentation of the New Account of subsystems, I would like to say a few words about Robert Fogelin's account. In his article "Pierre, Saul, Ruth, and Bob and a Puzzle about Belief", Fogelin briefly characterizes a belief subsystem as follows:

[...] someone can believe something in certain settings or under certain conditions, but not believe it in other circumstances or in other settings. Let us say that such a person has a divided belief system – or simply, divided beliefs. A person has a divided belief system if he believes something in one subsystem that he does not believe in the other. I will say that a person's belief system is strongly divided if that person believes something in one [sub]system and disbelieves it in another. [Fogelin 1993, p. 205]

Although Fogelin's conception of subsystems is compatible with several of Davidson's examined features, it differs from the latter in one crucial respect: according to Fogelin's account, not just obviously contradictory beliefs but *any pairs of contradictory beliefs are stored in different subsystems* of a rational mind. Hence his solution to the classical puzzles of inconsistency, e.g. the 'Cicero'/'Tully' case or the 'Londres'/'London' case, does not relevantly differ from the solution to new puzzles like the colour error theorist case or the case of Martin the drunken lover (Ch. 2, Section 4.1): exactly as Martin can rationally hold at the same time the belief that he is a great lover and the belief that he is not a great lover because these beliefs are stored in distinct subsystems, similarly – for Fogelin – Pierre is allowed to rationally believe that Londres (i.e. London) is pretty and that London is not pretty because he believes these two contradictory propositions from different subsystems.

[...] we are dealing with divided believers like Pierre and Martin. [Ibid., p. 206]

[...] Martin would become aware that his beliefs are divided; Pierre need not become aware of this. [Ibid., p. 209]

It can be argued *contra* Fogelin's view that his hypothesis that Pierre's contradictory beliefs about London are stored in *distinct* subsystems is not justified. Its justification does not come, in particular, from Feature B (used by Davidson as a criterion for determining whether two beliefs are stored in distinct subsystems). In fact, whereas (coherently with Feature B) Martin's contradictory beliefs that he is a great lover and that he is not a great lover are stored in distinct subsystems due to Martin's refusal to infer from them the belief that he is a great lover and he is not a great lover, Pierre is disposed to infer from his beliefs that Londres is pretty and that London is not pretty the belief that Londres is pretty and London is not pretty. Nor, following Barcan Marcus [1983, 1990], can Fogelin plausibly justify Pierre's having two contradictory beliefs in distinct subsystems by denying that Pierre believes the conjunction that Londres is pretty and London is not pretty: given Pierre's sincere disposition to assert "Londres is pretty and London is not pretty", the conclusion that he believes the abovementioned conjunction follows using Positive Disquotaton (p. 166), a principle that in Chapter 1, pp. 12-14, has been defended with compelling arguments.

So, *contra* Fogelin and in accordance with Davidson, it seems to me correct to maintain that *only* subjects holding a pair of *obviously* contradictory beliefs (like Martin the drunken lover but *not* like Pierre in the 'Londres'/'London' case) are divided believers (i.e. subjects whose belief system is divided into subsystems).

### 1.3 Belief subsystems <sup>8</sup>

Davidson's examined Features A, B, E-H (pp. 168-171) underpin the *New Account of belief subsystems* which I shall present in this section. As a first step, I shall introduce the notion of a belief system, of which subsystems are subsets.

*Belief system:*

Definition 1: The belief system of a subject *S* at a given temporal instant *t* is the collection of all *token beliefs* held by *S* at *t*.

In Section 3.3 of this chapter, I shall defend the thesis that, within a Russellian framework, token beliefs must be identified by their Russellian content. Taking for granted this thesis, Definition 1 becomes equivalent to the following:

Definition 1\*: The belief system of a subject *S* at a given temporal instant *t* is the set of all *Russellian propositions* believed by *S* at *t*.

There are, of course, deep ontological and epistemological differences between the belief system as conceived in Definition 1 and Definition 1\*. Such differences, nevertheless, are not relevant for what I shall argue in this chapter. For reasons of mere expositive convenience, in the continuation of this chapter I shall preferably use the conception of belief system propounded in Definition 1\*.

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<sup>8</sup> I am grateful to Hidenori Kurokawa for his comments on Section 1.3.

*Reformulation of the truth-conditions of belief reports:*

Once the notion of a belief system is introduced, the truth-conditions of belief reports (p. 166) can be reformulated as follows: the report ‘*S* believes that *p*’ is true if and only if *S*’s belief system stores the Russellian proposition *p* (or, equivalently, it stores the token belief that *p*). In particular, under the supposition that *S* is a non-reticent speaker, *S*’s *conscious belief system* (i.e. the set of all Russellian propositions consciously believed by *S*) stores the Russellian proposition *p* (or, equivalently, it stores the token belief that *p*) if and only if there is at least one sentence, expressing such a proposition, that *S* has the disposition to sincerely, on reflection and competently assert (or accept or assent to).

*Definition of subsystems:*

Subsystems are non-empty subsets of the belief system of *S* at *t* resulting from the subdivision/compartimentalization of the belief system on the basis of four conditions/rules I am now going to introduce and explain. Here is the *first* condition:

- (i) Every proposition of the belief system is stored in at least one subsystem.

The *second* condition stems from a generalization of Davidson’s crucial Feature B (p. 169). According to this feature, *if a subject, who believes the propositions  $p$  and  $\sim p$ , is not disposed to conjoin these propositions and to believe their conjunction, then  $p$  and  $\sim p$  are stored in distinct subsystems*. Let us generalize Feature B, concerning pairs of *contradictory* propositions, to *any pair* of different propositions believed by the subject. Also, let us introduce a new term, *B-inference*: consider a subject who believes the propositions  $p_1, p_2, \dots, p_n$ ; we will say that this subject *B-infers* the proposition *c* from  $p_1, p_2, \dots, p_n$  if she infers *c* from  $p_1, p_2, \dots, p_n$  and believes *c*. In particular, we will say that a subject who believes the propositions *p* and *q* *B-conjoins* them if she B-infers the proposition  $p \& q$  from *p* and *q* (i.e. she conjoins *p* and *q* and believes their conjunction).

A note about the notion of B-conjunction: in Section 1.5 we shall face problematic cases of subjects who seem both disposed to B-conjoin two given propositions from a certain “point of view” and not disposed to B-conjoin the same propositions from another “point of view”. In the present section, however, cases involving different “points of view” will be left out of consideration and it will be implicitly assumed in all definitions, properties and examples here considered that *the subject is either disposed or not disposed to B-conjoin a given pair of propositions (and in no case will she do both things simultaneously)*.

The abovementioned generalization of Davidson’s Feature B plus the notion of *B-conjunction* yield the *second* condition satisfied by subsystems:

- (ii) For every pair of propositions *p* and *q* with  $p \neq q$  believed by a given subject *S*, if there is a subsystem of *S* which stores both *p* and *q*, then *S* is disposed to B-conjoin *p* and *q*. (Consequently, by contraposition, if *S*

is not disposed to B-conjoin  $p$  and  $q$ , then there is no subsystem of  $S$  storing both  $p$  and  $q$ .)<sup>9</sup>

Let us see an example of Condition (ii). Consider a rational subject  $S$  who believes two contradictory propositions,  $p$  and  $\sim p$ , without being disposed to B-conjoin them. Incidentally, this is the case e.g. of Mr. Justice Bennett, who as a judge believes that Jack should be condemned and as a humane person believes that Jack should not be condemned, but neither as a judge nor as a humane person does he believe the conjunction that Jack should be condemned and Jack should not be condemned; or it is the case of Rob the colour error theorist, who holds the ordinary belief that fire engines are red and the highly theoretical belief that fire engines are not red, without nevertheless holding the belief that fire engines are red and fire engines are not red. According to the contrapositive of Condition (ii), the propositions  $p$  and  $\sim p$  (that  $S$  is not disposed to B-conjoin) will *not* be stored in the same subsystem. In particular, given Condition (i) (p. 174), they will be stored in two different subsystems, say  $\mathcal{B}_1$  and  $\mathcal{B}_2$ , as represented in Figure 1.

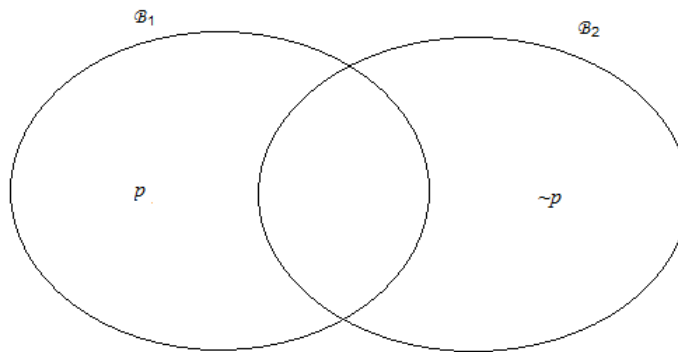


Figure 1

Of course, a huge number of subsets of the belief system satisfy Conditions (i) and (ii) (for example, all proper subsets of any subsystem satisfy them). In order to avoid a useless multiplication of subsystems, I shall introduce a *third* condition, by virtue of which all propositions the subject is disposed to B-conjoin to one another are gathered in the same subsystem.

- (iii) Given any proposition  $u$  believed by a subject  $S$  and given any subsystem  $\mathcal{B}$  of  $S$ , if  $S$  is disposed to B-conjoin  $u$  with *every* proposition of  $\mathcal{B}$  different from  $u$ , then  $u$  is also stored in  $\mathcal{B}$ .

(It will be shown later, using Condition (iii), that no proper subset of a subsystem is in turn a subsystem.) As an example of Condition (iii), reconsider the subsystems depicted in Figure 1 and suppose that the subject,  $S$ , is disposed to B-conjoin a given proposition,  $q$ , with  $p$  (and with any other proposition stored  $\mathcal{B}_1$ ). According to

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<sup>9</sup> The requirement that  $p \neq q$  is indispensable in order to avoid a clash between Conditions (i) and (ii). In fact, consider a believer of proposition  $p$  who, for some bizarre reason, is not disposed to B-conjoin  $p$  with itself. It would follow from this, using the contrapositive of Condition (ii) *without the requirement*  $p \neq q$ , that  $p$  is stored in *no* subsystem, in contrast with Condition (i).

Condition (iii),  $q$  will then be stored in  $\mathcal{B}_1$ . In particular, supposing that  $S$  is not disposed to B-conjoin  $q$  with  $\sim p$  (the latter being stored in  $\mathcal{B}_2$ ), proposition  $q$  – according to the contrapositive of Condition (ii) (p. 174) – will exactly be stored in  $\mathcal{B}_1 - (\mathcal{B}_1 \cap \mathcal{B}_2)$ , as depicted in Figure 2.

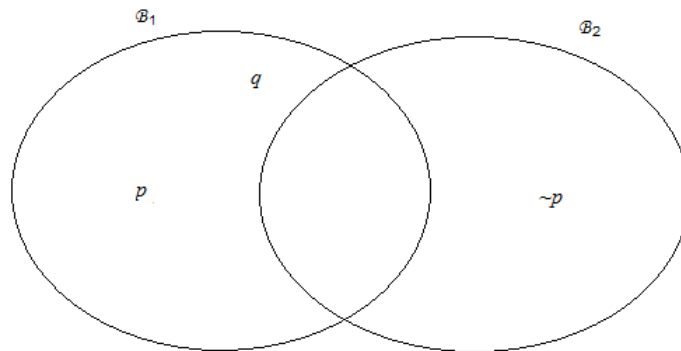


Figure 2

So far we have examined three conditions satisfied by subsystems: Condition (i) states that every proposition believed by a subject is stored in a subsystem; Condition (ii) forbids storing in the same subsystem propositions that the subject is not disposed to B-conjoin; Condition (iii) allows a reduction of the number of subsystems by gathering in one and the same subsystem propositions that the subject is disposed to B-conjoin to one another. However, these conditions *do not univocally* (i.e. uniquely) determine the subdivision of the belief system into subsystems. In fact, reconsider the belief system of the subject  $S$  (partially) depicted in Figure 2 and suppose that  $S$  is also disposed to B-conjoin a given proposition,  $r$ , with all propositions stored in  $\mathcal{B}_2$  but not with  $p$  (which is stored in  $\mathcal{B}_1$ ). Given Condition (iii) plus the contrapositive of Condition (ii),  $r$  will be stored in  $\mathcal{B}_2 - (\mathcal{B}_1 \cap \mathcal{B}_2)$ , as depicted in Figure 3.

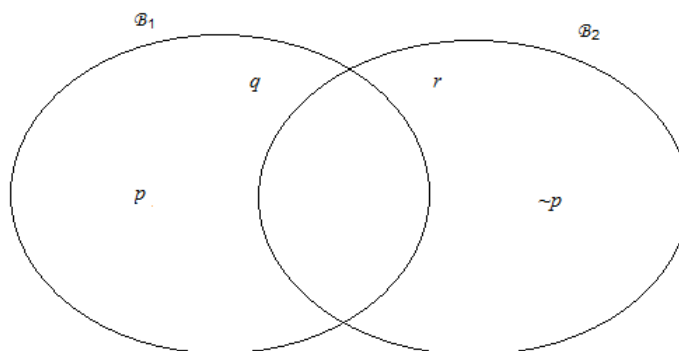


Figure 3

Additionally, suppose that  $S$  is disposed to B-conjoin  $q$  and  $r$ . Is the set containing  $q$  and  $r$  a subsystem for  $S$  or is it not? Namely, is Figure 3 or Figure 4 the correct representation of the subdivision of  $S$ 's belief system in the case under discussion?

This question cannot be answered by *only* appealing to Conditions (i)-(iii): both figures are in fact compatible with these three conditions.

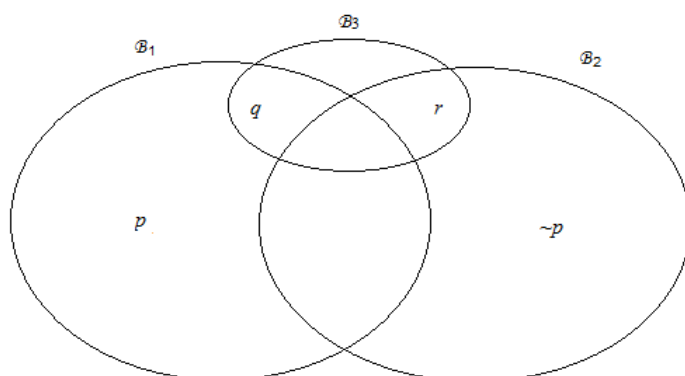


Figure 4

In order to choose between these two representations/figures, I shall supplement Conditions (i)-(iii) with Condition (iv), which is actually the *converse of Condition (ii)*.

- (iv) For every pair of propositions  $p$  and  $q$  with  $p \neq q$  believed by a subject  $S$ , if  $S$  is disposed to B-conjoin  $p$  and  $q$ , then there is at least one subsystem of  $S$  which stores both  $p$  and  $q$ . (Consequently, by contraposition, if no subsystem of  $S$  stores both  $p$  and  $q$ , then  $S$  is not disposed to B-conjoin these propositions.)

In light of Condition (iv), Figure 4 and not Figure 3 represents the correct subdivision of the belief system of the subject  $S$  (having previously supposed that  $S$  is disposed to B-conjoin  $q$  and  $r$ ).<sup>10</sup>

At this point, nevertheless, one might wonder if we still need Condition (iii), given the “strong similarity” between Conditions (iii) and (iv). I think we still need it. Consider the case of a subject,  $S$ , who is disposed to B-conjoin the following three pairs of propositions:  $p$  and  $q$ ;  $q$  and  $r$ ;  $p$  and  $r$ . Is Figure 5 or Figure 6 (or possibly something else) the correct representation of the subdivision of  $S$ 's belief system in this case? Actually, both representations are compatible with Conditions (i), (ii), (iv); therefore, these three conditions alone are not sufficient to determine a *univocal* subdivision of  $S$ 's belief system.<sup>11</sup> Instead, if we add to them Condition (iii), we easily discover that only Figure 6 provides the correct representation of  $S$ 's subdivided belief

<sup>10</sup> It would be possible to show that not even Conditions (i)-(iv) yield a *univocal* (unique) subdivision of the belief system into subsystems. Instead, such a subdivision can be achieved if Condition (iv) is replaced with the following Condition (iv\*), of which (iv) is a particular case: (iv\*) *for every plurality of (at least two distinct) propositions believed by a subject  $S$ , if  $S$  is disposed to B-conjoin each pair  $p$ ,  $q$  among these propositions, with  $p \neq q$ , then there is at least one subsystem of  $S$  which stores this plurality of propositions.* I am grateful to Fabrice Correia for having shown me this point and for having proved to me that Conditions (i)-(iii) plus (iv\*) yield a univocal subdivision of the belief system into subsystems. Since, however, Condition (iv) suffices for my present purposes, in the continuation of this chapter I shall only use this simpler condition instead of Condition (iv\*).

<sup>11</sup> It would be possible to show that not even Conditions (i), (ii), (iv\*) (see footnote 10) alone are sufficient to determine a *univocal* subdivision of  $S$ 's belief system.

system. Notice also that the choice of Figure 6 allows the elimination of the three “useless” subsystems represented in Figure 5.

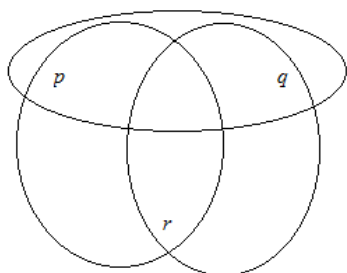


Figure 5

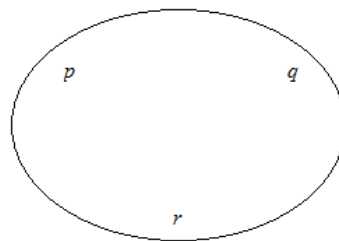


Figure 6

So, the subdivision of the belief system into subsystems complies with Conditions (i)-(iv). I shall finally use Conditions (ii) and (iii) to define, here below, the notion of belief subsystem.

**Definition 2:** A belief subsystem  $\mathcal{B}$  of a subject  $S$  at a time  $t$  is a non-empty subset of the belief system of  $S$  at  $t$  such that: (ii) for every pair of propositions  $p$  and  $q$  belonging to  $\mathcal{B}$  with  $p \neq q$ ,  $S$  is disposed to B-conjoin  $p$  and  $q$ ; (iii) given any proposition  $u$  of the belief system of  $S$ , if  $S$  is disposed to B-conjoin  $u$  with every proposition of  $\mathcal{B}$  different from  $u$ , then  $u$  is also in  $\mathcal{B}$ .

The notion of a subsystem is “artificial”. Perhaps, the following geometric visualization of subsystems within three-dimensional space might help the reader to better understand this notion. We could think of subsystems as *spheres having a given diameter  $d$*  and we might think of each pair of propositions that the subject is disposed to B-conjoin as *pairs of points in the three-dimensional space having a distance equal to or less than  $d$* . Coherently with Condition (ii) (according to which if the subject is not disposed to B-conjoin two propositions, then these propositions are in distinct subsystems), if two points have a distance greater than  $d$ , they do not belong to the same sphere (the spheres considered have in fact diameter of  $d$ ). Coherently with Condition (iii) (according to which every proposition stored in a subsystem is such that the subject is disposed to B-conjoin it with all the other propositions of the subsystem), any point  $P_i$  of a sphere is distant from every other point of the sphere by  $d$  or less than  $d$ .

*Some properties of subsystems:*

**Property 1:** Belief subsystems can have non-empty intersections.<sup>12</sup>

The correctness of this property can easily be proved. Reconsider the belief system of the subject  $S$  (partially) depicted in Figure 1 (p. 175). Suppose that  $S$  is disposed to B-conjoin a given proposition,  $q$ , with  $p$ , with  $\sim p$  (and with any other propositions stored either in  $\mathcal{B}_1$  or in  $\mathcal{B}_2$ ). According to Condition (iii) (p. 175),  $q$  will then be stored both

<sup>12</sup> This property is in accordance with Davidson’s Feature G, p. 171.

in  $\mathcal{B}_1$  and  $\mathcal{B}_2$ , i.e. it will be stored in  $\mathcal{B}_1 \cap \mathcal{B}_2$ , as represented in Figure 7. Hence  $\mathcal{B}_1 \cap \mathcal{B}_2$  is non-empty, QED.<sup>13</sup>

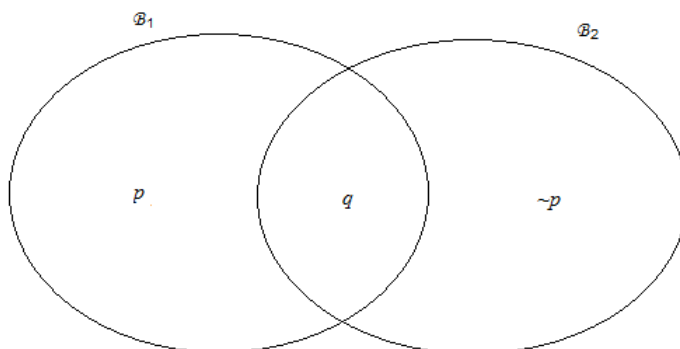


Figure 7

Property 2: No proper subset of a subsystem is in turn a subsystem.

For let  $\mathcal{B}$  be any subsystem of a subject  $S$  and let  $\mathcal{B}^*$  be any proper subset of  $\mathcal{B}$ . Suppose *ab absurdo* that  $\mathcal{B}^*$  is a subsystem. Since by supposition  $\mathcal{B}$  is a subsystem, according to Condition (ii) (p. 174),  $S$  is disposed to B-conjoin all pairs of propositions stored in  $\mathcal{B}$ . Hence,  $\mathcal{B}^*$  being a subset of  $\mathcal{B}$ ,  $S$  will be disposed to B-conjoin any proposition stored in  $\mathcal{B}$  with every proposition stored in  $\mathcal{B}^*$ . It follows from this, by repeatedly applying Condition (iii) (p. 175), that any proposition stored in  $\mathcal{B}$  will also be stored in  $\mathcal{B}^*$ , to the effect that  $\mathcal{B}^* = \mathcal{B}$ . But this result is *absurd*, given the initial assumption that  $\mathcal{B}^*$  is a *proper* subset of  $\mathcal{B}$ . Hence  $\mathcal{B}^*$  is not a subsystem, QED.

Property 3: The intersection of different subsystems is never a subsystem.

Property 3 trivially follows from Property 2, taking into account that any intersection of *different* subsystems is a proper subset of them.

Property 4: The union of different subsystems is never a subsystem.

In fact, if *ab absurdo* the union of different subsystems, say  $\mathcal{B}_1$  and  $\mathcal{B}_2$ , was a subsystem, say  $\mathcal{B}$ , then  $\mathcal{B}_1$  and  $\mathcal{B}_2$  would be proper subsets of  $\mathcal{B}$ , *contra* Property 2. Thus the union of  $\mathcal{B}_1$  and  $\mathcal{B}_2$  is not a subsystem, QED.

I would like to add a further property to those stated above.

<sup>13</sup> In order to provide an example of a proposition,  $q$ , that the subject is disposed to B-conjoin with *all* elements of two different subsystems, reconsider the judge case, in which Mr. Justice Bennett believes the propositions *that Jack should be condemned* and *that Jack should not be condemned* from two different subsystems (because he is not disposed to B-conjoin them). We might suppose that there is a (“neutral”, “independent”) proposition, e.g. *that Jack is a man* or *that show is white*, which Mr. Bennett is disposed to B-conjoin with *that Jack should be condemned*, with *that Jack should not be condemned* and with any other proposition stored in the two abovementioned subsystems.

Property 5: Subsystems of ideal (viz. omniscient) subjects are closed under conjunction. Subsystems of real rational subjects are generally (but not always) closed under conjunction.<sup>14</sup>

(A subsystem  $\mathcal{B}$  is *closed under conjunction* if for every proposition  $p$  and  $q$ , if  $p, q \in \mathcal{B}$  then  $p \& q \in \mathcal{B}$ .) As an example of a real subject whose subsystems are not closed under conjunction, let us consider a person who is disposed to B-conjoin two long and complex propositions,  $p$  and  $q$ , but she is then not disposed to B-conjoin either  $p$  or  $q$  with  $p \& q$ , because  $p \& (p \& q)$  and  $q \& (p \& q)$  are too long and complex to be understood or considered, and therefore believed, by her. Using Conditions (iv) (p. 177) and (ii) (p. 174) respectively, we will obtain that  $p$  and  $q$  are stored in the same subsystem, which nevertheless does not also store  $p \& q$ .

So, exceptionally, subsystems of real subjects are not closed under conjunction. However, generally, they are *closed under conjunction*: a rational subject who is disposed to B-conjoin  $p$  and  $q$  (therefore coming to believe  $p \& q$ ) is also, at least tacitly, disposed to B-conjoin both  $p$  and  $q$  with their conjunction  $p \& q$ . This fact determines a *significant difference between belief systems and subsystems*: unlike the latter, the former are generally *not* closed under conjunction (e.g. the belief system represented in Figure 1 on p. 175 stores propositions  $p$  and  $\sim p$  without storing their conjunction,  $p \& \sim p$ ). In sum, whereas (in general) it is true that for every pair of propositions  $p$  and  $q$  stored in the same *subsystem*, thesis (T7) (below) holds, it is undoubtedly false that such a thesis holds for every pair of propositions  $p$  and  $q$  stored in  $S$ 's belief system.<sup>15</sup> There is instead no doubt that the converse of (T7), i.e. (T8), holds for every  $p$  and  $q$  of the belief system.

(T7)  $S$  believes that  $p$  &  $S$  believes that  $q \rightarrow S$  believes that  $p \& q$ .

(T8)  $S$  believes that  $p \& q \rightarrow S$  believes that  $p$  &  $S$  believes that  $q$ .

*Belief subsystems vs. mental files:*

Belief subsystems resemble mental files (Ch. 4, Section 4) in that both are sets/collections of “believed” pieces of information. On the other hand, a number of features differentiate these two devices – starting from the fact that the pieces of information stored in files are *mental sentences*, whereas those stored in subsystems are *Russellian propositions* (or, equivalently, *token beliefs* identified by their Russellian content). Besides this, other even more important differences distinguish subsystems from files.

A *subsystem cannot be a file*, because a file is a collection of pieces of information (viz. mental sentences) about (j) a given *object* (jj) presented in a given *way*, whereas a subsystem can store ( $\sim$ j) pieces of information (viz. propositions) about different objects or about no object at all, or ( $\sim$ jj) pieces of information about an object presented in different ways. For example, in the ‘Cicero’/‘Tully’ case, Tom maintains the ‘Cicero’-file and the ‘Tully’-file: the former stores mental sentences (j) about Cicero in which (jj) he is presented as *Cicero* (e.g. “Cicero is bald”, “Cicero accused Catiline”, etc.); the latter stores mental sentences (j) about Cicero in which (jj) he is presented as *Tully* (e.g. “Tully is not bald”, “Tully is the author of *De Fato*”, etc.). On the contrary, ( $\sim$ jj) the same subsystem of Tom stores both the (Russellian)

<sup>14</sup> This property is related to Davidson’s Feature H, p. 171.

<sup>15</sup> Other counter-examples to thesis (T7) applied to  $S$ 's belief system can be found in Ch. 2, p. 63.

propositions expressed by the sentences “Cicero is bald” and “Tully is not bald” since, coherently with Condition (iv) (p. 177), Tom is disposed to B-conjoin these sentences and therefore the proposition expressed by them. Also, ( $\sim$ j) the same subsystem can store propositions about different individuals, e.g.  $\langle$ Cicero, Baldness $\rangle$  and  $\langle$ Cesar, Having defeated Gauls $\rangle$ , or about no individual at all, e.g. the general proposition *that someone is bald* (under the supposition that the subject is disposed to B-conjoin them with all other propositions of the subsystem).

If on one hand a subsystem cannot be a file, on the other, *a file cannot be a subsystem*: Conditions (i)-(iv) are not satisfied by files. In particular, Condition (i) (p. 174) is not satisfied, because a mental sentence about no object (e.g. “Someone is bald”) presumably belongs to no file. Condition (ii) (p. 174) is not satisfied as well: e.g. in the judge case, the mental sentences “Jack should be condemned” and “Jack should not be condemned” are stored in the *same* file of Mr. Bennett, since these sentences are about the same individual (Jack) and present him in the same way (as *Jack*); on the other hand, Mr. Bennett is *not* disposed to B-conjoin these sentences. Finally, although in the ‘Cicero’/‘Tully’ case Tom could have the disposition to B-conjoin the mental sentences “Cicero is bald” and “Tully is not bald”, *contra* Conditions (iii) (p. 175) and (iv) (p. 177) *no* file of Tom stores both “Cicero is bald” and “Tully is not bald”.

#### 1.4 Cognitive coordination

Cognitive coordination is a device which is different from and independent of belief subsystems and which deals with the ability (or inability) of a subject to recognize two occurrences of an object within Russellian propositions as occurrences of the *same* object and to “treat” them as such. I can briefly anticipate the main differences between these two devices. First, subsystems are sets of believed Russellian propositions, whereas coordination is a relation among occurrences of objects within these propositions. Second, the crucial feature of subsystems is that: if a subject, *S*, believes a pair of propositions, say  $\langle a, \text{Being } F \rangle$  and  $\langle a, \text{Being } G \rangle$ , from different subsystems (and no subsystem exists comprising both propositions), then *S* is not disposed to B-infer from such propositions their conjunction,  $\langle \langle a, \text{Being } F \rangle, \text{CONJ}, \langle a, \text{Being } G \rangle \rangle$ . The crucial feature of coordination lies, instead, in the fact that: if *S* believes the abovementioned conjunction,  $\langle \langle a, \text{Being } F \rangle, \text{CONJ}, \langle a, \text{Being } G \rangle \rangle$ , and she negatively coordinates the two occurrences of *a* within it, then she is not disposed to B-infer from that conjunction the proposition  $\langle a, \text{Being } F \text{ and } G \rangle$ .

This section will propose a definition of cognitive coordination, will examine properties of it and will compare cognitive coordination with Fine’s coordination.

*Definition of cognitive coordination:*

Cognitive coordination is a purely psychological (viz. non-semantic), two-place relation which holds between occurrences of an object contained in the same or different Russellian propositions believed by a given subject. We can distinguish between positive and negative (i.e. non-positive) coordination. Let us start by illustrating negative coordination.

Two kinds of cases of *negative coordination* are particularly important. One includes cases in which the subject negatively coordinates two occurrences of an object, because she *mistakes them for occurrences of different objects*. For example, in the ‘Cicero’/‘Tully’ case, Tom negatively coordinates the two occurrences of

Cicero within the propositions (6p) and (7p) that he believes (in other words: these two occurrences are negatively coordinated for Tom) because Tom mistakes them for occurrences of different people, respectively *Cicero* and *Tully*.<sup>16</sup>

- (6p) <Cicero, Baldness>
- (7p) <<Cicero, Baldness>, NEG>

Similarly, Susan negatively coordinates the two occurrences of Bruce in proposition (8p), believed by her, because she mistakes them for occurrences of two distinct individuals.

- (8p) <Bruce, ≠, Bruce>

A second important kind of cases of negative coordination includes those in which a subject negatively coordinates two occurrences of an object, because she *treats them as occurrences of different objects*, despite knowing that they are in fact occurrences of the same object. For example, in the ‘Superman’/‘Clark Kent’ case, Emily, who knows that *Superman is the journalist Clark Kent*, “sets aside” (she momentarily does not consider) this piece of knowledge and treats Clark in (9p) and Clark in (10p) as two different people. In doing so, she negatively coordinates his two occurrences in (9p) and (10p).

- (9p) <Clark, Flying>
- (10p) <<Clark, Flying>, NEG>

Analogously, by hearing Ralph affirm “I believe that George Eliot was a man, but I do not believe that Mary Ann Evans was a man”, Jane comes to believe (11p) and (12p). Although Jane, unlike Ralph, knows that *George Eliot is Mary Ann Evans*, she negatively coordinates the two occurrences of Eliot in (11p) and (12p): she in fact treats Eliot as two different people, because she wants to report faithfully Ralph’s beliefs about Eliot, and Ralph in fact mistakes Eliot for two different people.

- (11p) <Ralph, B, <Eliot, Being a man>>
- (12p) <<Ralph, B, <Eliot, Being a man>>, NEG>

Having examined different examples of negative coordination, let us consider now a case of *positive* (i.e. non-negative) *coordination*. Tom, who believes propositions (6p) and (13p), takes Cicero in (6p) to be the same individual as Cicero in (13p) and treats “them” as the same individual. Thus he positively coordinates the two occurrences of Cicero in (6p) and (13p).

- (6p) <Cicero, Baldness>
- (13p) <Cicero, Being called ‘Cicero’>

From the cases considered so far, the following characterisation of coordination can be drawn:

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<sup>16</sup> Possible doubts about the notion of occurrence of a real individual have (hopefully) been dispelled in Ch. 5, p. 132, n. 14.

Definition 3: Let  $o_1$  and  $o_2$  be occurrences of an object within the same or different Russellian propositions stored in the belief system of a given subject,  $S$ . We will say that  $S$  *positively* (i.e. *non-negatively*) *coordinates*  $o_1$  and  $o_2$  if and only if  $S$  (j) takes and (jj) treats them as occurrences of the same object. (So, by contraposition, if e.g. ( $\sim$ j)  $S$  mistakes  $o_1$  and  $o_2$  for occurrences of different objects or ( $\sim$ jj) she treats them as such then  $S$  negatively coordinates them.)

A note before proceeding: we will tackle in Section 1.5 cases where a subject simultaneously coordinates two occurrences of an object positively by considering them for a given “point of view” and negatively (i.e. non-positively) by considering them from another “point of view”. In the present section, however, I shall leave out of consideration cases involving different “points of view” and I shall implicitly assume in all definitions, properties and examples considered that *the subject coordinates either positively or negatively pairs of occurrences of a given object (and in no case will she do both things at the same time).*

*Properties of cognitive coordination:*

Let us introduce the notion of B-gathering. We will say that a subject,  $S$ , *B-gathers* two occurrences of an object  $a$  within propositions that she believes, e.g.  $\langle a, F \rangle$  and  $\langle a, G \rangle$ , if from these propositions  $S$  *B-infers propositions*  $\langle a, F \& G \rangle$  and  $\langle a, G \& F \rangle$  – i.e. she infers them from  $\langle a, F \rangle$  and  $\langle a, G \rangle$  and she also believes them. The following property states an important link between cognitive coordination and B-gathering.

Property 6: Let  $o_1$  and  $o_2$  be occurrences of an object within the same or different Russellian propositions stored in the belief system of a given subject,  $S$ .  $S$  *positively* (i.e. *non-negatively*) *coordinates*  $o_1$  and  $o_2$  *if* she B-gathers them. (So, by contraposition, if  $S$  negatively coordinates them then she does not B-gather them.)

For example, reconsider the case of Tom, who believes propositions (6p) and (13p). Tom is disposed to B-gather the occurrences of Cicero in these propositions: he is in fact disposed to infer (14p) and (15p) from (6p) and (13p) and to believe the former pair of propositions. Tom’s disposition to B-gather the occurrences of Cicero in (6p) and (13p) is evidence of his positively coordinating these occurrences, i.e. of his taking and treating them as occurrences of the same person.

- (6p)  $\langle \text{Cicero, Baldness} \rangle$
- (13p)  $\langle \text{Cicero, Being called ‘Cicero’} \rangle$
- (14p)  $\langle \text{Cicero, Being called ‘Cicero’ and being bald} \rangle$
- (15p)  $\langle \text{Cicero, Being bald and being called ‘Cicero’} \rangle$

Reconsider the ‘Bruce’ case, where Susan, mistaking Bruce for two individuals, comes to believe proposition (8p) by negatively coordinating the two occurrences of Bruce in such a proposition. As a result, Susan is *not* disposed to B-gather these occurrences: since she mistakes them for occurrences of different individuals, she is not disposed to B-infer proposition (16p) from (8p).

- (8p) <Bruce, ≠, Bruce>  
 (16p) <Bruce, Being not identical to himself>

A further example: in the ‘Superman’/‘Clark Kent’ case, Emily negatively coordinates the two occurrences of Clark in (9p) and (10p), because she treats them as occurrences of different people, *Superman* and *the journalist Clark Kent* (despite knowing they are occurrences of the same person). Hence she does not B-gather these occurrences, namely she does not B-infer (17p) from (9p) and (10p).

- (9p) <Clark, Flying>  
 (10p) <<Clark, Flying>, NEG>  
 (17p) <Clark, Flying and not flying>

It is worth noticing that *the converse of Property 6 is false*. In fact, reconsider the case of Mr. Justice Bennett, who as a judge believes that Jack should be condemned and as a humane person believes that Jack should not be condemned, but neither as a judge nor as a humane person does he believe the conjunction of these two contradictory things. Although Mr. Bennett takes and treats the two occurrences of Jack in (18p) and (19p) as occurrences of the same person and so positively coordinates them, he *does not B-gather them*: since (18p) and (19p) are stored in two different subsystems (and no subsystem exists comprising both propositions), Mr. Bennett is not disposed to B-conjoin them (coherently with the contrapositive of Condition (iv), p. 177) and therefore he does not come to believe their conjunction, (20p); *a fortiori* he does not come to believe proposition (21p), i.e. he does not B-gather the occurrences of Jack in (18p) and (19p), nor in (20p).

- (18p) <Jack, Having to be condemned>  
 (19p) <<Jack, Having to be condemned>, NEG>  
 (20p) <<Jack, Having to be condemned>, CONJ, <<Jack, Having to be condemned>, NEG>>  
 (21p) <Jack, Having to be condemned and not having to be condemned>

If on the one hand the judge case falsifies the converse of Property 6, on the other it is in accordance with the following Property 7. This property crucially confines the correctness of the converse of Property 6 to cases where the propositions containing the coordinated occurrences are stored in the *same belief subsystem* of the subject.

Property 7: Let  $o_1$  and  $o_2$  be occurrences of an object within the same or different Russellian propositions stored in the same belief *subsystem* of a given subject,  $S$ .  $S$  positively (i.e. non-negatively) coordinates  $o_1$  and  $o_2$  if and only if she B-gathers them.

Coherently with Property 7, in the judge case, Mr. Bennett positively coordinates the two occurrences of Jack in propositions (18p) and (19p) (since he takes and treats them as occurrences of the same person) even though he does not B-gather them because he does not B-conjoin (18p) and (19p), these propositions being not stored in the same subsystem.

*Cognitive coordination vs. Fine’s coordination:*

The notion of cognitive coordination (presented here) differs in several important respects from Fine's coordination (illustrated in Chapter 5). First, cognitive coordination, unlike Fine's, is a *non-semantic* relation: it enters into neither the semantic content of statements nor the truth-conditions of belief reports. Thus there is no room in the New Account to distinguish (like in Fine's relational semantics) between intrinsic and extrinsic content of an expression, or among different readings of belief reports.

Second, whereas Fine's coordination is a relation holding primarily among linguistic expressions and derivatively among the objects to which these expressions semantically correspond, cognitive coordination is a *non-linguistic* relation: it just holds among occurrences of individuals and properties/relations within believed Russellian propositions. Since cognitive coordination is "insensitive" to the linguistic expressions chosen by the believer to report his own beliefs, the principle of Substitution (which fails in relational semantics) is met in the New Account.

Instead of being a semantic and expression-"sensitive" relation, cognitive coordination is a *psychological* relation: it holds among occurrences of objects within propositions believed by a given subject. It is therefore a *subjective* relation. In this connection, reconsider Characterisation 1 (p. 127) of Fine's coordination. According to it, the fact that e.g. Tom (a competent speaker) raises the question of whether 'Cicero' and 'Tully' in a piece of discourse co-refer entails that these names (and the corresponding occurrences of Cicero in the sequence of propositions expressed by this piece of discourse) are negatively coordinated not only for Tom but for everybody. Instead, in the New Account, Tom's raising such a question simply shows that the two occurrences of Cicero within propositions that he believes are negatively coordinated for him but not necessarily for everybody.

Let us proceed now to a generalization of the notion of cognitive coordination to cases in which a subject simultaneously coordinates two occurrences of an object both positively (from a given "point of view") and negatively (from another "point of view"). An analogous generalization will also be proposed for belief subsystems. I shall arrive at these generalizations by solving the problems illustrated in the next Section 1.5.

## 1.5 Problems about cognitive coordination and belief subsystems

*Occurrences both positively and negatively coordinated:*

Problem 1: Suppose that Tom, who does not know that *Cicero* is *Tully*, asserts sincerely, on reflection and competently "Cicero admires [the same] Cicero" and "Cicero admires Tully". Thus his belief system stores proposition (22p) (p. 186). Does Tom positively or negatively (i.e. non-positively) coordinate the two occurrences of Cicero in (22p)? On the one hand (viz. in the light of his assertion "Cicero admires [the same] Cicero"), he seems to take and treat them as occurrences of the same person and, consequently, he seems disposed to B-infer proposition <Cicero, Self-Admiration> from (22p); on the other hand (viz. by asserting "Cicero admires Tully"), he seems to take them as

occurrences of two different people, and accordingly he should not be disposed to make such a B-inference.<sup>17</sup>

(22p) <Cicero, Admiration, Cicero>

Using modes of presentation, one might suggest the following solution to Problem 1: thinking of both occurrences of Cicero in proposition (22p) as *Cicero*, Tom positively coordinates these occurrences; thinking of them respectively as *Cicero* and *Tully*, he negatively coordinates them. Therefore, Tom both positively and negatively coordinates the occurrences in question according to how they are presented, viz. according to which modes of presentation he “attaches” to them.

Unfortunately, this solution to Problem 1 in terms of modes of presentation does not successfully apply to the following version of the same problem.

Problem 1\*: Suppose that Susan, who mistakes Bruce for two indiscernible individuals both called ‘Bruce’ and both located in a perfectly symmetric universe, asserts sincerely, on reflection and competently sentence “Bruce admires Bruce”, once with the intention of referring to the same Bruce (any one of the two imaginary Bruces) and the other time intending to refer to two distinct Bruces (but *de facto* referring to the same). Given Susan’s referential intentions, in the proposition (23p) believed by her are the two occurrences of Bruce positively or negatively coordinated for her?

(23p) <Bruce, Admiration, Bruce>

Resorting to modes of presentation does not help us to solve Problem 1\*: since Susan mistakes Bruce for two *indiscernible* individuals, two modes of presentation of Bruce are not available in this case; consequently, two different pairs of modes of presentation of Bruce do not exist such that Susan positively coordinates his two occurrences in (23p) under one pair of modes of presentation while she negatively coordinates them under the other pair.

It is important to observe that Problem 1\* poses a difficulty not just for the New Account but for all (Russellian or non-Russellian) accounts of belief reports, with the only exception being Fine’s (because of the involvement of the notion of coordinated proposition). All other accounts do not seem to have the resources to explain how Susan can be both disposed and not disposed to B-infer the proposition *that Bruce admires himself* from the proposition *that Bruce admires Bruce*.

*Non-reflexivity of cognitive coordination:*

Problem 2: Tom has the disposition to assert sincerely both “Cicero is an orator” and “Tully is an orator”, not realizing that *Cicero* is *Tully*. Hence his belief system stores proposition (24p), where the only occurrence of Cicero in (24p) is mistaken by Tom for two occurrences of two people, *Cicero* and

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<sup>17</sup> Since Tom is disposed to sincerely assert “Cicero admires himself” (given his sincere disposition to assert “Cicero admires [the same] Cicero”), there is actually no doubt that he believes the proposition <Cicero, Self-Admiration>, taking for granted the truth-conditions (\*) of belief reports (p. 166). There is difficulty, nevertheless, in explaining away our impression that Tom does not also have the inclination to B-infer the proposition <Cicero, Self-Admiration> from (22p), in the light of his sincere assertion of “Cicero admires Tully” and his failure to realize that *Cicero* is *Tully*.

*Tully*. Should we conclude from this that the occurrence in (24p) is not positively coordinated with itself?

(24p) <Cicero, Being an orator>

*Non-transitivity of cognitive coordination:*

Problem 3: Tom, who has the disposition to assert sincerely “Cicero is an orator” and “Tully is an orator”, positively coordinates the occurrence of Cicero in (24p) both with his occurrence in (13p) and with his occurrence in (25p): he takes and treats the occurrences of Cicero in (13p), (24p) as occurrences of the same individual and he does the same with the occurrences of Cicero in (24p), (25p). But, then, how can he fail to realize that the occurrences of Cicero in (13p), (25p) are occurrences of the same individual, with the result of not positively coordinating them?

(13p) <Cicero, Being called ‘Cicero’>

(24p) <Cicero, Being an orator>

(25p) <Cicero, Being called ‘Tully’>

Remember that, as I argued in Ch. 5, pp. 134-136, Problems 2 and 3 affect not only cognitive coordination but also Fine’s notion of coordination. Having examined different problems about cognitive coordination, let us now examine an analogous problem concerning belief subsystems.

*Propositions both B-conjoined and not B-conjoined:*

Problem 4: Reconsider the case of Mr. Bennett, who on the basis of judicial considerations has the disposition to assert sincerely “Jack should be condemned”, and on the basis of humane considerations has the disposition to assert sincerely “Jack should not be condemned”, but on the basis of neither consideration does he have the disposition to assert sincerely the conjunction of these sentences. Therefore, Mr. Bennett does not seem disposed to B-conjoin the propositions (18p) and (19p) expressed by the aforesaid sentences. On the other hand, suppose that by mistaking Jack for two people, *Jack* and *Joseph*, Mr. Bennett acquires the disposition to assert sincerely the sentence “Jack should be condemned but Joseph should not be condemned”, which expresses proposition (20p), i.e. the conjunction of (18p) and (19p). If so, is Mr. Bennett disposed or not disposed to B-conjoin (18p) and (19p)? And, then, (given conditions (ii), p. 174 and (iv), p. 177) are these propositions stored in the same or only in different subsystems?

(18p) <Jack, Having to be condemned>

(19p) <<Jack, Having to be condemned>, NEG>

(20p) <<Jack, Having to be condemned>, CONJ, <<Jack, Having to be condemned>, NEG>>

One might suggest solving Problem 4 using *modes of presentation*: Mr. Bennett is disposed to B-conjoin propositions (18p) and (19p) thinking of them under the modes of presentation corresponding to “Jack should be condemned” and “Joseph

should not be condemned”, whereas he is not disposed to B-conjoin these propositions thinking of them under the modes of presentation corresponding to “Jack should be condemned” and “Jack should not be condemned”.

Unfortunately, this proposal in terms of modes of presentation does not seem to work with the following version of Problem 4.

Problem 4\*: On the basis of judicial considerations Mr. Bennett has the disposition to assert sincerely “Jack should be condemned”; on the basis of humane considerations he has the disposition to assert sincerely “Jack should not be condemned”; but on the basis of neither consideration does he have the disposition to assert sincerely the conjunction of these sentences. Therefore, Mr. Bennett does not seem disposed to B-conjoin the propositions (18p) and (19p). On the other hand, suppose that, by mistaking Jack for two *indiscernible* people both called ‘Jack’, Mr. Bennett acquires the disposition to assert sincerely “Jack should be condemned but [the other] Jack should not be condemned”, which expresses proposition (20p), i.e. the conjunction of (18p) and (19p). If so, is Mr. Bennett disposed or not disposed to B-conjoin (18p) and (19p)? And, then, are these propositions stored in the same or only in different subsystems?

Resorting to modes of presentation is useless to solve Problem 4\*: since Mr. Bennett mistakes Jack for two *indiscernible* people, two different pairs of modes of presentation do not exist such that Mr. Bennett is disposed to B-conjoin propositions (18p) and (19p) under one pair of modes of presentation while he is not disposed to B-conjoin them under the other pair. Importantly, it seems that no known account of belief reports (except maybe for Fine’s account, because of the involvement of the notion of coordinated sequence of propositions) has the resources to explain how Mr. Bennett can, in this case, be both disposed and not disposed to B-conjoin the propositions *that Jack should be condemned* and *that Jack should not be condemned*.

Whereas modes of presentation are incapable of solving Problem 4\*, a solution to this and the other illustrated problems can be achieved by appealing to a new psychological device: *networks*. As we will see, the notion of network resembles that of mode of presentation; in a sense, it “embodies” the latter. However, it is more “powerful”, in that it is able to solve Problems 1\* and 4\*.

## 1.6 Networks

Definition 4: A *network* for a given subject *S* is the set of *all* occurrences of an object, contained in the propositions believed by *S* at a given time, which *S* takes and treats as occurrences of the *same* object.<sup>18</sup>

For example, consider this list of propositions believed by Tom in the ‘Cicero’/‘Tully’ case:

<Cicero, Being called ‘Cicero’>  
<Cicero, Baldness>  
<Cicero, Being an orator>

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<sup>18</sup> In principle, we could also include in a network occurrences of *different* objects that the subject takes and treats as occurrences of the same object. However, in order to avoid useless complications, I shall only consider networks which include occurrences of one object only, as stated in Definition 4.

<Cicero, Admiration, Cicero>  
 <<Cicero, Being an orator>, CONJ, <Cicero, Baldness>  
 Etc.

Suppose that Tom takes and treats all occurrences of Cicero within these propositions as occurrences of the same individual, *Cicero*. Suppose also that no other proposition believed by Tom contains occurrences of Cicero that Tom takes and treats as occurrences of *Cicero*. If so, the set of abovementioned occurrences forms a network that we shall call *CICERO*. We may graphically represent the network *CICERO* as in Figure 8, where every pair of occurrences belonging to the network is linked with a thread.<sup>19</sup>

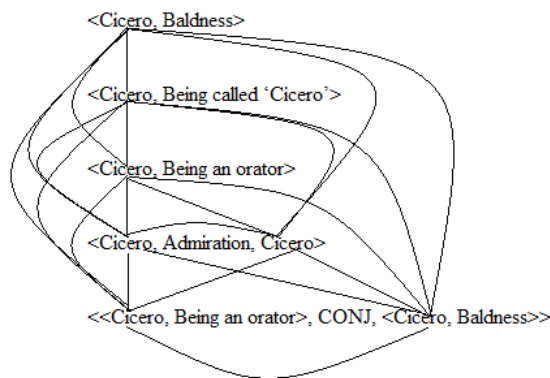


Figure 8

On the other hand, consider the occurrences of Cicero within the propositions

<Cicero, Being called 'Tully'>  
 <<Cicero, Baldness>, NEG>  
 <Cicero, Being an orator>  
 <Cicero, Admiration, Cicero>  
 Etc.

Suppose that Tom, who fails to realize that *Cicero* is *Tully*, takes and treats these occurrences as occurrences of *Tully*. If no other occurrence of Cicero, besides those contained in the propositions listed above, is taken and treated by Tom as an occurrence of *Tully*, then the set of all abovementioned occurrences forms a network different from *CICERO*, which we will call *TULLY*. The network *TULLY* is graphically represented in Figure 9 (p. 190).

<sup>19</sup> The representation of network *CICERO* in Figure 8 is incomplete: other occurrences of Cicero might belong to it. (The same will go for network *TULLY* in Figure 9.)

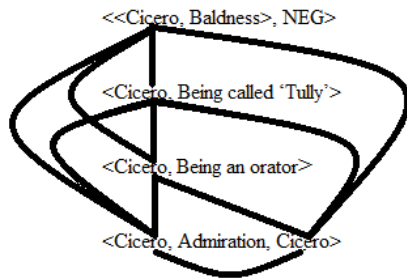


Figure 9

Analogously, in the ‘Superman’/‘Clark Kent’ case, we can suppose that the set of occurrences of Clark contained in the propositions

<Clark, Flying>  
 <Clark, Being loved by, Lois>  
 Etc.

and the set of his occurrences within the propositions

<<Clark, Flying>, NEG>  
 <Clark, Working in an office>  
 Etc.

form two distinct networks for Emily, *SUPERMAN* and *CLARK KENT*. In fact, although Emily realizes that the elements of both sets are occurrences of the *same* individual, she treats the elements of the former set as occurrences of *Superman* and the elements of the latter set as occurrences of *the journalist Clark Kent*.

Notice, incidentally, that an occurrence of an individual can simultaneously belong to different networks; in other words, *networks can have non-empty intersections*. For example, by looking at Figures 8 and 9 (pp. 189, 190), you can notice that the occurrence of Cicero in proposition (24p) belongs to both the network CICERO (Fig. 8) and the network TULLY (Fig. 9) (in accordance with the fact that Tom has the disposition to assert sincerely “Cicero is an orator” and also “Tully is an orator”).

(24p) <Cicero, Being an orator>

*Networks vs. Fine’s coordination-schemes:*

Something analogous to networks can be found in semantic relationism. However, the way in which Fine [2010] uses networks (*coordination-schemes*, in his own terminology) is quite different from the way in which they are used in the New Account: for Fine, networks (or the like) serve as a criterion for identifying new entities called *token objects* (a token of an object is in fact an abstract entity identified by the set of all positively coordinated occurrences of that object – see Characterisation 5, p. 158). For example, the networks CICERO and TULLY (or something like that) are used by Fine to identify the token individuals *Cicero* and *Tully* and, accordingly, to distinguish the token propositions *that Cicero is an orator* and *that Tully is an orator*. These “quasi-Fregean” propositions, on the other hand, are totally absent in the New Account, where networks are conceived as *purely*

*psychological* (viz. non-semantic) devices and their use is confined – as we will see in the next sections – to solve the examined Problems 1-4\* (pp. 185-188) about cognitive coordination and belief subsystems.

## 1.7 Cognitive coordination revisited

*Occurrences “under” networks:*

Let  $o_i$  be an occurrence of an object, within a proposition believed by a given subject, which belongs to a certain network,  $N$ . As such,  $o_i$  is thought by this subject to belong to  $N$  (in symbol,  $o_i^N$ ). For example, the occurrence of Cicero in proposition (6p) is thought by Tom to belong to the network CICERO (Fig. 8, p. 189), while the occurrence of Cicero in proposition (7p) is thought by Tom to belong to the network TULLY (Fig. 9, p. 190). We shall respectively represent this with (6p\*) and (7p\*<sup>20</sup>).

(6p) <Cicero, Baldness>  
 (6p\*) <Cicero<sup>CICERO</sup>, Baldness>

(7p) <<Cicero, Baldness>, NEG>  
 (7p\*) <<Cicero<sup>TULLY</sup>, Baldness>, NEG>

As we have seen (p. 190), an occurrence of an object can belong to more than one network simultaneously; e.g. the occurrence of Cicero in (24p) belongs, for Tom, both to the network CICERO and to the network TULLY. Hence Tom can think of this occurrence both “under” CICERO and “under” TULLY. In other words, Tom can think of proposition (24p) both as (24p\*) and as (24p\*\*).

(24p) <Cicero, Being an orator>  
 (24p\*) <Cicero<sup>CICERO</sup>, Being an orator>  
 (24p\*\*) <Cicero<sup>TULLY</sup>, Being an orator>

An important note before proceeding: within the New Account, (6p\*), (7p\*), (24p\*) and (24p\*\*) do *not* represent new propositions believed or somehow entertained by the subject. Russellian propositions are the *only* propositions acknowledged by this account.

*“Relativized” coordination:*

In Section 1.4, I introduced cognitive coordination as a two-place relation holding among occurrences of objects. We have seen in Section 1.5 that cognitive coordination so-conceived faces some problems. Using the notion of *occurrence “under” a network*, we are now able to devise a more general conception of coordination which avoids those problems. According to such a conception, cognitive coordination is a relation among pairs of occurrences of an object *thought of by the subject to belong to the same or different networks*.

<sup>20</sup> An occurrence of a property – e.g. the occurrence of the property of Baldness in (6p) or (7p) – is also thought of by the subject as belonging to a given network (which in the case under consideration will be the set of all occurrences of the property of Baldness that are taken and treated by Tom as occurrences of the same property). However, in order to avoid useless complications, here and in the continuation of this chapter I shall leave out of consideration networks of properties/relations.

Here is an example: suppose that Tom thinks of the two occurrences of Cicero in proposition (22p) as both belonging to the network CICERO (Fig. 8) or as both belonging to the network TULLY (Fig. 9). In either case, Tom positively coordinates these occurrences: since both occurrences belong to the *same* network, for the definition of network (p. 188), Tom takes and treats them as occurrences of the same person, *Cicero* or *Tully* respectively. In other words, Tom *positively* coordinates the two occurrences of Cicero in proposition (22p) thought of as (22p\*) or as (22p\*\*).

- (22p) <Cicero, Admiration, Cicero>  
 (22p\*) <Cicero<sup>CICERO</sup>, Admiration, Cicero<sup>CICERO</sup>>  
 (22p\*\*) <Cicero<sup>TULLY</sup>, Admiration, Cicero<sup>TULLY</sup>>

On the other hand, suppose that Tom thinks of the two occurrences of Cicero in (22p) as belonging to *different* networks, respectively CICERO and TULLY. Tom mistakes these occurrences of Cicero so-thought for occurrences of different people, *Cicero* and *Tully*; thus he will negatively coordinate them. In other words, Tom *negatively* coordinates the two occurrences of Cicero in proposition (22p) thought of as (22p\*\*\*).

- (22p\*\*\*) <Cicero<sup>CICERO</sup>, Admiration, Cicero<sup>TULLY</sup>>

From these examples and keeping in mind the original Definition 3 of cognitive coordination (p. 183) and Definition 4 of networks (p. 188), the following new definition of cognitive coordination emerges.

**Definition 3\*:** Let  $o_1$  and  $o_2$  be occurrences of an object  $o$  within the same or different Russellian propositions stored in the belief system of a given subject,  $S$ . Suppose that  $o_1$  and  $o_2$  respectively belong to the networks  $M$  and  $N$ . We will say that  $S$  *positively* (i.e. *non-negatively*) *coordinates*  $o_1$  thought of as belonging to  $M$  (in symbol,  $o_1^M$ ) and  $o_2$  thought of as belonging to  $N$  (in symbol,  $o_2^N$ ) if and only if  $M=N$ .

I will call the notion of cognitive coordination introduced by Definition 3\* *relativized coordination*, so emphasizing the fact that the original two-place relation of coordination between two occurrences of a given object has been here “relativized” to two parameters, the networks under which these occurrences are respectively thought of by the subject.

Here are, finally, the solutions in terms of networks to the problems about cognitive coordination illustrated in Section 1.5.

*A solution to the problem of occurrences which are both positively and negatively coordinated:*

Problem 1 on p. 185 raised the question of how Tom, in the light of his disposition to assert sincerely “Cicero admires Cicero” (intending to refer to the same person) and “Cicero admires Tully” (intending to refer to different people but *de facto* referring to the same) could both positively and negatively (i.e. non-positively) coordinate the two occurrences of Cicero within proposition (22p) believed by Tom. This problem can now be solved using the notion of relativized coordination: Tom positively

coordinates the occurrences of Cicero in (22p) thought of as (22p\*) while he negatively coordinates them when (22p) is thought of as (22p\*\*\*) (p. 192).

The notion of relativized coordination can also be used to solve a more complicated version of Problem 1, i.e. Problem 1\* (which, as we saw on p. 186, is not resolvable with modes of presentation): how can Susan, who asserts the sentence “Bruce admires Bruce” once with the intention of referring to the same Bruce and the other time intending to refer to two *indiscernible* Bruces (but *de facto* referring to the same), positively and negatively coordinate the two occurrences of Bruce within proposition (23p)?

(23p) <Bruce, Admiration, Bruce>

Although the occurrences of Bruce in (23p) are presented in the same way, two distinct networks about Bruce can be devised. In this connection, consider proposition (8p) which, together with (23p), is stored in Susan’s belief system. Call *BRUCE1* the set of all occurrences of Bruce that Susan takes and treats as occurrences of the same individual (either of the two Bruces) occurring in the *first* position of (8p); and call *BRUCE2* the set of all occurrences of Bruce that Susan takes and treats as occurrences of the same individual (the other Bruce, whomever he is) occurring in the *third* position of (8p).

(8p) <Bruce, ≠, Bruce>

The sets *BRUCE1* and *BRUCE2* form two networks, which are (partially) represented in Figure 10 (see below) with thin and thick threads respectively. By looking at this figure, you can notice that both *BRUCE1* (thin) and *BRUCE2* (thick) contain the two occurrences of Bruce in (23p). Given this, on the basis of the definition of networks (p. 188), Susan will take and treat the two occurrences of Bruce in (23p) thought of *both* as belonging either to the network *BRUCE1* or to the network *BRUCE2* as occurrences of the same individual. Therefore, both relative to *BRUCE1* and relative to *BRUCE2*, Susan positively coordinates the two occurrences in (23p).

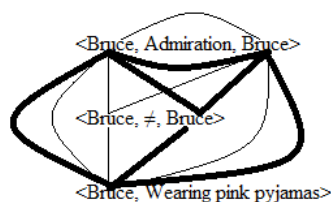


Figure 10

On the other hand, thinking of the occurrences of Bruce in (23p) as belonging to *different* networks – the first occurrence as belonging to *BRUCE1* and the second occurrence as belonging to *BRUCE2* – Susan negatively coordinates them. Summing up, the notion of relativized coordination allows the following solution to Problem 1\*: Susan positively coordinates the two occurrences of Bruce in (23p) thought of as

(23p\*) or as (23p\*\*), while she negatively coordinates them when (23p) is thought of as (23p\*\*\*).<sup>21</sup>

- (23p) <Bruce, Admiration, Bruce>  
 (23p\*) <Bruce<sup>BRUCE1</sup>, Admiration, Bruce<sup>BRUCE1</sup>>  
 (23p\*\*) <Bruce<sup>BRUCE2</sup>, Admiration, Bruce<sup>BRUCE2</sup>>  
 (23p\*\*\*) <Bruce<sup>BRUCE1</sup>, Admiration, Bruce<sup>BRUCE2</sup>>

As regards this solution, it is worth noting that the existence of two different networks about Bruce does not make the universe containing Susan and the two imaginary Bruces asymmetric: it is in fact thoroughly undetermined for Susan (and for us as well) which of the two Bruces the network BRUCE1 (or BRUCE2) is actually about.

*A solution to the problem of the non-reflexivity of coordination:*

Problem 2 on p. 186 raised doubt that the occurrence of Cicero in proposition (24p) was not positively coordinated with itself, given Tom's disposition to assert sincerely "Cicero is an orator" and "Tully is an orator" without realizing that *Cicero is Tully*.

- (24p) <Cicero, Being an orator>

Here is the solution to this problem: the occurrence of Cicero in (24p) is not positively coordinated with itself only in the case where it is thought of "under" different networks, viz. CICCERO and TULLY; otherwise stated, the occurrence of Cicero in (24p\*) is not positively coordinated with his occurrence in (24p\*\*). However, "relative" to one specific network, every occurrence of any object is positively coordinated with itself; e.g. the occurrence of Cicero in (24p\*), as well as "that" in (24p\*\*), is positively coordinated with itself.

- (24p\*) <Cicero<sup>CICCERO</sup>, Being an orator>  
 (24p\*\*) <Cicero<sup>TULLY</sup>, Being an orator>

*A solution to the problem of the non-transitivity of coordination:*

Problem 3 on p. 187 raised doubt that cognitive coordination was also not transitive: Tom seems to positively coordinate the occurrences of Cicero in (13p), (24p) and the ones in (24p), (25p) without nevertheless positively coordinating those in (13p) and (25p).

- (13p) <Cicero, Being called 'Cicero'>  
 (24p) <Cicero, Being an orator>  
 (25p) <Cicero, Being called 'Tully'>

Here is the solution to this problem: cognitive coordination emerges as a non-transitive relation when a "shift" of networks takes place; viz. Tom positively coordinates the two occurrences of Cicero in (13p\*), (24p\*) and also those in (24p\*\*), (25p\*) while he does not positively coordinate the ones in (13p\*), (25p\*). However,

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<sup>21</sup> Notice, importantly, that since networks unlike modes of presentation can solve Problem 1\*, networks are not modes of presentation.

as soon as the occurrences of an object are thought of “under” *the same network*, coordination relativized to just that network complies with transitivity.

- (13p\*) <Cicero<sup>CICERO</sup>, Being called ‘Cicero’>  
 (24p\*) <Cicero<sup>CICERO</sup>, Being an orator>  
 (24p\*\*) <Cicero<sup>TULLY</sup>, Being an orator>  
 (25p\*) <Cicero<sup>TULLY</sup>, Being called ‘Tully’>

## 1.8 Belief subsystems revisited

*Relativized B-conjunction and subsystems:*

Belief subsystems have been characterised in Section 1.3 as non-empty subsets of the belief system of a given subject which satisfy Conditions (i)-(iv) (pp. 174-177). Some of these conditions crucially involve the notion of *B-conjunction*: a subject B-conjoins two propositions, *p* and *q*, if she infers *p&q* from *p* and *q* and she believes that *p&q*.

The notion of B-conjunction, exactly as that of cognitive coordination, can be “relativized” to networks: a subject can be disposed to B-conjoin two propositions when their constituents are thought of as belonging to certain networks, while she could be unwilling to B-conjoin them when the same constituents are thought of as belonging to other networks. Accordingly, the subdivision of the belief system into subsystems will emerge as relativized to networks. This modification in the conception of B-conjunction and subsystems allows us to solve Problems 4 and 4\* (pp. 187, 188).

*A solution to the problem of propositions which are both B-conjoined and not B-conjoined:*

Consider Mr. Justice Bennett – he has the disposition to assert as a judge “Jack should be condemned” and as a humane person “Jack should not be condemned”, but neither as a judge nor as a humane person does he have the disposition to assert the conjunction of these sentences. Suppose he asserts “Jack should be condemned and Joseph should not be condemned”, failing to realize that *Joseph* is *Jack*. Given his linguistic dispositions, does Mr. Bennett B-conjoin or not B-conjoin propositions (18p) and (19p)?

- (18p) <Jack, Having to be condemned>  
 (19p) <<Jack, Having to be condemned>, NEG>

This problem can be solved by introducing two networks: *JACK*, i.e. the set of all occurrences of Jack that Mr. Bennett takes and treats as occurrence of *Jack*; and *JOSEPH*, i.e. the set of all occurrences of Jack that Mr. Bennett takes and treats as occurrence of *Joseph*. These two networks are (partially) represented in Figure 11 (p. 196) with thin and thick threads respectively.

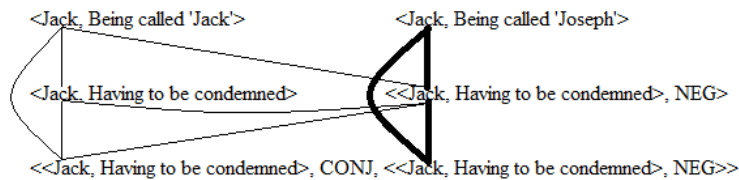


Figure 11

Now, thinking of the two occurrences of Jack in (18p) and (19p) as both belonging to JACK (thin), Mr. Bennett is not disposed to B-conjoin these propositions (coherently with his refusal to assert “Jack should be condemned and Jack should not be condemned”). On the other hand, thinking of these occurrences as respectively belonging to the networks JACK (thin) and JOSEPH (thick), Mr. Bennett is disposed to B-conjoin (18p) and (19p) (in accordance with his disposition to assert “Jack should be condemned and Joseph should not be condemned”). Otherwise stated: Mr. Bennett is disposed to B-conjoin (18p\*) and (19p\*\*), while he is not disposed to B-conjoin (18p\*) and (19p\*).

- (18p\*) <Jack<sup>JACK</sup>, Having to be condemned>
- (19p\*) <<Jack<sup>JACK</sup>, Having to be condemned>, NEG>
- (19p\*\*) <<Jack<sup>JOSEPH</sup>, Having to be condemned>, NEG>

A more sophisticated version of Problem 4 (which cannot intuitively be solved using modes of presentation) was illustrated in Problem 4\* (p. 188). By mistaking Jack for two indiscernible people both called ‘Jack’, Mr. Bennett, who believes propositions (18p) and (19p), acquires the disposition to assert sincerely “Jack should be condemned and [the other] Jack should not be condemned” without nevertheless having the disposition to assert “Jack should be condemned and [the same] Jack should not be condemned”. Given these linguistic dispositions, does Mr. Bennett B-conjoin or does he not B-conjoin (18p) and (19p)?

A solution to this problem can be achieved by introducing a further network besides JACK (Fig. 11 and 12, thin): the network *JACK2*, i.e. the set of all occurrences of Jack that Mr. Bennett takes and treats as occurrences of *the “other” Jack* (Fig. 12, thick). Here is the solution: Mr. Bennett is disposed to B-conjoin (18p\*) and (19p\*\*\*), while he is not disposed to B-conjoin (18p\*) and (19p\*).

- (19p\*\*\*) <<Jack<sup>JACK2</sup>, Having to be condemned>, NEG>

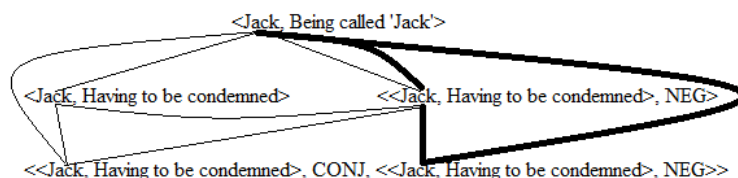


Figure 12

So, these are the solutions to Problems 1-4\*. As we have seen, the notion of network is crucially involved in them. On the other hand, it seems to me that no

essential role is played by networks in the solution to the puzzles about belief (puzzles of inconsistency, impossibility and contradiction): *the original (non-relativized) notions of cognitive coordination* (Definition 3, p. 183) and *belief subsystems* (Definition 2, p. 178) *suffice for their solution*. In the remainder of this chapter, I shall therefore set aside networks, relativized coordination and relativized subsystems (further considerations about networks can be found in the Postscript of this dissertation, where analogies and differences between them and modes of presentation will be investigated). Before presenting the New Account solution to the puzzles about belief, I would like to show that neither subsystems nor coordination are good candidates for modes of presentation (Section 1.9) and I will introduce an important constraint to which subsystems and coordination are subject in rational believers (Section 1.10).

### 1.9 Modes of presentation vs. subsystems and coordination

Reconsider the original notions of belief subsystems (Definition 2, p. 178) and cognitive coordination (Definition 3, p. 183). One might suspect that these notions are nothing but modes of presentation. This section will show that this suspicion is unfounded: neither of these notions satisfies Frege's Constraint (which defines modes of presentation) not only in the new puzzles about belief but even in the classical puzzles where candidates for modes of presentation typically satisfy the constraint.

Frege's Constraint: A rational subject cannot simultaneously believe and disbelieve *a* to be *F* under the same mode of presentation, or under different modes of presentation which she realizes are modes of presentation of the same thing.

Let us first show that *belief subsystems are not modes of presentation*. Reconsider a puzzle which is typically solved with modes of presentation, the 'Cicero'/'Tully' case. In this case, Tom believes the propositions (6p) and (7p) (see below) failing to notice that the two occurrences of Cicero in these propositions are occurrences of the same person; as a result, he also fails to notice that (7p) contradicts (6p). Nothing therefore hinders him from B-conjoining (6p) and (7p), to the effect that – according to Condition (iv) (p. 177) – (6p) and (7p) will be stored in the *same* subsystem. Thus belief subsystems cannot be modes of presentation: otherwise *Tom would rationally believe and disbelieve (6p) under the same mode of presentation (viz. from the same subsystem) contra Frege's Constraint*.

- (6p) <Cicero, Baldness>
- (7p) <<Cicero, Baldness>, NEG>

Let us see now why *cognitive coordination is not a mode of presentation*. Suppose that, being unaware that *Cicero*, *Tully* and *Marcus* are the same person and wrongly thinking that they are three different people, Tom rationally acquires the disposition to assert sincerely "Cicero admires Tully" and "Cicero does not admire Marcus". An advocate of modes of presentation, for example a Russellian representationalist (p. 93), would say in this case that Tom believes and disbelieves (22p) under two different modes of presentation, corresponding to the sentences "Cicero admires Tully" and "Cicero admires Marcus". However, Tom negatively coordinates the occurrences of Cicero in (22p) and also negatively coordinates his

occurrences in  $\langle\langle\text{Cicero, Admiration, Cicero}\rangle, \text{NEG}\rangle$ . Therefore, if *ab absurdo* cognitive coordination was a mode of presentation, *Tom would rationally believe and disbelieve (22p) under the same mode of presentation (viz. “under” negative coordination) contra Frege’s Constraint.*

(22p)  $\langle\text{Cicero, Admiration, Cicero}\rangle$

### 1.10 Subsystems, coordination and rationality

According to Salmon [1989] and Russellian philosophers in general, a *rational* subject cannot believe any proposition of the form:

$\langle a, \text{Being and not being } F \rangle$   
 $\langle a, \text{Not being identical to itself} \rangle$   
 $\langle a, \text{Being more/less } F \text{ than itself} \rangle$ .

For example, nobody can rationally believe

$\langle\text{Cicero, Being and not being bald}\rangle$   
 $\langle\text{Cicero, Not being identical to himself}\rangle$   
 $\langle\text{Cicero, Being balder than himself}\rangle$ .

The New Account endorses this constraint on rationality with an amendment (of which Salmon might certainly approve): a rational subject cannot believe any proposition of the abovementioned form *unless she is a non-classical logician* (since, as we saw in Ch. 2, Section 5.4, non-classical logicians can have at least *prima facie* good reasons for believing e.g. the Russellian proposition *that the liar sentence is and is not true*). Salmon’s constraint on rationality supplemented with this amendment yields the New Account Constraint 1.

Constraint 1: A subject *S* is irrational or is a friend of some non-classical logic if her belief system stores a proposition having one of the following forms:  $\langle a, \text{Being and not being } F \rangle$ ;  $\langle a, \text{Not being identical to itself} \rangle$ ;  $\langle a, \text{Being more/less } F \text{ than itself} \rangle$ .

Now, reconsider Property 7 about cognitive coordination, belief subsystems and B-gathering, introduced on p. 184 which I am reporting here below.

Property 7: Let  $o_1$  and  $o_2$  be occurrences of an object within the same or different Russellian propositions stored in the belief subsystem of a given subject, *S*. *S* positively (i.e. non-negatively) coordinates  $o_1$  and  $o_2$  if and only if she B-gathers them.

Given this property, Tom e.g. positively coordinates the two occurrences of Cicero in  $\langle\text{Cicero, Being an orator}\rangle$  and  $\langle\text{Cicero, Baldness}\rangle$  if and only if these propositions are stored in the same subsystem of Tom and Tom is disposed to B-gather these occurrences of Cicero, i.e. he is disposed to B-infer  $\langle\text{Cicero, Being an orator and being bald}\rangle$  (and  $\langle\text{Cicero, Being bald and being an orator}\rangle$ ) from the first two abovementioned propositions.

From Constraint 1 and Property 7, an important constraint on rationality, cognitive coordination and belief subsystems follows.

Constraint 2: A subject  $S$  is irrational or is a friend of some non-classical logic if a pair of propositions of the form  $\langle a, \text{Being } F \rangle$  and  $\langle \langle a, \text{Being } F \rangle, \text{NEG} \rangle$  are stored in the *same* subsystem of  $S$  and  $S$  positively coordinates the two occurrences of  $a$  as well as the two occurrences of Being  $F$  within these propositions. The same conclusion follows if  $S$  believes the conjunction of the abovementioned propositions under the conditions specified above, or if she believes a proposition having the form  $\langle a, \neq, a \rangle$  or  $\langle a, \text{Being more/less } F \text{ than, } a \rangle$  by positively coordinating the two occurrences of  $a$  in either proposition.

For example, suppose that propositions  $\langle \text{Cicero, Baldness} \rangle$  and  $\langle \langle \text{Cicero, Baldness} \rangle, \text{NEG} \rangle$  are stored in the same subsystem of a given subject, Sam. If Sam positively coordinates the two occurrences of Cicero and the two occurrences of the property of Baldness in these propositions (i.e. he takes and treats these two pairs of occurrences as occurrences of the same person and property respectively) then Sam will be irrational or he will be a non-classical logician. Such a conclusion is also reached in case Sam believes  $\langle \text{Cicero, } \neq, \text{Cicero} \rangle$  or  $\langle \text{Cicero, Being balder than, Cicero} \rangle$  by positively coordinating the two occurrences of Cicero in either proposition.

On the contrary, *the conclusion that a subject is irrational (or is a non-classical logician) does not follow in case the two occurrences of  $a$  or the two occurrences of the property of Being  $F$  within the propositions listed in Constraint 2 are negatively coordinated or in case the two contradictory propositions believed by the subject are stored in different subsystems.* This consideration will be crucial, in the next section, in order to solve the puzzles of inconsistency and impossibility.

## 2. Solutions to the puzzles about belief

This section will present the New Account solution to the puzzles about belief. The strategies used in this account to solve both the classical and new puzzles are the same as those adopted by Salmon [1986, 1989] and most Russellian philosophers for the solution to the classical puzzles about belief: *the puzzles of inconsistency are solved by rejecting (the principle of) Rationality; the puzzles of impossibility are solved by rejecting the Consequence of Rationality; and the puzzles of contradiction are solved by rejecting Negative Disquotation.*

Rationality: If a subject  $S$  simultaneously believes that  $p$  and believes that  $\sim p$ , then  $S$  is irrational.

Consequence of Rationality: If a subject  $S$  believes that  $p \& \sim p$ , or that  $a$  is not  $a$ , or that  $a$  is more/less  $F$  than  $a$ , then she is irrational.

Negative Disquotation: If a non-reticent subject  $S$  does not have the disposition to sincerely, on reflection and competently assert (or accept or assent to) sentence ' $p$ ', which lacks indexical or pronominal devices or ambiguities, then  $S$  does not believe that  $p$ .

Nonetheless, the justifications for rejecting these principles provided by the New Account are remarkably different from those offered by Salmon's: whereas the latter account resorts to modes of presentation, the former appeals to belief subsystems and cognitive coordination.

## 2.1 Puzzles of inconsistency

Let ' $p$ ' and ' $q$ ' be distinct tokens of the same or different sentences both expressing the Russellian proposition  $\langle a, \text{Being } F \rangle$ . From a Russellian point of view, the puzzles of inconsistency can be presented as a sequence of five steps preceded by two assumptions:

Assumption I: The subject  $S$  is intuitively rational.

Assumption II:  $S$  has the disposition to assert sincerely, on reflection and competently ' $p$ ' and ' $\sim q$ '.

Step I:  $S$  believes that  $p$  and  $S$  believes that  $\sim q$ .

Step II:  $S$  believes  $\langle a, \text{Being } F \rangle$  and  $S$  believes  $\langle \langle a, \text{Being } F \rangle, \text{NEG} \rangle$ .

Step III:  $S$  believes  $\langle \langle a, \text{Being } F \rangle, \text{CONJ}, \langle \langle a, \text{Being } F \rangle, \text{NEG} \rangle \rangle$ .

Step IV:  $S$  believes  $\langle a, \text{Being and not being } F \rangle$ .

Step V:  $S$  is irrational.

The solution proposed by Salmon and most Russellians to the puzzles of inconsistency consists of disallowing the move from Step II to Step V: although the subject believes and disbelieves the same thing viz. proposition  $\langle a, \text{Being } F \rangle$ , she is rational, *contra* the principle of Rationality. The move from Step II to Step V, on the other hand, is complex: it contains three sub-moves. Among these is the sub-move from Step III to Step IV that Salmon [1989] and others disallow. For example, in the classical 'Paderewski' case of inconsistency, they maintain that Peter believes propositions (26p), (27p) (Step II) and also their conjunction (Step III) without nevertheless believing proposition (28p) ( $\sim$ Step IV): otherwise he would be irrational, *contra* Assumption I.

(26p)  $\langle \langle \text{Paderewski}, \text{Having musical talent} \rangle \rangle$

(27p)  $\langle \langle \text{Paderewski}, \text{Having musical talent} \rangle, \text{NEG} \rangle$

(28p)  $\langle \text{Paderewski}, \text{Having and not having musical talent} \rangle$

The blocking of the move from Step III to Step IV is justified on the grounds that Peter "attaches" to Paderewski in (26p) and (27p) two different modes of presentation (corresponding to the phrases 'the pianist Paderewski' and 'the politician Paderewski') which Peter fails to realize are modes of presentation of the same person.

As far as the *classical* puzzles of inconsistency, the *New Account* endorses Salmon's solution: *it disallows the move from Step III to Step IV*. However, the justification offered here for such a block differs from Salmon's, in that it involves *cognitive coordination* instead of modes of presentation: the fact of believing propositions (26p) and (27p) (Step II) as well as their conjunction (Step III) by *negatively* coordinating the pairs of occurrences of Paderewski in these propositions (viz. by taking them as occurrences of different people) does not entail that Peter also

believes proposition (28p) (~Step IV), coherently with his intuitively rationality and with Constraint 2 (p. 199).<sup>22</sup>

Interestingly, the resort to cognitive coordination also allows us to justify the blocking of the move from Step III to Step IV in some new puzzles of inconsistency irresolvable with modes of presentation, e.g. *the 'Bruce' case* and *the Variant of the 'Paderewski' case*, in which the subject holds two contradictory beliefs about an individual whom she mistakes for two *indiscernible and homonymous* individuals. For instance, in the Variant of the 'Paderewski' case (Ch. 2, Section 5.1), Peter has forgotten nearly everything of his past meetings with Paderewski and, for this reason, he comes to believe (26p) and (27p) without attaching different modes of presentation to Paderewski in these propositions. Nevertheless, he holds these beliefs rationally, because he negatively coordinates the occurrences of Paderewski in (26p) and (27p), resulting in his not B-inferring (28p) from the conjunction of (26p) and (27p).

Another kind of new puzzle solved by disallowing the move from Step III to Step IV is the '*Superman*'/'*Clark Kent*' case, in which Emily rationally believes the contradictory propositions (9p) and (10p) (Step II), and their conjunction (Step III). Although Emily knows that Clark in (9p) and Clark in (10p) are the same individual, she does not come to believe proposition (17p) (~Step IV), because she treats "them" as two different individuals, *Superman* and *the journalist Clark Kent*; thus she negatively coordinates the two occurrences of Clark in (9p) and (10p).<sup>23</sup>

- (9p) <Clark, Flying>
- (10p) <<Clark, Flying>, NEG>
- (17p) <Clark, Flying and not flying>

Unlike the two kinds of new puzzles of inconsistency respectively exemplified by the Variant of 'Paderewski' case and the 'Superman'/'Clark Kent' case, *those involving divided or conflicting minds or perspectives or non-conscious beliefs* (Ch. 2, Sections 2-4) are solved by *disallowing the move from Step II to Step III* and by appealing to the notion of a *belief subsystem*: in these cases, the subject believes the contradictory propositions <*a*, Being *F*> and <<*a*, Being *F*>, NEG> (with the two occurrences of *a* as well as those of the property of Being *F* positively coordinated) without nevertheless coming to believe their conjunction, since (coherently with the contrapositive of Condition (iv), p. 177) the two aforementioned propositions are stored in different subsystems (and no subsystem exists comprising both). An

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<sup>22</sup> All classical puzzles of inconsistency are solved by the New Account in this way. Among such puzzles, the '*bald*'/'*shmal*' case (Ch. 1, p. 9) deserves mention for its involving coordination among properties instead of among individuals. In this case, Tom can rationally believe that Cicero is bald and disbelieve that Cicero is shmal (i.e. bald), because he fails to notice that the property contained in the believed propositions <Cicero, Baldness> and <<Cicero, Baldness>, NEG> is the same, to the effect that he *negatively* coordinates its two occurrences and consequently does not B-infer from them the proposition <Cicero, Being and not being bald>.

<sup>23</sup> The 'George Eliot'/'Mary Ann Evans' case is solved in the same way as the 'Superman'/'Clark Kent' case. Having heard Ralph say "I believe that Eliot was a man, but I do not believe that Mary Ann Evans was a man", Jane (who, unlike Ralph, knows that *George Eliot* is *Mary Ann Evans*) comes to rationally believe <Ralph, B, <Eliot, Having been a man>> and <<Ralph, B, <Eliot, Having been a man>>, NEG>. Although Jane knows that Eliot in the former proposition is the same person as Eliot in the latter proposition, she treats "them" as two different people, intending to faithfully report the beliefs belonging to Ralph, who mistakes Eliot for two people. Because of her treating Eliot in this way, Jane negatively coordinates the two occurrences of Eliot in the abovementioned propositions and, consequently, she does not B-infer from them the proposition <Eliot, Being such that Ralph believes and does not believe that she was a man>; this accounts for her intuitive rationality.

example of this is the case of Rob, the colour error theorist, who rationally holds the ordinary belief that fire engines are red and the highly theoretical belief that fire engines are not red (nor of any other colour) at the same time (Step II). Since the contradictory (Russellian) propositions *that fire engines are red* and *that fire engines are not red* are believed by Rob from distinct subsystems (and no subsystem exists comprising both propositions), Rob does not come to believe the conjunction of these propositions (~Step III).

One last kind of new puzzles, solved neither by blocking the move from Step II to Step III (like the case of the colour error theorist) nor by blocking the move from Step III to Step IV (like the ‘Paderewski’ and ‘Superman’/‘Clark’ cases) is exemplified by *the dialetheist case* (Ch. 2, Section 5.4). In this case, a non-classical logician comes to believe the Russellian propositions *that the liar sentence is true* and *that the liar sentence is not true* (Step II), their conjunction (Step III) and even the proposition *that the liar sentence is and is not true* (Step IV). The two contradictory propositions *that the liar sentence is true* and *that the liar sentence is not true* are consequently stored in the same subsystem (in accordance with Condition (iv), p. 177). Although *positive* coordination holds between the constituents of these propositions, the conclusion that the subject is irrational does not follow: as a non-classical logician, this subject has reasons to reject in some exceptional circumstances the principle of non-contradiction. The solution to the dialetheist case will then consist of *blocking the move from Step IV to Step V* (coherently with Constraint 2, p. 199).

Let us sum up the threefold strategy adopted by the New Account in order to solve the puzzles of inconsistency:

- (a) Disallowing the move from Step II to Step III in order to solve new puzzles of inconsistency, involving non-conscious beliefs or divided/conflicting minds or perspectives (e.g. the colour error theorist case), in which the subject believes two contradictory propositions from different *subsystems*;
- (b) Disallowing the move from Step III to Step IV in order to solve all classical puzzles and the kinds of new puzzles exemplified by the Variant of the ‘Paderewski’ case and the ‘Superman’/‘Clark’ case, in which the subject believes two contradictory propositions about an individual that she mistakes for or treats as two distinct individuals (*negative coordination* is crucially involved in the solution to these cases);
- (c) Disallowing the move from Step IV to Step V, in order to solve the dialetheist case, whose protagonist is a non-classical logician.

## 2.2 Puzzles of impossibility

Let ‘*a*’ and ‘*b*’ be two co-referential tokens of the same or different singular terms. From a Russellian point of view, the puzzles of impossibility can be presented in the following way:

Assumption I\*: *S* is intuitively rational.

Assumption II\*: *S* has the disposition to assert sincerely, on reflection and competently ‘*a* ≠ *b*’.

- Step I\*:  $S$  believes that  $a \neq b$ .  
Step II\*:  $S$  believes  $\langle a, \neq, a \rangle$ .  
Step III\*:  $S$  believes  $\langle a, \text{Not being identical to itself} \rangle$ .  
Step IV\*:  $S$  is irrational.

Salmon [1989], as well as most other Russellian authors, solves the puzzles of impossibility by *blocking the move from Step II\* to Step III\**. For example, in the ‘Paderewski’ case of impossibility, he maintains that Peter believes proposition (29p) (Step II\*) while not believing proposition (30p) (Step III\*). The reason why, according to Salmon, Peter does not come to believe (30p) notwithstanding the fact that he believes (29p), rests on his “attaching” different modes of presentation (corresponding to the phrases ‘the pianist Paderewski’ and ‘the politician Paderewski’) to the two occurrences of Paderewski in (29p), which Peter fails to realize are modes of presentation of the same person.

- (29p)  $\langle \text{Paderewski}, \neq, \text{Paderewski} \rangle$   
(30p)  $\langle \text{Paderewski}, \text{Being different from himself} \rangle$

The solution to the puzzles of impossibility in terms of modes of presentation does not successfully apply to new puzzles of impossibility like the ‘Bruce’ case, where Susan rationally believes proposition (8p) without attaching *different* modes of presentation to the two occurrences of Bruce in (8p).

- (8p)  $\langle \text{Bruce}, \neq, \text{Bruce} \rangle$

Both the classical and the new puzzles of impossibility are solved, in the *New Account*, by endorsing Salmon’s strategy of blocking the move from Step II\* to Step III\* and, on the other hand, by appealing to *cognitive coordination*. In particular, in the ‘Bruce’ case of impossibility, Susan believes (8p) (Step II\*) by *negatively* coordinating the two occurrences of Bruce within this proposition, since she fails to realize they are occurrences of the same individual. As a result, she does not come to believe proposition (16p) (Step III\*), and this accounts for her intuitively rationality.<sup>24</sup>

- (16p)  $\langle \text{Bruce}, \text{Being different from himself} \rangle$

### 2.3 Puzzles of contradiction

Let us see, finally, how the New Account solves the puzzles of contradiction. Suppose that ‘ $p$ ’ and ‘ $q$ ’ are distinct tokens of the same or different sentences both expressing proposition  $\langle a, \text{Being } F \rangle$ . From a Russellian point of view, all puzzles of contradiction can be presented as follows:

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<sup>24</sup> The classical puzzles of impossibility are solved by the New Account using the model of the ‘Bruce’ case of impossibility. Among these puzzles, the *Enterprise case* (p. 17) deserves mention for its involving demonstratives. A visitor to Oakland claims sincerely “That [boat] is not that [other boat]” pointing twice to the Enterprise, which he mistakes for two different boats. Hence this subject believes the proposition  $\langle \text{Enterprise}, \neq, \text{Enterprise} \rangle$ , and she does so rationally because she fails to recognize the Enterprise in the first and the third position of this proposition as the same boat, with the result of negatively coordinating its two occurrences in  $\langle \text{Enterprise}, \neq, \text{Enterprise} \rangle$ . We might suppose, additionally, that the subject in question positively coordinates these occurrences with two different images of the Enterprise stored in her *visual system* – i.e. the homologous for mental images of the belief system.

Assumption: A non-reticent speaker, *S*, has the disposition to assert sincerely, on reflection and competently ‘*p*’ but not ‘*q*’.

Step I\*\*: *S* believes that *p* and *S* does not believe that *q*.

Step II\*\*: *S* believes <*a*, Being *F*> and *S* does not believe <*a*, Being *F*>. Contradiction!

The New Account endorses Salmon’s [1986] solution to these puzzles, which consists of denying Step I\*\* viz. *denying that S does not believe that q*.

*An argument for this solution:*

Salmon’s solution to the puzzles of contradiction seems the most plausible for whoever endorses the Russellian semantics of belief reports (Section 1.1), the principle of Positive Disquotation (p. 166) and other very basic principles/rules such as the principle of non-contradiction and the rule of conjunction. In fact, according to the Assumption above, *S* has the disposition to assert sincerely, on reflection and competently ‘*p*’. By virtue of Positive Disquotation, *S* will then believe that *p*. Therefore, she will believe that *q*, since by supposition ‘*p*’ and ‘*q*’ express the same Russellian proposition, <*a*, Being *F*>. But then *it is false that S does not believe that q*.

*Principles rejected:*

The cost of the adoption of Salmon’s solution to the puzzles of contradiction is the rejection of Negative Disquotation (see below): *S* does believe that *q*, notwithstanding her refusal to assert sincerely, on reflection and competently ‘*q*’. In addition, the principle of the Luminosity of Non-Belief (also reported here below) is rejected: *S* (who refuses to assert ‘*q*’) has the disposition to assert sincerely, on reflection and competently ‘I do not believe that *q*’; by virtue of Positive Disquotation (p. 166), *S* believes that she (herself) does not believe that *q*; on the other hand, this second-order belief is false, since *S* believes the Russellian proposition that *p*, i.e. that *q*, given her sincere disposition to assert sentence ‘*p*’.

Negative Disquotation: If a non-reticent subject *S* does not have the disposition to sincerely, on reflection and competently assert (or accept or assent to) sentence ‘*p*’, which lacks indexical or pronominal devices or ambiguities, then *S* does not believe that *p*.

Luminosity of Non-Belief: If *S* believes that she (herself) does not believe that *q*, then *S* does not believe that *q*.

*A problem with the rejection of these principles:*

Both Negative Disquotation and the Luminosity of Non-Belief are intuitive principles. How can their rejection be justified? Typically, Russellian philosophers justify it by appealing to modes of presentation: *S* refuses to assert ‘*q*’ and has disposition to assert sincerely ‘I do not believe that *q*’ (the latter revealing *S*’s holding the second-order belief that she (herself) does not believe that *q*) notwithstanding her believing (the Russellian proposition) that *p*, i.e. that *q*, because she fails to recognize this

proposition under the mode of presentation corresponding to sentence ‘*q*’. For example, in the ‘*Cicero*’/‘*Tully*’ case of contradiction, Tom refuses to assert “Tully is bald” while he asserts “I do not believe that Tully is bald” despite his believing the Russellian proposition that Cicero (i.e. Tully) is bald, because he fails to recognize this proposition under the mode of presentation corresponding to “Tully is bald”.

Nevertheless, this kind of explanation in terms of modes of presentation does not work with the new puzzles of contradiction, e.g. the *judge case*. In this case, Mr. Justice Bennett on the basis of humane considerations asserts “I do not believe that Jack should be condemned” and refuses to assert “Jack should be condemned”, even though he believes the proposition

(18p) <Jack, Having to be condemned>

under the mode of presentation corresponding to the sentence “Jack should be condemned” since on the basis of judicial considerations he has the disposition to assert this sentence.

Neither does the explanation in terms of modes of presentation work in the *Variant of the ‘Paderewski’ case* in which Peter, in certain circumstances, has the disposition to assert “I do not believe that Paderewski has musical talent” and not to assert “Paderewski has musical talent”, even though he believes the proposition

(26p) <Paderewski, Having musical talent>

under the mode of presentation corresponding to “[The other] Paderewski has musical talent” (remember that in the Variant of the ‘Paderewski’ case, the two presumed Paderewskis appear indiscernible).

*The New Account solution to this problem:*

The New Account justifies the rejection of Negative Disquotation and the Luminosity of Non-Belief in the puzzles of contradiction by appealing to cognitive coordination and belief subsystems.

In particular, in the *judge case* – according to this account – Mr. Bennett’s belief system contains a subsystem, call it  $\mathcal{B}_2$  (see Fig. 13, p. 206), which stores proposition (18p). Mr. Bennett’s asserting “I do not believe that Jack should be condemned” and refusing to assert “Jack should be condemned” notwithstanding his having proposition (18p) in his belief system is justified by the fact that *whenever he respectively asserts and refuses to assert these sentences, he leaves out of consideration  $\mathcal{B}_2$  – i.e. the subsystem storing (18p) – focusing his attention instead on another of his subsystems,  $\mathcal{B}_1$ , where (19p) and (31p) are stored*. In particular, the token belief having proposition (31p) as content is responsible for prompting Mr. Bennett to assert “I do not believe that Jack should be condemned”. Figure 13 (p. 206) represents  $\mathcal{B}_1$  and  $\mathcal{B}_2$ . (Intuitively, subsystem  $\mathcal{B}_1$  “corresponds” to the humanitarian perspective while subsystem  $\mathcal{B}_2$  “corresponds” to the judicial perspective.)

(18p) <Jack, Having to be condemned>

(19p) <<Jack, Having to be condemned>, NEG>

(31p) <<<Mr. Bennett, B, <Jack, Having to be condemned>>, NEG>

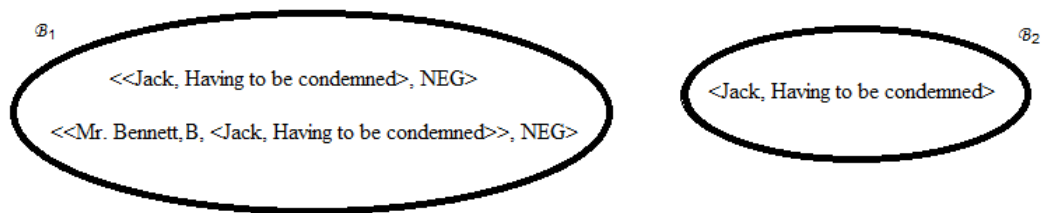


Figure 13

While belief subsystems serve to justify the abandonment of Negative Disquotation in cases like the judge case, cognitive coordination plays an analogous role in the *Variant of the 'Paderewski case'* (and other similar cases). In this variant, Peter's belief system stores the propositions

- (26p) <<Paderewski, Having musical talent>
- (27p) <<Paderewski, Having musical talent>, NEG>
- (32p) <<Peter, B, <Paderewski, Having musical talent>>, NEG>

in the same subsystem (since, in accordance with Condition (iv), p. 177, Peter is disposed to B-conjoin all these propositions). The token belief which has proposition (32p) as content is responsible for prompting Peter to assert "I do not believe that Paderewski has musical talent". *The fact that Peter, in certain circumstances, asserts this sentence and refuses to assert "Paderewski has musical talent" notwithstanding his believing (26p) can be explained by the fact that he negatively coordinates the occurrence of Paderewski in (26p) with his occurrences in (27p) and (32p), since he fails to recognize them as occurrences of the same person.* Figure 14 below represents Peter's belief subsystem storing propositions (26p), (27p) and (32p). The unbroken and broken threads in the figure stand for positive and negative coordination respectively.

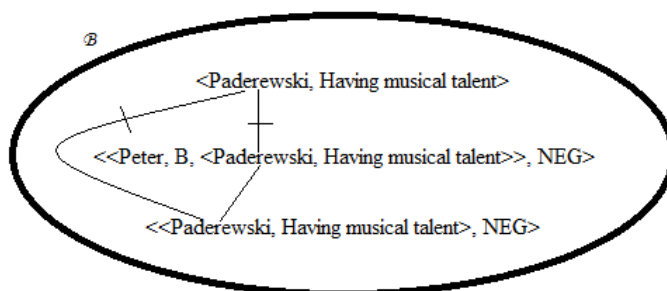


Figure 14

### 3. Solution to other problems

Cognitive coordination and belief subsystems can also be exploited to solve further problems, already illustrated in Ch. 4, that typically affect the Russellian accounts of belief reports: the anti-substitution intuition problem, the negative belief-reporting

intuition problem, a problem concerning token beliefs and their content. This section will briefly review such problems and will illustrate the New Account solutions to them.

### 3.1 The anti-substitution intuition problem and the *de dicto/de re* distinction

Why do so many rational people have the intuition that inferences like (Inf 4) are invalid if, according to Russellianism and therefore according to the New Account, they are actually valid?

- (Inf 4)  
 (P4a) Tom believes that Cicero is bald.  
 (P4b) Cicero is Tully.  
 ∴ (C4) Tom believes that Tully is bald.

This is what in Ch. 4, Section 1.2, I called ‘anti-substitution intuition problem’. Let us see how the New Account solves this problem, by confining our attention to the case of a rational person, say Mary, who *believes-true* the premises of (Inf 4) and *believes-false* its conclusion. Mary’s belief system will then store the propositions (33p)-(36p) in the *same* subsystem (since Mary is disposed to B-conjoin all of them). In these propositions, the occurrences of Cicero are coordinated in the way depicted in Figure 15 (unbroken and broken threads respectively represent positive and negative coordination). Now, the fact that Mary’s belief system stores proposition (33p), where the occurrence of Cicero is positively coordinated with his occurrence in (35p), accounts for her believing-true sentence (P4a). *What hinders Mary from substituting salva veritate ‘Cicero’ with ‘Tully’ in (P4a) is the fact that the occurrence of Cicero in (33p) is negatively coordinated with the one in (36p)* – due to Mary’s treating them as occurrences of two different people, given her intention to faithfully report Tom’s beliefs about Cicero, whom Tom mistakes for two people, *Cicero* and *Tully*.

- (33p) <Tom, B, <Cicero, Baldness>>  
 (34p) <<Tom, B, <Cicero, Baldness>>, NEG>  
 (35p) <Cicero, Being called ‘Cicero’>  
 (36p) <Cicero, Being called ‘Tully’>

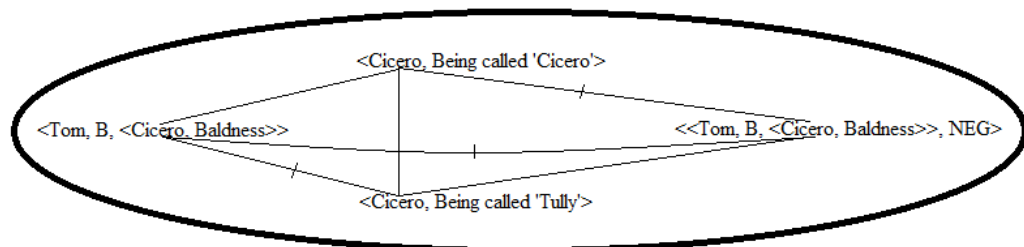


Figure 15

*A difficulty with this solution:*

There are circumstances in which Mary is actually disposed to substitute *salva veritate* ‘Cicero’ with ‘Tully’ in (P4a). For example, talking to a person who only knows Cicero as *Tully*, Mary could make the intuitively correct *de re* report (C4) – instead of the *de dicto* report (P4a).<sup>25</sup> How can Mary’s willingness to substitute, in this circumstance, ‘Cicero’ with ‘Tully’ in (P4a) be made consistent with her maintaining the subsystem and the coordinative links represented in Figure 15?

*Response:*

In the circumstance I have just described, Mary’s attention is not focused on the subsystem depicted in Figure 15 (which accounts for Mary’s making the *de dicto* report (P4a)) but on another subsystem, viz. the one, between those depicted in Figure 16 (p. 209), which stores proposition (33p). In Figure 16 (where the unbroken threads stand, as usual, for positive coordination), the occurrence of Cicero in (33p) is positively coordinated both with the one in (35p) and *with the one in (36p)*, to the effect that Mary will be disposed to substitute ‘Cicero’ with ‘Tully’ in (P4a).

It is worth emphasizing the fact that the contradictory propositions (33p) and (34p) represented in Figure 16 are stored in *different* subsystems. This is in accordance with Constraint 2 (p. 199), taking into account that, whereas Mary has the disposition to make the intuitively *de dicto* composite report “Tom believes that Cicero is bald but he does not believe that Tully is bald”, under no circumstance would she make the intuitively *de re* composite report “Tom believes that Tully is bald and Tom does not believe that Tully is bald” (in fact, she only has the disposition to make the individual *de re* reports forming this composite report *separately*, viz. in different circumstances). As a result of these linguistic dispositions, whereas in the *de dicto* case Mary is disposed to B-conjoin propositions (33p) and (34p) to the effect that (coherently with Condition (iv), p. 177) these propositions will be stored in the same subsystem (as reported in Figure 15), in the *de re* case Mary is not disposed to B-conjoin such propositions which (by virtue of the contrapositive of Condition (ii), p. 174) are consequently stored in distinct subsystems (as represented in Figure 16).

Finally, how can Mary be simultaneously disposed to B-conjoin (in the *de dicto* case) and not to B-conjoin (in the *de re* case) propositions (33p) and (34p)? This question can be answered by appealing to the notion of relativized B-conjunction (Section 1.8): Mary is disposed to B-conjoin (33p) and (34p) relative to certain networks, while she is not disposed to B-conjoin them relative to other networks (I shall here omit details about these networks for avoiding useless complications).

It emerges from these considerations that the *de dicto/de re* distinction, which several philosophers (including Fine) conceive as a *semantic* distinction, is explained away, within the New Account, as a *psychological* distinction.

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<sup>25</sup> I am here appealing to an *intuitive de dicto/de re* distinction. A *de dicto* belief context is a linguistic context where a belief of a given subject is reported so as to be faithful to how the believer herself would express it; a belief context is said to be *de re* if it is not *de dicto*.

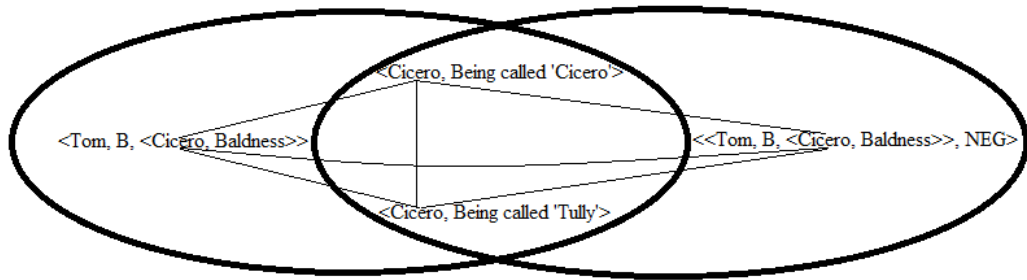


Figure 16

### 3.2 Negative belief-reporting intuition problem

Why do so many rational people take inferences like (Inf 5) and (Inf 6) as valid if, according to Russellianism and therefore according to the New Account, they are actually invalid?

(Inf 5)

Tom is disposed to assert sincerely, on reflection and competently “I do not believe that Tully is bald”.

∴ Tom does not believe that Tully is bald.

(Inf 6)

Tom, a non-reticent speaker, does not have the disposition to assert sincerely, on reflection and competently “Tully is bald”.

∴ Tom does not believe that Tully is bald.

This is what in Ch. 4, Section 2.3, I called ‘negative belief-reporting intuition problem’. Figure 15 (p. 207) suggests a solution to this problem in the particular case of rational person, say Mary, who *believes-true* the conclusion of (Inf 5) and (Inf 6) (“Tom does not believe that Tully is bald”) along with the sentence “Tom believes that Cicero is bald”. Mary’s belief system will contain a subsystem storing propositions (33p)-(36p), in which the occurrences of Cicero are coordinated in the way depicted in Figure 15. *Since the occurrence of Cicero in (34p) is positively coordinated with his occurrence in (36p) – but not with the one in (35p) – Mary has the inclination to take the conclusion of (Inf 5) and (Inf 6) to be correct.*

(33p) <Tom, B, <Cicero, Baldness>>

(34p) <<Tom, B, <Cicero, Baldness>>, NEG>

(35p) <Cicero, Being called ‘Cicero’>

(36p) <Cicero, Being called ‘Tully’>

Incidentally, the fact that Mary simultaneously has the *contradictory* propositions (33p) and (34p) in the same subsystem does not jeopardize her rationality, since (coherently with Constraint 2, p. 199) the two occurrences of Cicero in these propositions are treated by her as occurrences of different people and therefore they are negatively coordinated (as Mary is intending to faithfully report Tom’s beliefs about Cicero, whom Tom mistakes for two people).

### 3.3 A problem with token beliefs and their content

In Chapter 4, Section 3.2, I illustrated the following problem about Russellianism. Suppose that Tom acquires at time  $t_1$  the belief that *Cicero* is an orator and, together with it, he also acquires the disposition to assert sincerely “Cicero is an orator” without nevertheless having the disposition to assert “Tully is an orator”. Given this, many of us will have the inclination to take sentence (37) as true and to maintain that the name ‘Cicero’ in (37) is not substitutable *salva veritate* with ‘Tully’. On the other hand, how can Russellian philosophers justify this, compatibly with their maintaining that: Substitution (p. 166) never fails; proper names contribute to the propositions semantically expressed solely with their referent; and modes of presentation do not enter into the semantic content of belief reports?

(37) Tom is at  $t_1$  in the belief state that Cicero is an orator.

I can see only one genuinely Russellian solution to this problem (i.e. only one coherent with the abovementioned theses about substitution, proper names and belief reports): *identifying token beliefs by means of their Russellian content*. If so, *contra* our pre-theoretical intuitions, the token belief that Tully is an orator will be identical to the token belief that Cicero is an orator, since these beliefs have the same Russellian content, i.e. proposition  $\langle \text{Cicero, Baldness} \rangle$ . Consequently, the name ‘Cicero’ in (37) is substitutable *salva veritate* with ‘Tully’.

*Two difficulties with this solution:*

If the belief that Tully is an orator is nothing but the belief that Cicero is an orator, (j) how can we account for the fact that at time  $t_1$  this single belief prompts Tom to assert “Cicero is an orator” without prompting him to assert “Tully is an orator”? Also, (jj) how can we justify Tom’s and our wrong impression that the beliefs that Cicero is an orator and that Tully is an orator are distinct?

*Reply to (j):*

At  $t_1$  the occurrence of Cicero in Tom’s belief that Cicero (i.e. Tully) is an orator is positively coordinated with his occurrence in Tom’s belief that Cicero is called ‘Cicero’ (while at that time Tom presumably does not hold the belief that Cicero is called ‘Tully’). These two coordinated beliefs account for Tom’s disposition at  $t_1$  to assert sincerely “Cicero is an orator” (and not “Tully is an orator”).

Notice that if at a later time  $t_2$  Tom also acquired the disposition to assert sincerely “Tully is an orator”, he would also have at that time in his belief system the belief that Cicero is called ‘Tully’, and the occurrence of Cicero within it would be positively coordinated with his occurrence in Tom’s belief that Cicero (i.e. Tully) is an orator. These two coordinated beliefs would prompt Tom to assert “Tully is an orator”.

*Reply to (jj):*

Whoever thinks that distinct beliefs are held by Tom in the case under discussion mistakes *two clusters of beliefs* for two single beliefs: one cluster is formed by Tom’s belief that Cicero is an orator, his belief that Cicero is called ‘Cicero’ plus the coordinative link between the two occurrences of Cicero within these beliefs; the

other cluster is formed by Tom's belief that Cicero is an orator, his belief that Cicero is called 'Tully' plus the coordinative link between the two occurrences of Cicero within them.<sup>26</sup>

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<sup>26</sup> The two clusters of beliefs could also be viewed as respectively: the proposition <Cicero, Being an orator> plus the network CICERO, i.e. something like <Cicero<sup>CICERO</sup>, Being an orator>; and the proposition <Cicero, Being an orator> plus the network TULLY, i.e. something like <Cicero<sup>TULLY</sup>, Being an orator>.

## Postscript

My goal in this dissertation was to show that modes of presentation are neither necessary nor sufficient to solve the puzzles about belief. I showed that they are *not sufficient* by presenting, in Chapter 2, a number of new puzzles about belief that, unlike the classical puzzles, cannot be solved using modes of presentation. These new puzzles include in particular: (j) puzzles (like the ‘Bruce’ case, the variant of the ‘Paderewski’ case, etc.) in which the subject believes two contradictory propositions, or a self-contradictory or illogical proposition, about an individual that this subject mistakes for two *indiscernible* individuals; and (jj) puzzles (like the judge case, the colour error theorist case, etc.) in which the subject believes two obviously contradictory propositions *separately*, viz. without being disposed to B-conjoin such propositions. Then, in Chapter 6, I showed that modes of presentation are also *not necessary* to solve the puzzles about belief by devising a new Russellian account of belief reports (*New Account*) which solves the new puzzles of type (jj) using *belief subsystems* and those of type (j), along with the classical puzzles, using *cognitive coordination*. I proved (Ch. 6, Section 1.9) that neither belief subsystems nor cognitive coordination are modes of presentation.

On the other hand, we have also seen (Ch. 6, Section 1.5) that the New Account encounters certain problems, independent of the puzzles about belief, whose solution requires the introduction of a third device: *networks*. I defined a network as the set of all occurrences of a given object, contained in the propositions believed by a given subject at a given time, which this subject takes and treats as occurrences of the same object. For example, in the ‘Cicero’/‘Tully’ case, where Tom mistakes Cicero for two people, *Cicero* and *Tully*, the set of occurrences of Cicero (i.e. Tully) entering the propositions believed by Tom are subdivided by him into two (possibly overlapping) subsets: the set of all occurrences of *Cicero*; and the set of all occurrences of *Tully*. These subsets form two networks, *CICERO* (Fig. 8, p. 189) and *TULLY* (Fig. 9, p. 190). Now, given the intuitive similarity between these networks and the modes of presentation corresponding to the names ‘Cicero’ and ‘Tully’, one may wonder if networks are a suitable candidate for the role of modes of presentation and if modes of presentation conceived as networks are able to solve all puzzles about belief.

A Russellian account of belief reports allegedly involving modes of presentation so-conceived and aiming to solve all puzzles about belief (call it *Alternative Account*) could perhaps be delineated along the following lines. Take for granted Salmon's account of belief reports with networks playing the role of guises. Let us impose on networks this constraint:

Constraint 3: A subject is irrational or is a friend of some non-classical logic if she believes one of the following propositions and thinks of the two occurrences of  $a$  as well as of the two occurrences of the property of Being  $F$  within these propositions to belong to the same networks:

$\langle\langle a, \text{Being } F \rangle, \text{CONJ}, \langle\langle a, \text{Being } F \rangle, \text{NEG} \rangle\rangle;$   
 $\langle a, \neq, a \rangle;$   
 $\langle a, \text{Being more/less } F \text{ than}, a \rangle.$

In other words, a subject is irrational or is a friend of some non-classical logic if she believes one of the following propositions, where  $M$  is a network about  $a$ ,  $N$  is a network about Being  $F$  and the symbol  $o_i^X$  stands for an occurrence  $o_i$  of a given object  $o$  thought of by the subject to belong to a given network  $X$ :

$\langle\langle a^N, \text{Being } F^M \rangle, \text{CONJ}, \langle\langle a^N, \text{Being } F^M \rangle, \text{NEG} \rangle\rangle;$   
 $\langle a^N, \neq, a^N \rangle;$   
 $\langle a^N, \text{Being more/less } F \text{ than}, a^N \rangle.$

In the light of this constraint, the Alternative Account solution to the classical puzzles, e.g. the 'Cicero'/'Tully' case, would go as follows: Tom can rationally believe the self-contradictory conjunction

$\langle\langle \text{Cicero}, \text{Baldness} \rangle, \text{CONJ}, \langle\langle \text{Cicero}, \text{Baldness} \rangle, \text{NEG} \rangle\rangle$

since, coherently with Constraint 3 (above), he thinks of this proposition as

$\langle\langle \text{Cicero}^{\text{CICERO}}, \text{Baldness} \rangle, \text{CONJ}, \langle\langle \text{Cicero}^{\text{TULLY}}, \text{Baldness} \rangle, \text{NEG} \rangle\rangle,$

where the networks CICERO and TULLY differ. A new puzzle like the 'Bruce' case could be solved on the grounds that Susan rationally believes  $\langle \text{Bruce}, \neq, \text{Bruce} \rangle$  thinking of this illogical proposition as  $\langle \text{Bruce}^{\text{BRUCE1}}, \neq, \text{Bruce}^{\text{BRUCE2}} \rangle$ , where BRUCE1 (Fig. 10, p. 193, thin threads) and BRUCE2 (Fig. 10, p. 193, thick threads) are two different networks. Finally, in the judge case, Mr. Justice Bennett is able to rationally believe the contradictory propositions

- (1)  $\langle \text{Jack}^{\text{JACK}}, \text{Having to be condemned} \rangle$
- (2)  $\langle\langle \text{Jack}^{\text{JACK}}, \text{Having to be condemned} \rangle, \text{NEG} \rangle\rangle,$

because he does not B-infer from (1) and (2) their conjunction, i.e.

$\langle\langle \text{Jack}^{\text{JACK}}, \text{Having to be condemned} \rangle, \text{CONJ}, \langle\langle \text{Jack}^{\text{JACK}}, \text{Having to be condemned} \rangle, \text{NEG} \rangle\rangle,$

which, if believed, would make Mr. Bennett irrational, according to Constraint 3.

The account of belief reports sketched above seems an interesting and simple alternative to the New Account. It should be noted, on the other hand, that it does not have the same explanatory power as the latter. In fact, reconsider the judge case. Why from the contradictory propositions (1) and (2) does Mr. Bennett not B-infer their conjunction? Whereas the New Account can provide an explanation of this phenomenon by appealing to belief subsystems, the Alternative Account has nothing to say about Mr. Bennett's unwillingness to B-conjoin (1) and (2). Thus *modes of presentation conceived as networks do not suffice to solve all considered puzzles about belief*: something else, viz. belief subsystems, is also needed.<sup>1</sup>

At any rate, *it is strongly doubtful that networks can be modes of presentation*. Notice, in this connection, that networks violate both parts of Frege's Constraint (p. 197): according to the Alternative Account, in the 'Superman'/'Clark Kent' case, Emily rationally believes

<Clark, Flying>  
 <<Clark, Flying>, NEG>

thinking of the two occurrences of Clark under different networks, SUPERMAN and CLARK KENT, that Emily *realizes* are networks of the same person, *contra* part (ii) of Frege's Constraint; in the judge case, Mr. Bennett rationally believes (1) and (2) thinking of the two occurrences of Jack under the *same* network, JACK (Fig. 11, p. 196, thin), *contra* part (i) of Frege's Constraint.

It could be replied that networks, however, satisfy one of the variants of Frege's Constraint discussed in Chapter 2, i.e. FC3; and this variant could be used as a replacement of Frege's Constraint for the definition of modes of presentation.

FC3: A rational subject cannot simultaneously believe and disbelieve *a* to be *F* under the same mode of presentation and from the same subsystem.

Yet I think there is still good reason to resist the conclusion that networks are modes of presentation. Think again what a network is: a network is the set of all occurrences of an object that the subject takes and treats as occurrences of the same object. It seems to me quite inappropriate to identify a mode of presentation with the set of the "things" that it presents. More plausibly, a mode of presentation is a *property that these "things" exemplify, from a subjective point of view*. For instance, reconsider the networks CICERO and TULLY in the 'Cicero'/'Tully' case. A mode of presentation of Cicero will presumably be a property that, according to Tom, all and only the occurrences of Cicero contained in the same network exemplify. But consider now the 'Bruce' case, where Susan mistakes Bruce for two indiscernible individuals. Two distinct networks of Bruce are available in this case: BRUCE1, which is the set containing the first but not the second occurrence of Bruce in the proposition, believed by Susan, <Bruce, ≠, Bruce> (plus other occurrences); and BRUCE2, which is the set containing the second but not the first of his occurrences in such a proposition (plus other occurrences). Since the two imaginary Bruces are indiscernible, *no* property allows us to distinguish between the elements of one network and the elements of the other (except for trivial/uninteresting properties like

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<sup>1</sup> The "best" account of belief (call it *Simplified Account*) could possibly be constructed by simplifying the New Account in this way: the notion of coordination would be subsumed by networks and the only devices forming the Simplified Account, besides Russellian propositions, would be networks and subsystems relativized to networks.

*Being an element of BRUCE1). In conclusion, it seems that neither can modes of presentation plausibly be identified with networks; nor, in the 'Bruce' case, can different modes of presentation "emerge" in any interesting way from the two networks, BRUCE1 and BRUCE2.*

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