

A Note on Belief Reports and Context Dependence

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Abstract The aim of this paper is to pose a problem for theories that claim that belief reports are context dependent. Firstly, I argue that the claim (interpreted in the spirit of moderate contextualism) is committed to *verbalism*, a theory that derives the context sensitivity of belief reports from the context sensitivity of the psychological verbs used in such reports. Secondly, I argue that verbalism is not an attractive theoretical option because it is in conflict with the non-*proto-rigidity* of verbs like ‘believe’. Finally, I describe various consequences that the argument has for invariantism and moderate contextualism.

Keywords Context dependence · Indexicality · Belief reports · Intentional sentences · Contextualism · Minimalism

The aim of this paper is to pose a problem for theories that claim that *belief reports qua belief reports* are context dependent. In the course of the paper, the phrase ‘belief report’ will be used to mean a sentence implicitly or explicitly containing the verb ‘to believe’ (or any of its synonyms). The phrase ‘belief report qua belief report’ is used deliberately. First, belief reports are complex sentences containing various parts that unquestionably might be sensitive to various contextual factors.¹ However, since I am interested here only in (possible) sensitivity *peculiar to what remains constant in different belief reports*, I shall take into consideration what remains common and specific to various belief reports. Second, we must somehow abstract from contextual effects possibly specific to verbs that semantically imply ‘to believe’ (without being entailed by ‘to believe’). For instance, several authors claim that knowledge attributions are context dependent. Regardless of the correctness of this view and the fact that knowledge entails belief, neither the hypothesis that knowledge

¹In this paper, the two phrases ‘context dependent’ and ‘context sensitive’ (and their derivatives) are treated as synonyms.

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attributions are context dependent, nor the hypothesis that they are not, have a direct impact on the question of whether *belief reports qua belief reports are context dependent*.²

Thus said, one must note that the very wording of the main problem gives rise to several difficult issues that might have an indirect impact on its possible solutions: What is the proper syntax of belief reports? Can the context dependence always be traced back to syntactically terminal elements of syntactically complex structures? What tests or data conclusively establish context sensitivity of a given expression? Due to the complexity of these (and other related) questions and the lack of space, I shall only touch their surfaces. To that extent, the problem I am going to present clearly presupposes important theoretical decisions made with respect to these (and other) issues. Notwithstanding this obvious defect, it remains to be said that it shares this property with probably all philosophical problems.

The structure of the paper is as follows. In Part 1, I will review the problem of the criteria of context sensitivity. In Part 2, I shall discuss three alternative approaches to the context sensitivity of belief reports. In Part 3, I will talk the notion of *proto-rigidity* over and I am going to argue that proto-rigidity is a necessary condition for the context sensitivity of general terms. In Part 4, I shall argue that belief predicates are not proto-rigid. I will close the paper with remarks regarding the implications of the argument for the debate about the context sensitivity of belief reports.

1 Context Dependence: a Strawsonian Picture

Let me start with a brief sketch of how one might conceive of context sensitivity as a phenomenon. I shall call this sketch ‘Strawsonian’ because it presupposes the accurateness of an enriched version of a well-known threefold distinction by Strawson (cf. Strawson 1956), i.e. an *expression type*, its *use*, and its *utterance* (this is the ‘enriched version of Strawsonian distinction’ because Strawson’s original taxonomy ought to be supplemented by a fourth element—the token of a given expression type). Why do I think that some version of the enriched Strawsonian distinction is required? First, the notion of context sensitivity *presupposes* that something *qua* the subject of context dependency must have two complementary aspects, i.e. one that remains consistent throughout contextual changes and one that varies when an appropriate contextual process takes place. The former is required to speak about the context dependency of *this* or *that item* (and not just about *two items* that somehow differ in two different settings); the latter must distinguish context-dependent and context-independent things. It goes without saying that a type-token-use-utterance distinction has an important role to play when one wishes to separate the two aforementioned aspects.

Roughly speaking, we assume that a sentence such as:

- (1) I am hungry.

² On the other hand (contrary to what Stanley suggests; cf. Stanley 2004, p. 132), the positive reply to this question has a direct consequence for theorists considering the question: Are knowledge reports context dependent? If one denies that, she must explain what cancels the contextual effect. If one acknowledges the presence of contextual effects, she must answer an additional question: Are they somehow derivative from the context dependence of belief reports?

The sentence might be used in various occasions in order to express different propositions (or to make different statements, as Strawson prefers). A particular event of using (1) is called *an utterance* of (1), while a physical object that occurs in those utterances (a sequence of sounds, an inscription, etc.) is called *a token* of (1). The crucial notion of *use* is understood here functionally; we are dealing with two different uses of a single expression type in the case when two tokens (of that type) differ with respect to its referential or (more generally) truth-conditional role or function. Thus, for instance, the word ‘I’ occurs in two uses when (1) is uttered by different persons.³

The initial intuition that exploits the supplemented Strawsonian distinction is that one ought to say that context sensitivity is a property of *types* of expression/utterances/uses that is derivative of certain facts about actual and possible utterances and uses. The Strawsonian hierarchy of types, tokens, uses, and utterances allows us to formulate this intuition as the first *necessary* condition for the context dependence of an expression type *E* (which I shall call the *Variability Constraint* (VC)).

Variability Constraint

Some *possible* uses of an expression type *E* differ in content in such a way that this difference can be traced back to differences in contexts in which *E* is used.

For instance, (1) meets this constraint easily. However, it can be argued that sentences like (2), (3), and (4)–(6)⁴ also meet it.

- (2) The present emperor of China lives in Asia.
- (3) All students failed.
- (4) Nero believed that Rome is situated on the Tiber.
- (5) Nero believed that the capital of Augusti is situated on the Tiber.
- (6) Nero believed that the capital of Caesars is situated on the Tiber.

What is more controversial is that probably for every sentence *S* or expression type *E*, we can find two uses that differ with respect to their content and link this difference to the differences in contexts. For example, a pretty good candidate for a context-independent sentence:

- (7) Ice floats on the water.

The sentence meets the Variability Constraint. One could argue that (7) might have a different content when uttered among researchers who study possible sources of contamination of certain types of mineral water and when it is used by laymen in a regular conversation.

Hence, the question of whether Variability Constraint is also a sufficient condition can be seen as one of the crucial differences between minimalists and radical contextualists. In a nutshell, every minimalist assumes that the condition is insufficient

³ This notion of use must be distinguished from another one: that of *usage* or a *manner of use*. Indexicals such as ‘I’ when uttered by different persons occur both in different uses as well as in a single usage or a manner of use (for more about use/usage distinction, see Pelc 1979, pp. 345–349).

⁴ (5) and (6) are modified versions of the example used by Ajdukiewicz (cf. Ajdukiewicz 1967). The use of ‘Caesar’ as a title dates back to the time *after* the death of Nero while the use of ‘Augustus’ as a title predates Nero’s reign.

because each case of context dependence additionally requires that contextual processes are linguistically guided. Radical contextualists, on the contrary, claim that “(...) every single linguistic expression is subject to context shifting” (Cappelen and Lepore 2003, p. 27) and think of the condition as sufficient.⁵ The sufficient character of the Variability Constraint is also implicitly presupposed by philosophers who adhere to so-called *Context-Shifting Arguments*⁶ or use one or other version of the snapshot strategy.⁷ Moderate contextualists cut the baby in half. On the one hand, when it comes to saturation or other bottom-up pragmatic processes, they say that only “(...) *some* expressions of a natural language, which are not obviously context sensitive, are in fact context sensitive” (Borg 2007, p. 342); however, on the other hand, in the case of top-down processes such as free enrichment, there are no restrictions to context sensitivity.

It follows that philosophers who are not radical contextualists and who are interested in bottom-up pragmatic processes must clearly add something to the Variability Constraint in order to delimit the class of context-dependent expressions. One possible option is to introduce the condition of *Linguistic Control Constraint*.

Linguistic Control Constraint

The meaning of an expression-type *E* contains information (transparent and available to a competent language user) about the manner of contextual dependency of the truth-conditional contribution of the expression *E*.

Linguistic Control Constraint (LCC) is probably met by all classical indexicals belonging to the so-called Basic Set of Context Sensitive Expressions (the meaning of ‘today’, for instance, specifies how the reference of a particular use of ‘today’ is related to the moment of the utterance of ‘today’: ‘Today’ refers to the day that contains the moment of the utterance of ‘today’). It is probably met by the so-called contextuials (e.g. ‘foreigner’). It is true that the universal and sufficient character of such information (and the appropriate linguistic rules) can be questioned (cf. Predelli 2005, pp. 40–58; Mount 2008). This, however, hardly calls into question the fact that important classes of context-sensitive expressions encode rules similar to the one given for ‘today’.⁸ A thing that one might lose sight of here is that LCC provides a way to

⁵ Of course, Cappelen and Lepore are not committed to radical contextualism.

⁶ “Someone in the business of investigating context sensitivity *contemplates* and *imagines* language as used in contexts *other* than the one she happens to find herself in. She is, after all, interested in the way in which the content is influenced by variation in the context of utterance; in particular, she tries to elicit intuitions about whether *what is said*, or *expressed* by, or *the truth conditions* of an utterance vary in some systematic way depending on the contexts of the utterance. To do so, she imagines a range of utterances, *u1...un*, of a sentence *S*. The resulting data consists of her reports of, and the audience’s own intuitions about, the content of *u1...un*. The arguments that appeal to this kind of evidence we call *Context Shifting Arguments*.” (Cappelen and Lepore 2005, p. 10)

⁷ “Consider a particular snapshot of how things happen to be (...) and keep it unchanged as you shift from one utterance to the other. If one utterance, but not the other, is intuitively evaluated as providing a true description of the way things are, then the application of the system to the former ought to yield a *t*-distribution different from that associated with the latter.” (Predelli 2005, p. 141). The terms ‘system’ and ‘*t*-distribution’ are used by Predelli as technical terms for, respectively, a theory that assigns interpretation to elementary expressions and predicts the interpretation of admissible combinations of elementary expression and for the assignment of truth values relative to alternative points of evaluation.

⁸ A simple clock analogy might be useful here. Clocks are designed to indicate the time of day, but they can also be used to indicate, for instance, a particular moment of a sports event or computer game, just as ‘I’ might refer not to the speaker but to a figure used in a board game.

easily solve the problem of context sensitivity of many controversial expressions or constructions (belief reports included); since their meanings encode no transparent rules that govern context-content relationships, one might arrive at the conclusion that controversial cases of context sensitivity are, in fact, merely apparent cases. Though this might be correct, I prefer to interpret this simple observation as providing a demarcation criterion for distinguishing between systematic (linguistically governed) and nonsystematic context dependence. For that reason, I will not assume that LCC is necessary for context dependence.⁹

To sum up, there can be no doubt that the Variability Constraint is necessary for context dependence. However, additional criteria are required if one wants to avoid falling into radical contextualism by delimiting the class of context-sensitive expressions. Radical contextualism, on the other hand, remains an open general possibility.¹⁰ I shall come back to the issue of additional criteria for context dependence in Section 3 below.

2 Belief Reports: Context Dependence of What?

In an interesting recent paper, Dorr (2014) proposed a simple taxonomy of theories of the context dependence of attitude verbs.¹¹ He believes that the taxonomy is based on something he calls the *Principle of Constituency* (Dorr 2014, p. 59):

Every context-sensitive sentence must have at least one context-sensitive elementary constituent.

This is, I think, slightly misleading; the Principle of Constituency applies to particular sentences and their constituents while theories distinguished by Dorr attempt rather to indicate *kinds* or *categories*¹² of constituents that are sources of context dependence (it is logically possible, though probably not very likely, that the Principle of Constituency is true, and that within a given category of context-dependent sentences, there is no single kind of constituent which is the source of context dependence).

⁹ Let me just mention that LCC seems to be clearly sufficient for context dependence (if the meaning of an expression *E* encodes information about the influence of context on *E*'s content, then *E* is context dependent). Another possible constraint (I shall call it *Incompleteness Constraint*) which seems to be sufficient (and not just necessary) is explored in the so-called incompleteness arguments (cf. Cappelen and Lepore 2005). By and large, these state that if a sentence *S* expresses a complete proposition when used in some context and, at the same time, does not *semantically* express a complete proposition (where *S* semantically expresses a proposition *p* if *p* is compositionally determined by semantic values of articulated constituents of *S*), then *S* is context dependent (since the context must play a role in passing from incomplete—or inaccurate—semantic content to complete propositional content expressed in the context).

¹⁰ However, as a theory trivializing the question of context dependency as a property of expressions, it is irrelevant for the question of the context sensitivity of the expression 'to believe'.

¹¹ In this section, I am using the phrases 'attitude report' and 'belief report' interchangeably. The fact that Dorr's considerations apply generally to all attitude reports is of little relevance here, since belief reports are *ipso facto* exemplary cases of attitude reports.

¹² Kinds or categories include 'attitude sentence', 'belief sentence', 'existential sentence', 'attitude verb', 'that clause', etc. The procedure of singling out a kind or category (in this sense) is pragmatically motivated by theoretical aims and interests that might (but do not have to) correspond to syntactical considerations.

Hence, Dorr's taxonomy is based rather on something that might be called the *Generalized Principle of Constituency*:

Every relevant kind of context-sensitive sentence is such that each sentence of that kind must have at least one kind of context-sensitive elementary constituent.

Dorr's taxonomy mentions three general options:

- *Verbalism*. "The relevant form of context-sensitivity is due to context-sensitivity in attitude verbs." (Dorr 2014, p. 60)
- *Clausalism*. "The relevant form of context-sensitivity is due not to the attitude verbs, but to their sentential complements." (Dorr 2014, p. 61)
- *Hidden-indexicalism*. "The distinctive form of context-sensitivity exhibited by attitude reports is due neither to propositional attitude verbs nor to their clausal complements. Rather, it is due to some unpronounced constituents which are really present in the syntax of the relevant sentences, although they have no phonological or orthographic manifestation." (Dorr 2014, p. 61)

Here, Dorr rightly, I believe, ignores the option which locates the source of context dependence in the conjunct 'that' (we may call it *conjunctism*). His reason for the exclusion is that conjunctism enables a possibility that the proposition expressed by a (context insensitive) sentence p might differ from the proposition to which the phrase 'that p ' refers to (in some context). I also think that other reasons for that exclusion exist. First, some attitude reports do not contain the conjunct 'that' at all (consider: 'He believes his condition is a direct result of a football career' or 'Even with these events unfolding in Yemen, the White House believes the approach is working').¹³ Second, and more importantly, if, as we presuppose, inquiring into the possibility of context dependence of attitude (or belief) reports means inquiring into the possibility of context dependence *peculiar* to attitude (or belief reports), then 'that' hardly counts as an interesting subject of the study since it is present in numerous non-attitude constructions (e.g. negative statements: 'It is not the case that p ', nominalizations: 'That p is F ', certain uses of the truth predicate: 'It is true that p ', etc.)

However, similar remarks apply to the second of the distinguished positions: *clausalism*. First, containing a sentential complement is hardly a specific property of attitude reports. Second, sentential complements are not elementary constituents of attitude reports. Although this simple fact is noted by Dorr (cf. Dorr 2014, p. 61), it has a rather unwelcome consequence for clausalism: for every attitude report, AR , clausalism must indicate an elementary constituent of the sentential clause of AR that is the source of the context dependence of AR . Since probably *every* syntactically correct sentence of a given natural language might play a role of such a sentential complement, looking for a *single kind or category of expression* that is the source of context dependence of attitude reports is a non-starter. To use an analogy, it resembles the task of looking for a single consonant that is present in every English noun. Finally,

¹³ This point might be dismissed by appealing to the high plausibility of the hypothesis that at the level of logical form or deep structure even such constructions contain the conjunct 'that'.

if the source of context dependence is to be traced back to respective sentential clauses, then (if some such clauses are context independent) some belief reports will end up as context independent. In such a case, there is no such thing as *context dependence of the category of attitude reports* (there is only the context dependence of particular attitude sentences). The other option—namely that all possible sentential complements are context dependent—results in another version of the problem just described: There is literally no hope that one can indicate a single category of expression that is responsible for the context dependence of attitude reports. It follows that clausalism is, in fact, no better than conjunctism.

It seems, therefore, that we are left with verbalism and hidden indexicalism. I have no doubt that the former alternative must be taken seriously. On the other hand, in the case of hidden indexicalism, we have to be very careful about the nature of unpronounced constituents that are the supposed source of context sensitivity. I think that careful analysis of this issue shows that hidden indexicalism shares shortcomings with clausalism and conjunctism. Let me elaborate on this point.

The basic idea behind hidden indexicalism (common to all its versions) is that all belief and other attitude reports contain two inseparable (yet distinguishable) aspects: *information about the content of someone's attitude state* and *information (possibly partial) about the manner in which that content is presented to the subject of the attitude state*.

The most popular version of this view (discussed, for example, in Schiffer 1992) claims four things:

- i. Belief reports (and possibly other attitude sentences) contain belief (or attitude) predicates that are, at the level of the surface structure, two-place predicates.
- ii. Belief reports (and possibly other attitude sentences), at the level of deep structure or logical form, are three-place predicates that contain a third unpronounced argument place for modes of presentations of propositional contents (where propositional contents are usually the second argument of the predicate in question).
- iii. Belief reports are existential statements that are committed to the existence of the type of the mode of presentation which is the third argument of the belief predicate.
- iv. The type of the mode of presentation is contextually given.

Hence, the logical form of sentences such as (6) appears as follows (I am intentionally ignoring reference to structured propositions that is common for hidden indexicalists).

(6') $\exists m [\tau(m) \wedge \text{Believed}(\text{Nero, the proposition that the capital of Caesars is situated on the Tiber, } m)]$

or rather (since, by itself, (6') does not guarantee that m is the mode of presentation of the proposition that the capital of Caesars is situated on the Tiber)¹⁴:

¹⁴ Adding the 'being of' requirement seems essential for the following reason: in the case of abstract objects like propositions, it might happen that an agent mistakenly associates with an object, a particular manner of presentation of something else. For instance, I might think of a certain function as represented by a particular diagram even if, due to a tiny detail I am overlooking, the diagram represents a different function.

(6'') $\exists m [\tau(m) \wedge \text{Believed}(\text{Nero}, \text{the proposition that the capital of Caesars is situated on the Tiber}, m) \wedge \text{Of}(m, \text{the proposition that the capital of Caesars is situated on the Tiber})]$

According to this version of hidden indexical theory, in contexts where the type of mode of presentation restricts values of m to modes of presentation that could have actually played a role in Nero's cognitive life, (6'') is false (since Nero has never heard of the honorific 'Caesar'), while in contexts where the title 'Caesar' is used just as an imprecise synonym of 'Roman Emperor', it intuitively counts as true. In other words, the truth value of the following propositional function:

(6''') $\exists m [[...]_C(m) \wedge \text{Believed}(\text{Nero}, \text{the proposition that the capital of Caesars is situated on the Tiber}, m) \wedge \text{Of}(m, \text{the proposition that the capital of Caesars is situated on the Tiber})]$

might vary for different contextually assigned values of [...].

Let me introduce some useful terminology at this point. Let us say that an occurrence¹⁵ of an expression E is *directly context sensitive* (with respect to a larger expression $C(E)$ that contains an occurrence of E as a part) if its semantic value is determined directly by a context (jointly with the linguistic meaning or the character of the expression E), without the mediation of other occurrences of expressions in $C(E)$. In this sense, for instance, 'I' is directly context sensitive with respect to 'I am hungry'. Let us also say that an occurrence of an expression E is *indirectly context sensitive* (with respect to an expression $C(E)$) if: (i) its semantic value is (possibly partially) determined by the semantic value of some other occurrence A (possibly implicit) of some expression in $C(E)$, (ii) A does not contain E as a part, and (iii) A is directly or indirectly context sensitive.

Roughly speaking, if a predicate (verbs included) or propositional function contains (implicitly or explicitly) an argument place, it normally can take any type of argument; one that is directly context sensitive, indirectly context sensitive, or context insensitive (we may call such a predicate or propositional function *liberal* [with respect to a particular argument position]). For instance, probably all verbs can take all types of arguments in the agent position. The same applies to the propositional argument of attitude verbs. For instance, an occurrence of 'She should not smoke' might be directly context dependent in 'Bill Clinton thinks that she should not smoke'; 'He should not smoke' is indirectly context dependent in 'He thinks that he should not smoke'; and since 'think' might also take context-independent propositional arguments ('Bill Clinton thinks that $23 + 32 = 55$ '), 'think' is a liberal verb (with respect to propositional arguments). This means that there is no essential connection between a particular predicate and the context sensitivity of a given *type* of argument.

One might consider here an abstract possibility that a certain type of argument of a predicate is *essentially* (directly or indirectly) context sensitive. This possibility seems unattractive in the case of articulated arguments (due to the openness to substitution

¹⁵ The term 'occurrence' is used here to refer to particular linguistic items that are terminal elements of a given complex expression. As such, it applies primarily to expression types and derivatively to uses and tokens of particular expression types.

salva congruitate). However, it looks *prima facie* more promising in the case of implicit arguments. In fact, this is exactly what is being postulated if one assumes that the logical form of attitude reports follows the pattern of (6')–(6''). Here, one of the arguments (τ) of the whole propositional function

$$(II) \tau(m) \wedge \text{Bel}(x, p, m) \wedge \text{Of}(m, p)$$

is explicitly directly context sensitive. Moreover, the proponents of hidden indexical theory say that τ is always directly context sensitive, i.e. *there are no cases in which this type of argument is supplied in a different manner* (in particular in a context-independent manner). Hence, the whole propositional function (II) is non-liberal (with respect to τ) in the previously defined sense.

Even though I believe that hidden indexical theory (thusly formulated) has several advantages over rival approaches, I think that it fails at the level where it claims to be *indexical*. If indexicality here means (as intended by hidden indexicalists) essential indexicality of the *category* of attitude reports, then this must be understood as a thesis that every belief report is an instantiation of a non-liberal (with respect to τ) propositional function (II). This, however, cannot be true since we can (at least in philosophical jargon) say things like:

- (8) Bill Clinton believes that $23 + 32 = 55$ under the mode of presentation $(20 + 3) + (16 \times 2) = 55$, but he does not believe it under the mode of presentation $\sqrt{529} + \sqrt{1027-3} = \sqrt{\frac{6050}{2}}$.

where the mode of presentation is explicitly mentioned, and because of that fact, context plays no role in its determination. In other words, even if in most cases belief reports might introduce contextually restricted quantification over modes of presentation, in some cases they do not. Hence, the indexicality is no more the property of the category of *belief* or *attitude report* than it is the property of, for instance, the category of singular terms. Just as in the latter case, one can at most say that some singular terms are indexical and others are not; in the former, she is at most allowed to say that some instances of belief reports are indexical. If this is correct, hidden indexicalism, conceived as a theory that attempts to indicate a common source of context dependence in all belief/attitude reports, cannot achieve its main goal.¹⁶

Not everybody will find this unpalatable. One may, for example, think that making the reference to the mode of presentation explicit does not eliminate the indexical element. It could be argued that it is well known that explicit mention of the proper name of the speaker and the proper name of a place¹⁷ would not make the following sentence (tense ignored) non-indexical.

¹⁶ Even though I do not discuss here other variants of hidden indexicalism (like adjunctivism; cf. Ludlow 1996) or that of Crimmins 1992), the observations made above also apply to these theories. The point I make is general: assuming that there are essentially indexical arguments in every propositional function corresponding to every belief report ignores the possibility of explicit non-indexical reference to the argument in question.

¹⁷ Assuming, contrary to some authors, that proper names are not indexical.

Here, in Worms, I, Martin Luther, stand!

Per analogiam, she may claim that the logical form of ‘Bill Clinton believes that $23 + 32 = 55$ under the mode of presentation $(20 + 3) + (16 \times 2) = 55$ ’ is given by:

$$(8.1). \quad \exists m [\tau(m) \wedge \text{Believes}(\text{Bill Clinton, the proposition that } 23 + 32 = 55, m) \wedge \text{Of}(m, \text{the proposition that } 23 + 32 = 55) \wedge m = m_{(20+3)+(16 \times 2) = 55}]$$

and that the explicit mention of the mode of presentation potentially *reinforces* the information that is implicitly conveyed in the context in which ‘Bill Clinton believes that $23 + 32 = 55$ ’ may occur (note that the semantic value of ‘here’ and ‘I’ in ‘Here, in Worms, I, Martin Luther, stand!’ is not given cataphorically: the sentence is false if the speaker is not Luther or the place of utterance is not Worms; hence, if the speaker is Luther and the place is Worms, then one may say that the explicit mention of the name reinforces the semantic value of ‘here’ and ‘I’). The question is, therefore, that of whether the transformation of the sentence ‘Bill Clinton believes that $23 + 32 = 55$ ’ into ‘Bill Clinton believes that $23 + 32 = 55$ under the mode of presentation $(20 + 3) + (16 \times 2) = 55$ ’ is analogous to the one of ‘Here I stand!’ into ‘Martin Luther stands in Worms’ or rather into ‘Here, in Worms, I, Martin Luther, stand!’.

In the case of the last three sentences, one may note that they all three differ in character (at least if proper contexts are taken into account): the first one expresses (possibly different) contingent propositions in distinct contexts, the second expresses a single contingent proposition (in every context), and the third one expresses different contingent propositions in some contexts and (assuming the necessity of difference) an impossible proposition in others.¹⁸ I think that the observation may be generalized to other cases: if (8.1) is the logical form of the first conjunct of (8), then one must presuppose that (given the necessity of difference) ‘Bill Clinton believes that $23 + 32 = 55$ ’ is capable of expressing impossible propositions in some contexts—contexts that provide a contextually determined mode of presentation different from $m_{(20+3)+(16 \times 2) = 55}$. I also think that, on the contrary, it is clear that ‘Bill Clinton believes that $23 + 32 = 55$ ’, no matter what the context is, never expresses an impossible proposition. Therefore, the reinforcement interpretation must be eliminated as inadequate.¹⁹

I have one more comment here. The argumentation sketched out above is valid only to the extent that verbalism and hidden indexicalism are competing options (as Dorr suggests). However, it might rather be correct to think of hidden indexicalism simply as a variant of verbalism. In fact, authors such as Mark Richard (cf. Richard 2013) explicitly adhere to verbalism²⁰ while, at the same time, postulate hidden constituents

¹⁸ Its form is: ‘Stands (I, Here) \wedge I = Luther \wedge Here = Worms’.

¹⁹ Assuming the following *necessary* constraint on mutual paraphrases (S and S'): for every context c : if S expresses p in c , then there exists a context c' in which S' expresses p . In this sense, ‘Martin Luther stands in Worms’ may be an adequate paraphrase of ‘Here I stand!’ because there is a context c where ‘Here I stand!’ expresses the same proposition as ‘Martin Luther stands in Worms’ does. At the same time, ‘Here, in Worms, I, Martin Luther, stand!’ cannot be an adequate paraphrase of ‘Here I stand!’ because in contexts where the speaker is not Luther or the place of utterance is not Worms, ‘Here, in Worms, I, Martin Luther’, stand!’ expresses an impossible proposition and there are no contexts in which ‘Here I stand!’ expresses an impossible proposition.

²⁰ “I propose that ‘believes’ and other verbs of propositional attitude are indexical.” (Richard 2013, p. 80).

within the logical form of belief reports. If this is what hidden indexicalism means, then their position is immune to the criticism presented above.

It seems, therefore, that of all three options described by Dorr, verbalism remains the only viable one. The main problem with its alternatives is that they attempt to pose context dependence as a property of the category of belief/attitude reports, while, at the same time, are either unable to acknowledge some sentences of that category as context independent or to show a homogeneous source of the supposed context dependence. This suggests that when discussing context sensitivity of the category of belief/attitude reports, we might ignore the aforementioned alternatives to verbalism. I will, therefore, delimit my discussion to the latter theory.

3 Proto-Rigidity

Before continuing on the subject of verbalism, let us return for a moment to the problem of the criteria of context dependence. I have argued before that, first, a Variability Constraint is an obvious necessary condition of context sensitivity and, second, that the task of finding supplementary criteria is by no means easy. Without attempting to solve this difficult problem, I would like to argue briefly that there is another good candidate for a prerequisite of context sensitivity.

Rigidity Constraint

All possible uses of an expression type E have a constant content in every context of use.²¹

This constraint is widely approved when it comes to classical indexicals and demonstratives (Kaplan 1989). It is well known that within the class of singular terms, the most problematic is that of complex demonstratives which are claimed (by some) to be both context dependent and non-rigid. However, if one pays attention to the modal criteria of rigidity (as Kaplan does), it is hard not to reject the view that enables sentences like:

- (9) This inhabitant of the Arctic [the speaker points at a walrus named Wido] could have been an inhabitant of the Antarctic.

to have an interpretation according to which (9) is true if and only if there are worlds where Wido migrates between the Arctic and the Antarctic. Hence, mostly due to the absence of an attractive alternative, I will assume that Rigidity Constraint (RC) applies without restriction to all indexicals and demonstratives, complex demonstratives included.²² From the viewpoint of this paper, the crucial question is: Does this diagnosis extend to predicates?

In order to answer this question, we need to find the notion of rigidity applicable to predicates. As is commonly known, the issue is very controversial; since the publication

²¹ Alternatively, one might refer to the constraint as *Direct Reference Constraint*. I avoid this manner of speaking due to a rather strong connection between direct reference and the appeal to structured propositions. I leave open the question of whether RC and VC are jointly sufficient for context dependence.

²² I am assuming here that all definite descriptions are non-referring terms, so the issue of the possibly non-directly referential character of indexical or incomplete descriptions does not arise.

of Kripke's lectures and Putnam's famous paper, one of the most difficult problems of the modern philosophy of language has been to fill the gap between the rigidity thesis restricted to singular terms and the rigidity thesis extended to general terms. Since, despite numerous attempts, the problem has not been solved, philosophers started to look for conceptual prerequisites of rigidity that, in the case of general terms, are free of the notorious triviality problem (how one can make sense of the rigidity of general terms without making all general terms rigid). Recently, Jussi Haukioja (2006) introduced the notion of proto-rigidity which meets this demand. Below, I will take his lead.

The definition of proto-rigidity is expressed as follows:

An expression E is proto-rigid if:

- i. Its normal application is based on manifest properties.
- ii. It has a stable non-manifest criterion of correct application across possible worlds.

As explained by the author:

Proto-rigid expressions (...) have an element of reference-fixing in their semantics: the nonmanifest properties which *in fact happen* to be involved in triggering our recognitional capacities in the *actual* world are taken to determine their correct application, not just in the actual world, but also in other possible worlds. (Haukioja 2006, p. 162)

An important feature of the notion of proto-rigidity is that it is not committed to any particular theory of semantic value of general terms. It presupposes only that "(...) predicates have criteria of correct and incorrect usage, in a variety of actual and non-actual particular cases" (Haukioja 2006, p. 167) and that we have a clear idea of notions such as that of manifest property (and its complement) and recognitional capacity.

How does the notion of proto-rigidity overcome the triviality problem? Consider two predicates: F = 'walrus' and G = 'T-shirt'. Haukioja's definition allows us to discriminate between the two cases. Even though normal applications of both F and G are based on manifest properties, only the former has stable non-manifest criteria of application across possible worlds (that have something to do with theoretically relevant biological properties of walruses, for instance, with their evolutionary history and constitution). The latter clearly lacks the non-manifest criteria of correct application: there is no more to being a T-shirt than being a shirt with a T-shaped body and sleeves.

Now, our previous Rigidity Constraint (restricted to singular terms) is supplemented with the following requirement (valid for general terms²³):

²³ I do not want to assume, as Haukioja does (Haukioja 2006, p. 162), that proto-rigidity is a common feature of singular terms and natural kinds of predicates. This claim is committed to equating the relevant non-manifest properties with individual essences. This is controversial in the case of proper names of, for instance, places, events, historical periods, or institutions. It is even more controversial in case of indexicals (if 'now' is proto-rigid, what non-manifest property is responsible for its cross-world application—an individual essence of an instant?)

Proto-Rigidity Constraint

All *possible* uses of an expression type *E* are proto-rigid in every context of use: (a) their actual application (in that context) is based on manifest properties and (b) they have the stable non-manifest criterion of correct application across possible worlds.

What argument can one give in support of Proto-Rigidity Constraint (PRC) as applicable to predicates²⁴? I believe that the constraint might be *partially* justified in the following manner. First, let us consider a general question if one can find clear-cut candidates for *context-insensitive* expressions. I think that no matter what position within the contextualism-minimalism debate one takes, one must somehow acknowledge the fact that predicates we used to call ‘theoretical’ are clearly context insensitive (in fact, I think that—jointly with mathematical and logical terms—they are a paradigmatic case of context-insensitive expressions). Expressions such as ‘H₂O’, ‘electron’, ‘social group’, ‘gravitational wave’, ‘gene’, ‘concept’, or ‘species’ (to the extent they are used in their regular ‘technical’ senses) do not change their content together with the change of contexts. To use the popular Kaplan terminology, they have both stable content and character. Within the class of all such terms, one may distinguish two general kinds. The first can be functionally reduced to observational ones; the ones that embrace terms that have their meaning given (and exhausted) by connections with observational terms (like ‘the species’). The second is a class of terms that do not have this property: the class is irreducible to observational terms.²⁵ Now, expressions of both classes are not proto-rigid in the defined sense (although this is due to different reasons). Consider the first class. If the terms in this class are reducible to observational terms, they clearly do not have non-manifest criteria of stable application across possible worlds; there is nothing more to being an element of the denotation of these terms than simply having the observable properties expressed by the observational predicates they reduce to. Consider, now, the latter class. Even though its elements all have stable non-manifest criteria of application across possible worlds, the very same non-manifest criteria are also the criteria of actual application of the relevant terms. In other words, the actual application of the terms is not based on manifest properties. In both cases, therefore, theoretical terms do not count as proto-rigid. This, of course, does not prove that context sensitivity entails proto-rigidity (we have shown only that a limited class of context-independent expressions is also a class of non-proto-rigid expressions). However, this can be seen as a partial justification of PRC; we have good reason to think that it holds for expressions that are (in the relevant sense) like theoretical terms.

²⁴ Strictly speaking, we are interested here in the atomic (non-analyzable) predicates only. Predicates like ‘my book’, ‘his dog’, or ‘living philosopher’ are not on that list as they are reducible to complex propositional functions involving overtly indexical singular terms like ‘*x* is a book \wedge have(*I*, *x*)’.

²⁵ The distinction I have in mind corresponds to some extent to the one between *abstracta* and *illata* as introduced by Reichenbach (cf. Peijnenburg 1999). The difference is that *abstracta* might be reducible to both *concreta* and *illata*, while I assume above that something is either reducible to *concreta* or not. Let me just note that there is no conflict here; the argument given above treats the cases of *abstracta* reducible to *concreta* and *illata* as a special case of non-reducible theoretical terms.

4 Belief Predicates Are Not Proto-Rigid

Verbalism claims that the relevant form of context sensitivity is “(...) due to context sensitivity in attitude verbs”. In the case of belief reports, it states therefore that this is due to the context sensitivity of the verb ‘believe’. Since ‘believe’ is a relational predicate, verbalism requires that ‘believe’ satisfies the Proto-Rigidity Constraint. In other words, it requires that every actual application of this predicate (in a given context) is based on manifest properties and that it is (in this very context) endowed with stable non-manifest criteria of correct application across possible worlds.

I think that there are good philosophical reasons to deny this possibility as ‘belief’ seems to be a clear case of a theoretical term (as has been suggested by Carnap, Reichenbach, Sellars and Lewis, to mention just a few prominent representatives of this view). If this is the case, we have two options. The first (less plausible) option is that it is completely reducible to observational terms (behavioural terms, for instance). In this case, there are no reasons to endow it with stable non-manifest criteria of correct application across possible worlds; there is nothing more to being a belief than behaving in a particular manner in particular situations. The second (much more plausible) option is that it is not reducible to observational terms (it is related to certain observational terms in a probabilistic manner only). In both cases, it is hard to admit that there are purely manifest criteria of application of that term in the actual world.²⁶ Consider an example: the predicate ‘believes that $2 + 3 = 5$ ’ is correctly applicable to an agent on the basis of her or his overt behaviour *only if* certain additional assumptions regarding other (non-observable) states of the agent (and normality of the situation) are met. Hence, it does not have purely manifest criteria of correct application. Given all of this verbalism, this simply cannot be true.

There remains another important thing to be noted here. If ‘believes’ is a theoretical (and empirical) term, it shares with other expressions of that sort a feature of being an ‘open-texture’ predicate. The property of being an open-texture concept or predicate amounts to the indefeasible uncertainty of all its (non-vacuous) applications. To quote Waismann, who coined the term ‘open-texture’: “(...) no concept is limited in such a way that there is no room for any doubt” (Waismann 1951). Open-texture comes in degrees: in certain cases, special sceptical considerations are required to question the applicability of the predicate or term, but in others, the situation is much more straightforward; many non-vacuous applications of the predicate can be questioned on regular empirical grounds. Consider, for instance, the following example according to Marcus:

Consider the subject who assents to all the true sentences of arithmetic with which he is presented and rejects the false ones; who can perform the symbolic operations that take him from true sentences of arithmetic to true sentences of arithmetic, and who also has toward them the belief feeling. Yet if you ask him to bring you two oranges and three apples, he brings you three oranges and five apples. He never makes correct change. (Marcus 1993, p. 239)

²⁶ In fact, finding such manifest criteria would mean that we have an easy way of breaking out of the intentional circle.

Now, for every correct (and justified) application of the predicate ‘believes that $2 + 3 = 5$ ’ (to the agent), one can find a correct (and justified) application of the predicate ‘believes that $2 + 3 \neq 5$ ’ (to the very same agent). In other words, in cases of that sort, the appropriate belief sentences are easily warrantedly assertable. In fact, this applies to every situation where distinct belief indicators support conflicting belief attributions. In such cases, it is quite easy to confuse warranted assertability and intuitive truth-value assessment and arrive at a contextualistic conclusion that *what is said* by ‘N believes that $2 + 3 = 5$ ’ is different when it is uttered by someone who witnessed N performing certain calculations and different when she witnessed N bringing three oranges and five apples when asked to bring two oranges and three apples. Recanati (Recanati 2004, pp. 141–144) interprets the concept of *open-texture* as radically contextualistic in nature. I think, on the contrary, that he paints distinct properties with the same brush: the *context sensitivity of predicates* and the *instability of application conditions of predicates*. I prefer to interpret the latter notion as related to justified (warranted) assertability. I think that this interpretation is much closer to Waismann’s original idea that was introduced as linked with *verifiability* rather than with *truth-conditional content*.

Hence, the dilemma: It seems that one cannot have in one theory of belief reports context dependence (peculiar to belief reports) and acknowledgment of the fact that the predicate ‘believe’ is a theoretical term. I will finish with some remarks about ways out of this dilemma. I think that none of these should be presently treated as better than rival options.

The first obvious reaction to the dilemma is to simply reject moderate contextualism. According to this, context dependence is not a categorical property of expressions. Hence, in particular, it does not make sense to speak of the context sensitivity of the verb ‘believe’. Since the dilemma sketched above presupposes that the verb is the source of context dependence, the radical contextualist might remain unaffected.

Another possible reaction is to deny that the predicate ‘believe’ is a theoretical term. In fact, this is one of the most important points brought up in the seminal theory of belief reports proposed by Stephen Stich (1983). Roughly speaking, Stich proposes that all belief reports are in fact complex comparison judgments that involve a complex context-dependent notion of *content similarity* (Stich 1983, pp. 84–110). However, it is important to note that Stich’s strategy differs in many important respects from verbalism. First, it is similar to a family of views called error theories: it states that regular utterances of belief reports do not mean what they are supposed to mean. Second, due to that fact it is not a consequence of the *Generalized Principle of Constituency* (despite its similarities to Davidson’s version of conjunctism), the context sensitivity in question has nothing to do with the explicit or implicit constituents of belief reports—it is rather the effect of what is going on at the level of their ‘true’ (re)interpretations. As such, this theory, at the same time, avoids both verbalism and the claim that the belief predicate is a theoretical term.²⁷

One might also accept that the belief predicate is a theoretical term and reject verbalism thoroughly. But how does such an approach accommodate certain facts

²⁷ Another theory that denies that attitude predicates are theoretical terms is a measurement theoretic account of propositional attitudes (cf. Matthews 2007). However, since it interprets propositional attitude attributions in a measure theoretic way, it shares invariance with the theoretical account sketched above.

regarding belief reports that are neatly explained by theories such as hidden-indexicalism (interpreted now as a version of verbalism)? Consider an example used to motivate the context sensitivity claim (cf. Richard 2013; Stojanovic 2014):

Mutt and Jeff agree on what sentences Odile accepts. They agree about her dispositions to behaviour. They agree on just about everything which seems relevant to the question, does Odile believe that Twain is dead? They don't agree on the answer. When Mutt was asked, it was because someone wanted to know whether Odile would list Twain under dead Americans. Mutt knew she accepted 'Twain is dead' and thus said 'yes'. Jeff was asked by someone who couldn't understand why Odile, who's pointing to Twain's picture, wants to meet him. Doesn't she realize that Twain is dead? Jeff knew she rejected 'he's dead.' He answered that, no, Odile didn't believe that Twain was dead. (cf. Richard 2013, p. 80)

That a proponent of a theoretical view of belief predicate can explain the fact that (10):

(10) Odile believes that Twain is dead.

seems intuitively true in some contexts (Mutt's contexts) and intuitively false in another (Jeff's contexts).

The first thing to be noted here is that 'intuitively true' does not mean 'true'²⁸. Either Mutt or Jeff might simply be wrong when assenting or dissenting to (8). No argument excluding that possibility has been provided. However, we do not have to go that far and directly oppose the verdict of uncritical intuition. Let us take a closer look at the situation described. We assume that Mutt and Jeff attribute to Odile the same behavioural dispositions. This obviously applies also to all her recognitional dispositions. So, among other things, they both know that Odile would not recognize a person addressed as 'Mark Twain' as a person visible in this particular picture; they know that she would recognize Mark Twain as the person referred to as 'Mark Twain' and that she would not recognize Mark Twain as a person visible in the picture (she would plainly dissent to 'This [the speaker points at the picture] is Mark Twain'). These dispositions and (in)dispositions are indirectly related to belief attribution expressed by (8): two persons that agree about the fact that someone has them might still disagree about their relevance in determining if someone believes something. This difference might have at least two general sources. It might be the result of assuming that due to certain peculiarities of the situation, one piece of evidence cannot be trusted (or at least is less reliable). Odile might be insincere or her incapability to recognize Mark Twain in a certain picture makes some of her assertions very bad indicators of particular beliefs. It might be also the result of the fact that certain kinds of evidence are treated (generally or in particular cases) as stronger belief indicators than others (nonlinguistic belief

²⁸ Strictly speaking, the example stresses behavioural aspects of Odile's state as well as shared beliefs of Mutt and Jeff. It completely ignores Odile's actual belief state: Both Jeff and Mutt might be wrong if Odile is insincere.

indicators included²⁹). This might happen, for instance, if one thinks that a positive answer to the question “Is p ?” is always (or on some particular occasion) a better belief-that- p indicator than any answer to the question “Is q ?”, including situations where p and q are *distinct sentences* expressing a *single proposition*. Or it may happen that Jeff is assenting to (8) because he ignores (possibly temporarily) the relevance of Odile’s answer to ‘Is Mark Twain dead?’ (Mutt, on the other hand, takes this answer to be significant). Which of these situations concern the case described in Richard’s example depends on how one precisely settles its relevant features. I think (although I am far from being certain here) that it is the second interpretation that fits the example best. However, the point I want to make does not depend on any particular decision on that issue; I simply want to stress that invariantism regarding belief reports (which assumes that the belief predicate is a theoretical term) has resources to deal with attributions like (8). It is only necessary to stress that there are several differences between Mutt and Jeff that might be used to explain their distinct reactions to (8). We need only to assume that ‘intuitive assessment’ of the truth value of (8) in the two situations is nothing more than the correctness of the avowals of Mutt and Jeff. For all we know, they are both *justified* in assenting and dissenting to (8), given their different preferences regarding the import of particular belief indicators. The situation here is, then, analogous to the one described by Marcus: we have warranted assertability of a sentence (and its contradictory counterpart) in two different situations. In neither of the two cases do we have reasons to think that this results in a different distribution of what is said.

Among the merits of the hidden indexical approach that are highlighted in the literature, it is often noted that it allows us to have, within a single theory, *semantic innocence*, *direct reference*, and an explanation of the *substitution failure* (in attitude contexts). If one thinks that an adequate theory of belief reports must meet all three demands, then she must expect the same of belief invariantism. There is clearly no conflict between the view just presented and the first two demands. How about the third one? Here, the situation looks more problematic: invariantism (which meets the two previous demands) has no resources to explain the fact that, for instance, (8) might be true and (9)—‘Odile believes that Samuel Clemens is dead’—is intuitively false (given certain specific settings involving Odile). Without attempting to solve this problem, I just want to note that invariantism predicts that when moving from (8) to (9), we might not preserve warranted assertability (since evidence supporting (8) might be outweighed by the evidence supporting the negation of (9)). However, I am far from claiming that this explains our intuition regarding substitution failure.

Where does that leave us? I think that all three options sketched out above deserve further investigation. I do not have, at the present moment, an *argumentum crucis* that would show the superiority of one over the others. This, however, does not have to worry us substantially. Where there is choice, there is room for further philosophical investigations. If there is room for further philosophical investigations, there is hope that we will disentangle the web of belief reports.

²⁹ As Ruth Barcan Marcus puts this: “(...) on a broader view, other actions might belie the agent’s words, and sincere assent might not be the privileged marker of believing” (Marcus 1993, p. 246). Some authors (cf. Grabarczyk 2016, p. 19) even suggest that the expectations of the attributor regarding the behaviours typical of particular beliefs may give rise to two distinct concepts of belief.

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