Lyrical Texts as a Data Source for Linguistics

Abstract

In this paper we present arguments in order to make the general methodological point that linguistics, especially semantics, should explore lyrical texts as a data source. We show that a number of theoretical implications for linguistics emerge from the analysis of poetic texts. We claim that lyrical texts are in fact especially valuable for investigations in semantics for two reasons. First, the high density of creative uses of language by a language expert reveals the whole potential of language. Second, the lack of context creates a special communicative situation that makes poetry especially fit for investigations of grammar. We illustrate this by discussing the value of lyrical texts for studying coercion phenomena and referential expressions. We argue that lyrical texts follow the rules of UG by showing similarities with other types of data that have proven to be very fruitful for linguistic research. Accordingly, we thus propose that they should be considered more seriously as data for investigations of grammar, especially at the semantics-pragmatics interface.

Semantics, Poetry, Coercion, Reference, Methodology

1. Introduction

In recent decades, linguistic research has broadened the range of evidence to consider for the development of the theory of grammar. In addition to looking at introspective data in order to investigate our knowledge of language, linguists work with e.g. experimental, cross-linguistic, diachronic or corpus data. This practice is now widely accepted. In this paper we argue that lyrical texts can supplement the above list, to great advantage for linguistics.

The paper is distilled from a series of concrete textual analyses which are part of a larger research enterprise (Bauer & Beck 2009, Bauer et al. 2010, Bauer et al. 2015). One goal of this enterprise is to show that literary scholarship can benefit from a detailed linguistic analysis of a poetic text. A second goal is pointing out the value poetic texts have for linguistic theory. In this paper, we present a condensed version of our arguments in order to make the general methodological point that linguistics, especially semantics, should explore lyrical texts as a data source. We show that a number of theoretical implications for linguistics with regard to, for example, the limits of using context-dependent structures emerge from the analysis of poetic texts. Our argumentation proceeds as follows. In section two, we refute the commonly found position that poems are not good data because they are not normal or ordinary language. We claim that - like other data used for linguistic research - they display systematic deviances from ordinary language which are revealing with regard to the structure of grammar in general, but also with regard to questions surrounding certain phenomena at the semantic-pragmatics interface.

In section three of the paper, we will substantiate this claim by explaining why lyrical texts are actually especially valuable data, because of certain properties of the text type. They create a special communicative situation and are written by a special native speaker, the poet. Both facts make the text type very fit for investigations of grammar.

The points we want to make in section three are stated in the proposals P1 and P2 below.

- (P1) The high density of creative uses of language by a language expert reveals the whole potential of language.
- (P2) The lack of context creates a special communicative situation that makes poetry especially fit for investigations of grammar.

We will exemplify the special value lyrical texts have for linguistic theory in the second part of section three by discussing two areas of linguistic research where the investigation of lyrical texts gives crucial input for the theory. The first area that illustrates this is coercion. Here, the creative use of language by the poet reveals additional interpretative possibilities language allows for. The second area we look at are anaphoric referential expressions and the influence of the text type on how their interpretation proceeds.

The two illustrations of our more general proposals P1 and P2 are the example types in E1 and E2 below.

- (E1) Coercion
- (E2) Referential expressions

Based on our findings, we want to make the larger and more general point that lyrical texts should be considered more seriously as data in linguistics, especially formal semantics and pragmatics in section four of the paper. We would like to propose that including these data more substantially into linguistic research offers interesting new perspectives on phenomena at the semantics-pragmatics interface, but also into the structure of grammar more generally. We demonstrate that the rules of composition and core properties of Universal Grammar do hold in lyrical texts: First, by showing similarities with other types of data where these rules are preserved and that have been proven very fruitful for these investigations. Second, by showing what rules are not violated and what types of interpretations are impossible even in poetry. The proposal we want to defend in the last section of this paper is stated in P3 below.

(P3) Lyrical texts follow the rules of UG.

We defend the position that the systematic deviances we see in lyrical texts due to the special properties they possess do not exclude them from the set of data that are interesting for linguistics but make them especially valuable data. They can show us which parts are more flexible and which parts are core parts of the grammar.

We conclude that the investigation of lyrical texts should enrich the range of empirical methods used for the study of the grammar of human language.

2. Validity: Lyrical texts don't do things language can't do

In this section, we present our claim that lyrical texts are an interesting set of data to be considered for linguistics since the language used therein reveals an interesting variety of the grammar of everyday language. We refute commonly found arguments against using poetic texts as data in subsection 2.1. We lay out our position in section 2.2.

2.1. What might be problematic about lyrical texts as evidence

There is a commonly held opinion that poems and literary texts in general are not data that are useful for the investigation of the grammar of the language the poem is written in (Fries 1952; Thorne 1965; Labov 1972). This opinion is based on a tradition that sets "poetic language strikingly apart from logical, scientific, historical language" (Miles 1940). It is treated as something "different from generated language" (Fabb 2010: 7). The distinction between poetic and non-poetic language follows from the assumption that the former is not derived from the latter and therefore does not share its grammatical features. Hence, it has been argued that sentences like (1) below taken from Emily Dickinson's "My life had stood a loaded gun" 1 "resist inclusion in a grammar of English" and that "it might prove more illuminating to regard [them] as a sample of a different language" (Thorne 1965: 51).

(1) My life had stood -- a loaded gun -- in corners

Even though the position and tradition that lyrical texts are not appropriate data to analyse for investigations of grammar has not been defended much in recent literature is has led to a lack of research in formal semantics and pragmatics that makes use of this type of data. However, data of this sort find some representation in investigations on syntactic (Petzell & Hellberg 2014) as well as phonological and phonetic features of language (Hayes 1988, Hayes 1989; Kiparsky 2006; Fabb & Halle 2008). We argue that the lack of research in the fields of semantics and pragmatics leaves gaps that ought to be filled in order to arrive at an appropriate model of grammar which describes accurately its variable and fixed points. We show that especially research at the semantics-pragmatics interface benefits from the discussion of literary texts. It is obvious that (1) does not obey all the rules and constraints of Present Day English (PDE). There is thus a genuine question here of how the utterance in (1) relates to G, the grammar of PDE. At the same time, even (1) is still recognizably English. It is implausible that a poem is completely unrelated to the language of its intended readership. Without any prior knowledge of the core grammar, as, for example, rules of composition and grammatical features of certain words, a reader whose linguistic knowledge amounts to G would not understand anything when first reading a poem. The reader would have to reconstruct its grammar based on the little text sample s/he has, the poem itself. As a consequence, this position would predict that it is tremendously difficult if not impossible to retract meaning from a poem. It is, however, possible to interpret (1) with the rules of grammar. Interpretation requires syntactic reanalysis and semantic reinterpretation, but the mechanisms used are systematic and generally available as part of our grammatical knowledge. Applying them leads to a limited number of plausible non-arbitrary interpretations. For an illustration of this claim we refer to Bauer et al. (2015) that provides a detailed analysis of the structure in (1) and the whole poem it stems from. We will also return to this example and how it strengthens our point that poems are a part of our grammar when discussing coercion processes below.

The position we adopt assumes that poetic language is developed from the rules and constraints of non-poetic language (Kuhns 1972; Fabb 2010). Under this view, poems

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¹All quotations from Dickinson's poems come from Johnson (1960). Complete versions of all poems cited in this paper can be found in the appendix.

can be seen as departing from the grammatical structures of a language in particular, systematic and limited ways. Because of our knowledge of G which includes knowledge of word meaning, of syntax and of rules of composition (e.g. Heim & Kratzer 1998) we can perceive what these departures are, and we are able to interpret the texts. This knowledge is implicit but is manifested in the ability to judge certain structures as grammatically acceptable and reject others. Our position is developed below. Our line of investigation is innovative but not completely isolated from current research. It is related to investigations on the impact of iconic features on interpretation as pursued, for example, by the Iconicity Research Project (Ljungberg 2001; Fischer 2011). Moreover, literary (narrative) texts have recently been exploited as a data source for studying speaker oriented indexicals (Eckardt 2012).

2.2. Our position

We argue that, due to its special features, studying poetic language can be revealing with regard to the question of how grammar is structured. Studying the systematic deviations we find in lyrical texts can help us distinguish between universal properties and language specific properties of grammar. It can also reveal which components of a given grammar are flexible (e.g. because they are context-dependent) and which are more stable (because they are part of the core grammar). It is thus a text type which is especially well suited to investigate phenomena at the semantics-pragmatics interface. We want to defend this position by giving two examples of how the special properties lyrical texts possess make them especially valuable data for investigations at the semantics-pragmatics interface in the next section.

First, we discuss the feature of the text type, both in terms of properties of the text itself and special properties of the native speaker who produced them: the poet. Then we lay out how studying poetic text can enrich linguistic theory by discussing two examples: coercion and reference in poetry.

3. Special value for semantics and pragmatics: lyrical texts constitute particularly interesting evidence (P1 and P2)

In this section we argue that lyrical texts should supplement other data types that reveal linguistic dynamics, like acquisition and change. First, we argue in general terms that both the poet as a special kind of native speaker and the poem as a special kind of utterance merit our interest in section 3.1. On the one hand, the creative use of language by an expert of grammar makes its limits and flexibility visible in special ways (P1). On the other hand, the lack of context in poems creates a special discourse situation which makes them especially fit for investigations at the semantics-pragmatics interface (P2).

To flesh out the general points made, we give examples of linguistic knowledge gained by a close linguistic investigation of lyrical texts in section 3.2.. These examples illustrate the point we make on creativity (coercion, E1) as well as the semantics-pragmatics interface (referential expressions, E2). We summarize our findings in 3.3.

3.1. General considerations

Let us consider in more detail the specifics of our data source lyrical texts. We first look more closely at its author, the poet, and second, at the text type poem.

3.1.1. P1: The poet. It is, we believe, relevant to the present discussion that the texts we investigate are not, after all, errors of language learners or any casual type of corpus evidence produced by randomly picked native speakers of a given language (we will abstractly speak about L1, the language the poem is written in and its grammar, G). Quite to the contrary: the poet should be considered a language expert, and the text was produced with great care. Deviant linguistic structures are produced consciously to yield specific effects. In many cases, a poet reveals through her or his work that s/he is engaged in an intuitive linguistic analysis of L1 in order to achieve these effects. An example of this engagement is given in (2) where an important feature of modals is exploited to yield a specific interpretation (Dickinson's "My life had stood"):

(2) Though I than He – may longer live He longer must – than I –

The structure considered for the sentence in (2) is given in (3) below, where word order is adjusted and the ellipsis filled for ease of comprehension (for a detailed analysis of this example and the whole poem see Bauer et al. 2015).

(3) [S [subord though I may live longer than he] [matrix he must live longer than I]]

In a standard analysis modals are seen as quantifiers over possible worlds or situations (Kratzer 1991; Heim & Von Fintel 2010). A corresponding semantic representation of the subordinate clause in (3) plus paraphrase is given in (4).

(4) ∃w[R(@,w) & Lifespan(w)('I')>Lifespan(w)('he')] = there is a relevant possible situation in which my lifespan exceeds his. = it is possible that I live longer than he.

The modal force of a possibility modal like *may* is existential, i.e. it claims the existence of a possible world/situation where *I* live longer than *he*. It is further assumed that a modal like *may* is semantically underspecified, which is due to the flexibility of the relation R. R is the accessibility relation between possible worlds and the actual world. It tells us which worlds are relevant for us to consider. This could be worlds compatible with the law (deontic reading), or worlds compatible with what we know (epistemic reading), or worlds compatible with the facts (circumstantial reading), or worlds compatible with that we desire (bouletic reading) in the actual world (Kratzer 1991).

The matrix clause is analysed below in a parallel way. A necessity modal like *must* has universal force, i.e. for all worlds that stand in a certain relation to the actual world (defined via R) a specific fact holds, in this case that *he* lives longer than *I*:

(5) ∀w[R(@,w) -> Lifespan(w)(he)>Lifespan(w)(I)] = all relevant situations are such that his lifespan exceeds mine.

= it is necessary that he live longer than I.

It is important to note that if the relation R that picks out the relevant worlds is the same for the two modals may and must, we get a contradiction: it is not possible that all relevant worlds are such that 'he lives longer than I live' and that there is a relevant world where 'I live longer than he lives'. However, the sentence becomes non-contradictory if we suppose different accessibility relations for may and must. For example, there is a world in accordance with the natural facts where 'I live longer than he', but all worlds that are consistent with my wishes are such that 'he lives longer than I'. That is, when we assume a circumstantial reading of may and a bouletic reading of must (Kratzer 1991). Emily Dickinson's use of modals in this example shows that she is sensitive to the inherent context-dependency modals possess. She uses this context-dependency to make the reader pick two different accessibility relations for the modals. The example inarguably follows the rules of the grammar of L (G). The reader is able to compositionally interpret the sentence and intuitively knows how to interpret modals. However, it is not specified how (s)he should resolve the underdeterminacy that is created through this specific use of modality. The reader is hence forced to reflect on the decisions (s)he made in interpretation so far in order to arrive at a coherent text interpretation. That is, Emily Dickinson uses local underspecification to achieve a specific pragmatic effect. She makes the reader aware of a global textual ambiguity important for the understanding of the poem. Moreover, the reader is forced to reflect on the different possibilities (s)he has at her disposal when interpreting may and must. More evidence for the fact that Emily Dickinson uses grammatical structures like these systematically to increase reflection about features of language, especially the interrelation between local and global interpretative decisions, come from several detailed analyses of her poems and the structures she uses (Bauer & Beck 2009; Bauer et al. 2010; Bauer et al. 2015).² The poet demonstrates a very high degree of linguistic awareness, and sensitivity to properties of G beyond that of the average speaker. All features, even the non-targetlike features of the poem, are not accidental but deliberate. They are supposed to be decoded by speakers with G as their linguistic knowledge. When studying knowledge of a language, the poet should thus be an especially interesting subject. This is summarized in our proposal P1, repeated below:

(P1) The high density of creative uses of language by a language expert reveal the whole potential of language.

3.1.2. P2: The poem. Properties of poems that are relevant to the present discussion include that they are short, dense texts presented without immediate linguistic context surrounding it. The data thus specifically tell us something about the nature of context-dependency and how the meaning of context-dependent expressions should be modeled.

In ordinary linguistic interaction, the participants share a common ground (cf. e.g. Stalnaker 1974; Kadmon 2001). The common ground locates speaker and hearer and guides assumptions they make about context dependent expressions in language. By contrast, when reading a lyrical text there is no common ground that we can rely on when interpreting. This is due to the fact that the communicative situation that the poet was in when writing the poem is completely detached from the situation in which

² These findings are to be collected in a monograph (Beck et al. [in prep.]).

the reader is experiencing the poem. When reading a poem there is no speaker to be challenged or asked for background information.³

The beginning of the poem "I'm ceded -- I've stopped being Their's - " by Emily Dickinson given in (6) is exemplary of how the lack of context makes it impossible for the reader to fully interpret and resolve all structures in a way that he or she is used to.

(6) I'm ceded – I've stopped being Their's –

First, it is unclear who the pronouns in the poem refer to. The reader has no information on who the speaker of the poem might be nor who *they* are. Furthermore, the presupposition of the sentences that there is a relevant time in the past when the speaker used to be theirs cannot be verified. The presupposition of the sentence is encoded in the lexical entry of *stop*, which is given in (7) below.

(7) [[Stop]](p)(t) is only defined if there was a t' < t such that p(t') = 1. If defined it is true when p(t) = 0, false otherwise.

The presupposition of (6) according to this lexical entry is given in (8).

(8) [[Stop]]([[I being theirs₄]])(t) is only defined if there was a t'<t such that g(4) possess the speaker at t'. If defined, it is true when it is not the case that g(4) possess the speaker at t.

Interpretation of the sentence is hence complicated by the special use of reference. Complexity is added through the underspecification of the genitive *their's*. It might either express possession but also some other relation, maybe kinship. Without surrounding context and knowledge about the referents it is almost impossible to decide. The first line of this poem already illustrates the density of the text sort with regard to interesting phenomena at the semantics-pragmatics interface. In ordinary discourse this level of complexity would certainly lead to rejection of the sentence by the hearer. However, the special discourse situation allows the reader to infer that this complexity might be used to achieve a specific global discourse effect. This makes it more likely that s/he will continue reading.

It will be described in detail in subsection 3.2.2. how the interpretation of context-dependent expressions proceeds in poetry and can be modeled within our system of grammar.

Lyrical texts give additional insight into phenomena that lie at the semantics-pragmatics interface due to the special communicative situation they create. They reveal what grammatical rules can be bent or even ignored without resulting in rejection by the reader. Poetic texts specifically tell us something about the distinction between world and contextual knowledge on the one hand and linguistic knowledge on the other. In addition, lots of interesting linguistic phenomena occur in a relatively small and manageable set of data. The phenomena can be studied in their interaction instead of in isolation. These factors combine to suggest that a linguistic analysis of lyrical texts should be especially rewarding. This is summarized as our proposal P2, repeated below:

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³ Even if information about the context the poem was written in can be retrieved, it remains unclear whether this information is even relevant for the message of the poem. We assume that all the relevant information for the reader must be given *within* the poem.

(P2) The lack of context creates a special communicative situation that makes poetry especially fit for investigations of grammar.

3.2. Illustrations of P1 and P2: coercion (E1) and referential expressions (E2)

We substantiate the programmatic claims above about the special value of lyrical texts as a data source by giving two concrete examples. The examples further illustrate for which investigations specifically lyrical texts are well suited due to the special features of poetic language discussed above. We claim that the circumstances under which poetic texts are interpreted give insights into the nature of phenomena of grammar that are not revealed by just looking at everyday language.

3.2.1. Creative use of language by the poet: coercion (E1). We argue that lyrical texts are based on ordinary language but drive the use of its flexible aspects to a limit. They show what is fixed by the grammar and what is subject to dynamic change. Accordingly, the first example relates especially to the point we made about linguistic creativity and language dynamics (P1). We pick an example of an adaptive mechanism of language which has received a lot of attention in the linguistic literature, coercion. We will show that our examples of figurative language usually resolved by coercion clarify certain linguistic theories that exist on this mechanism. Through the special discourse situation created by lyrical texts and the creative language used therein, our data shed a new light on what type of conflicts trigger coercion and in how far the grammar restricts which parts of the structure are reinterpreted and how. Our examples show what the linguistic and extra-linguistic factors are that promote coercion processes. We will see that

- (i) conflicts are resolved locally according to the principle of interpretability.
- (ii) both component parts can be reinterpreted, functor as well as argument.
- (iii) world knowledge constrains typical interpretations of examples in ordinary contexts.

The full range of grammatically available interpretative options is revealed by lyrical texts where world knowledge can be suspended locally.

Coercion is an adjustment operation that is triggered when semantic mismatches occur and strictly speaking ungrammatical structures are produced (De Swaart 2011). Mismatches occur either due to semantic type mismatches or due to violations of sortal restrictions of a predicate. In their repair, contextual information interacts with what is given by the grammar. What exactly influences this adjustment operation and at which level of computation it happens is controversial. Some theories see it as a more global repair mechanism that works on a defective semantic structure (Nunberg 1995; Lang & Maienborn 2011). Other theories assume that the coercion process is already encoded in the lexical entry of expressions, either via their so called qualia structures (Pustejovsky 1995) or their complex types (Asher 2011). The different theories make different assumptions about the division of labour between the lexicon and the context. Furthermore, there is a lack of empirical ground for how to theoretically distinguish between different types of coercion mechanisms based on, for example, the integration of context.

We suggest that the debate suffers from the fact that expressions often taken as

standard examples for coercion processes already seem to be conventionalized and are operative in only very specific contextual settings. The metonymy⁴ in (9) below that is often discussed as a case of coercion in the literature illustrates this.

(9) The cappuccino wants to pay.

The coercion mechanism is triggered by the selectional restrictions of the predicate which require the external argument to be volitional. This is shown in (10a). The subject clearly does not meet this criterion which results in an undefined structure (illustrated in 10b). The mechanism that "repairs" this mismatch can be described as a predicate transfer (Nunberg 1995) from cappuccinos to people who drink them. This can be modeled as a silent function that maps beverages onto their consumers (10c). Adding this function to the formal representation will make it interpretable, as can be seen in (10d).

- (10) a. $[[want]]^w(p)(x)$ is only defined if x is volitional. If defined, $[[want]]^w(p)(x) = 1$ if for all worlds w' such that x's wishes in w are true in w': p(w') = 1, 0 otherwise.
 - b. [[wants to pay]]([[The cappuccino]]) is undefined.
 - c. f: $x \rightarrow$ the person consuming x
 - d. [[wants to pay]](f([[The cappuccino]]) = 1 iff for all worlds w' such that the wishes of the person consuming the cappuccino in w are true in w': The person consuming the cappuccino pays in w'.

It is fairly easy to define f for specific cases, for example inside a well established contextual framing like the one created by (9). It is, however, still controversial what exactly triggers and influences (re)interpretation in general. Existing theories aim to establish the system behind what mechanism is triggered for which type of conflict. A crucial factor is the division of labour between the lexicon and context.

Examples taken from poetry are valuable for the investigation of coercion and other reinterpretation processes, since they often display non-conventional, creative uses of figurative language. They reveal what influences and drives the reinterpretation process apart from convention and context and thereby makes visible the full range of interpretative possibilities. This shall be shown with concrete examples in the following.

Below is an example of a violation of selectional restrictions of the predicate in a poem from Emily Dickinson ("My life had stood – a Loaded Gun").

(11) My Life had stood – a Loaded Gun – In Corners – till a Day

There is a mismatch in this example between *my life* and *stand in corners*. The mismatch is due to the denotation of the verb *stand*. It expresses a relation between an individual and a location, with a requirement for the individual argument to be a physical object with vertical dimension. The second meaning component is introduced into the lexical meaning via a presupposition:

⁴ The issue of the role of context versus the role of the lexicon discussed here for metonymy eventually arise for other tropes, metapors, personifications etc. Additional factors might play a role in these cases. We exemplify our point for metonymy and must leave the investigation of other rhetorical figures for further research.

(12) $[[stand]] = [\lambda e.\lambda x.\lambda y: y \text{ is a physical object that has a vertical dimension.} y \text{ is in location x in e and y is vertically oriented in e}]$

The subject my life is not an appropriate individual argument for this verb since it is not in the verb's interpretation domain, as illustrated in (13).

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(13) a. [[NP]] ∉ dom ([[V]])b. [[stand]]([[my life]]) is undefined.
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In order to assign a meaning to the matrix clause, we either have to reinterpret the Verb Phrase (VP) or the subject or both at the same time. A possible reinterpretation of the VP 'stand in corners' which resolves the mismatch would be 'remain unnoticed, neglected'. It can be considered to be almost conventional. Another possibility is to reinterpret the NP *My life* as *I*, and this reinterpretation could happen via an implicit transfer function of type <e,e> (Nunberg 1995) that maps the life of an individual to the individual:

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(14) f(life\_of\_x) = x (NP reinterpretation)
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Taking these possibilities into consideration, we get the following readings:

- (15) a. I stood around in corners. (NP reinterpretation)
 - b. My life remained unnoticed. (VP reinterpretation)
 - c. I was neglected. (NP/VP reinterpretation)

All three readings are valid options in the context of the poem "My life had stood a loaded gun" where it remains unclear throughout the poem whether a gun or a human is the speaker.⁵ The example shows that it is not dictated by the lexicon and syntax alone which part of the structure has to be reinterpreted. We can either reinterpret the predicate or its argument and also both. The last possibility is the most surprising from the viewpoint of most current theories on coercion which assume that only local conflicts are the trigger of coercion processes. At the same time the option is a very prominent one in the context of the poem. Since reinterpreting either the predicate or the argument would be sufficient to resolve the local conflict it is unclear under existing theories why the option to reinterpret both parts of the structure should be available. It seems to be a question of contextual pressure to reinterpret as in (15c) which poses a challenge to current theories and asks for an appropriate modification of said theories which captures this observation.

A similar reinterpretation process is triggered in the example in (16), also taken from Emily Dickinson's "My life had stood".

(16) And every time I speak for Him – The Mountains straight reply –

Due to the requirement that *reply* needs a human agent as its subject argument (illustrated in (17a)), a conflict arises (illustrated in (17b)) when *reply* combines with

⁵ Either of these two global options favour different reinterpretations for (31). For a detailed analysis of the poem which shows this see Bauer et al. (2015).

the mountains which are clearly not human. This conflict allows for different types of reinterpretative possibilities.

(17) a. $[[reply]] = \lambda x$: x is human. x replies. b. [[reply]]([[the mountains]]) is undefined.

The first option is that *reply* is reinterpreted as something that fits an inanimate agent like *the Mountains*. In the immediate context where it is set parallel to a human being making sounds, a likely interpretation is one where *reply* stands for the production of an echo. This option is illustrated in (18a) and (18b). The lexical entry of the mountains remains stable.

- (18) a. $[[reply]] = \lambda x.x$ produces an imitative sound
 - b. [[reply]]([[the mountains]]) = The mountains produce an imitative sound

There is a second option where *the mountains* are considered to have human properties and hence really *reply*. This option requires that we suspend our conceptual knowledge about *the mountains*. This makes *the mountains* a suitable argument for *reply*.

- (19) a. $[[reply]] = \lambda x$: x is human. x replies.
 - b. [[reply]]([[the mountains]]) = The mountains reply.

Both options are available in the context of a poem, whereas in an ordinary discourse situation the second one would be inconsistent with our world knowledge and consequently be dismissed. This again stresses the importance of context for the ways to resolve the conflict in ordinary discourse. Lyrical examples exhibit the full range of reinterpretive possibilities allowed by the grammar.

The two examples just discussed show that the direction of coercion is not fixed. The reinterpretation of both the argument and the functor is possible (as well as both). This speaks against a *Head Typing Principle* as formulated by Asher (2011), which predicts that the argument is always coerced into a type that fulfills the requirements of the head. A simplified version is given in (20).

(20)

Head Typing Principle:

If X is a constituent with daughters α and β , (and X is uninterpretable) and α is the syntactic, lexical head, then the typing/interpretive frame of α must be preserved in the composition of α and β

This prediction is falsified by the examples just explained. It would mean that the interpretation of the verbs which are the heads in these structures had to remain stable in (11) and (16). This would only allow for an interpretation of (11) where *my life* is reinterpreted as "I" (the speaker) and for an interpretation of (16) where *the mountains* receive a different interpretation (as being human). It is, however, crucial for both cases that all interpretative options remain available in the poem. The arguments for why it is plausible to assume that they are available can be found in the detailed analyses of the complete poems (cf. Bauer et al. 2015). It is hence clearly not just a question of the lexicon and the structure (what the head of a phrase is) what

mechanism of resolution is chosen. Our data reveal the whole range of interpretative possibilities. We see that examples from ordinary contexts are usually constrained by our knowledge of the situation and the context. Through the lack of context in poetry, we find the whole potential of grammar revealed.

Another example where the importance of intermingling options of reinterpretation becomes evident is (21), taken from a poem by John Donne. A plausible interpretation for *batter my heart* is one where both argument and head are reinterpreted (cf. Bauer & Beck 2009).

(21) Batter my heart, three person'd God; for, you
As yet, but knock, breathe, shine, and seeke to mend [...] (Stringer 2005: 25)

The need for reinterpretation is due to a conflict between the selectional restriction of *batter* as one can see in the lexical entry in (22) and the meaning of *heart* (23a).

(22) [[batter]] = $\lambda x.\lambda y$: x is a solid object.y batters x.

When assuming a literal meaning of both *heart* and *batter* we arrive at a violent and — within the context of the poem — implausible interpretation of the structure. The scenario described would remind of a horror movie. *Heart* is better understood as the emotional centre of the speaker in (21) which will make a combination with *batter* in (22) undefined since emotions cannot be considered a solid object. This can be seen in (23a) and (23b).

(23) a. $[[heart]] = \lambda x$. x is an emotion b. [[batter]]([[my heart]]) is undefined

(24a) and (24b).

- The conflict can be resolved when reinterpreting *batter* as well, as affecting something in a violent manner. This is illustrated in
- (24) a. [[batter]] = $\lambda x.\lambda y.$ y affects x (in a violent manner).
 - b. [[batter]]([[my heart]]) = 1 iff the speakers emotions are affected in a violent manner

In this case, the conflict only arises because it is contextually more salient to assume a metaphorical meaning of *heart*. Reinterpreting *heart* is thus not a question of local conflict but contextual pressure. Again, this example also speaks against it being a question of grammar which part of structure remains semantically stable in reinterpretation. The example shows that sometimes it is necessary to reinterpret both parts of a structure at the same time. It moreover demonstrates that it might not just be the lexicon that is responsible for the arising of a conflict which requires reinterpretation. It is the context that forces a certain interpretation of *heart* and the resulting conflict.

The data combined speak against an approach to coercion which assumes that the lexicon and the structure alone influence certain reinterpretation processes. Contextual pressure is an important factor for why and how to reinterpret.

This seems to be the case for both reinterpretation strategies discussed, inserting a transfer function and shifting verb meanings.

Of course, opening the theories of coercion to capture the possibility of reinterpreting

both parts of the structure as well as allowing contextual pressure to trigger conflicts, has the danger of forming a theory which is too unrestrictive. Without any limits to inserting a transfer function which changes the referents or shifting the meaning of the verb we might expect the grammar to allow shifts and reinterpretations as in (25a) and (25b), which would lead to a completely arbitrary and impossible interpretation of (25):

(25) Charlotte smiled.
a. f[[Charlotte]] = Hans
b. [[smile]] = λx. x smiles → λy. y snores.
c. [[Charlotte smiles]] = Hans snores.

Our examples show that existing theories of coercion should allow for more flexibility in two ways. First, they must allow the functor as well as the argument to be reinterpreted. And second, the driving force of reinterpretation must not be limited to uninterpretability as such.

However, we do not want said theories to end up predicting arbitrary reinterpretations as in (25c). The revised theory should be able to identify pathways of reinterpretation. More research is needed to spell this revised theory out fully. However, here is a first approximation to what we have in mind. We find recurring patterns of what types of reinterpretation strategies we pursue in interpretation. One that we mention is inserting a transfer function f which will change the referents of a sentence, e.g. the cappuccino to its drinker, the life to its owner. We thus find that there must be a contextually well-defined and close relation between the referents which also has some generality to it, e.g. ownership. A specialized function like in (25a) which just changes one individual to another is disallowed it seems. Furthermore, the examples from poetry show that we must have good reasons to change the referent if no local conflict is involved, e.g. changing "my life" to "I" is allowed in the context of a poem where a gun could be a speaker, making it implausible to talk about a "life" in the direct sense. In a similar manner, it is clear that the speaker in "Batter my heart" is not a patient talking to his doctor about an actual organ, his heart. The speaker is addressing God which makes it far more likely that s/he is talking about his/her emotions. In sum, we observe that fixing the referents – which is a more complex process in poetry as the next section will also show – might be defining for when the grammar allows us to reinterpret (especially when we don't find a conflict arising from, for example, a selectional restriction). A second type of reinterpretation mechanism we discussed is shifting the meaning of certain verbs. The mechanism we find is one where the meaning of the verb becomes weaker and less restrictive in the sense that certain presuppositions are dropped so that the domain set of verbs is widened. For example, reply is shifted to a meaning like "make an imitative sound" which will include non-human agents. More research in linguistics is needed to identify in how far grammar restricts why and how we reinterpret and what the division of labour is between the lexicon and the context. We argue that looking at more data from lyrical texts helps forming a theory of coercion which isolates the grammatical factors involved.

3.2.2. Summary -P1 -E1. The first proposal we argued for in the last sections was that the high density of lyrical texts reveal the whole potential of language (P1). We have shown that the grammar allows for more interpretative possibilities than what we observe for ordinary examples. Most importantly, we found that both component parts

in structures with semantic mismatches can be reinterpreted and even both at the same time. Furthermore, we saw that contextual pressure might be responsible for the arising of a conflict. Conflicts are still resolved locally according to the principle of interpretability. We need a refined theory of coercion which captures these observations and more data to further support our findings. So far, our data allow the following revision of P1:

- (P1') Creative uses of language in poetry reveal the whole potential of language. A large range of the reinterpretive possibilities that the grammar allows for is laid open. The driving force of reinterpretation is not limited to plain uninterpretability; the direction and pathways of reinterpretation are not fixed (*contra* standard coercion theories).
- 3.2.3. Context dependency in a dynamic semantics: referential expressions (E2) The second feature of poems we discussed above is that they are written by language experts but are read by ordinary native speakers in a communicative situation completely detached from the original one the poem was written in (P2). Consequently, the second example explores the role of context in the interpretation of pronouns as it is highlighted in lyrical texts by its lack. Our findings raise interesting questions for the influence of situations on the interpretation process as a whole. We will see that
 - (i) a genuinely dynamic interpretation is possible.
 - (ii) the text type and discourse situation may decide between static and dynamic interpretation, or, more accurately, between the increment size that is applied to a particular context.

Both times the evidence provided by lyrical texts hence has an impact on linguistic theory, specifically, different aspects of the semantics-pragmatics interface.

Anaphoric expressions like pronouns or certain presupposition triggers pose similarly pressing questions for linguistic theory as the coercion phenomena described in the previous section. These questions also revolve around the nature of context-dependency, the division of labour between semantics and pragmatics and how this division should be implemented into the theory. Poems are interesting data for plausible approaches to these questions, since they once again show which principles of the grammar are flexible and which are not.

In a standard analysis, pronouns impose strong requirements on the context. An utterance like (26) is only appropriate in a context that furnishes a referent for the pronoun. This can be captured formally as in (27), (28) (compare e.g. Heim & Kratzer 1998).

- (26) He sneezed.
- (27) $[[he_1]]^{gc}$ is only defined if $g_c(1)$ is defined. Then, $[[he_1]]^{gc} = g_c(1)$. (where g_c is the variable assignment function provided by context c.)
- (28) $[[He_1 \text{ sneezed}]]^{gc}$ is only appropriate if $g_c(1)$ is defined. Then, $[[He_1 \text{ sneezed}]]^{gc} = 1$ iff $g_c(1)$ sneezed.

In a standard static framework, compositional interpretation will fail when these

requirements are not fulfilled by the context. Accordingly, if A utters the sentence in (26) out of the blue a 'Hey wait a minute'-effect/challenge will be evoked, as indicated by the answer of B (Von Fintel 2004; Matthewson 2006). The assumption therefore is that checking the context for relevant information happens right away. If no relevant referent is available sentences will be uninterpretable in the context and challenged by the interlocutors.

(29) A: He sneezed.
B: What? I don't know who you mean by "he".

Poems behave differently in this respect. The use of pronouns without a referent or antecedent is extremely common in poetry. Very often they appear right at the beginning of a poem (here, in a poem by Dickinson, "He fumbles at your soul"):

(30) He fumbles at your Soul

Rather than taking these expressions to be uninterpretable, readers continue interpreting and accumulate information. They build up a compositional interpretation of the whole text. Thus, they arrive at a text meaning and can reconstruct what the context must be like.

To model how compositional interpretation proceeds under these circumstances a dynamic model of interpretation is needed (Kamp 1981; Heim 1982). The semantic value of a sentence in a dynamic framework is not its truth conditions but its potential to modify and extend information that exists in the context.

It is possible in such a system to model that some parts of the sentence, like *he*, in (30) may remain underspecified. A first step towards a simplified version of a dynamic system that achieves this is to consider the parts of the sentence sets of variable assignment functions that are passed along as interpretation proceeds. The system is inspired by the basic ideas expressed in Montague (1970), a more recent use of which can be seen in Poesio (1996). The meaning of a pronoun in this simplified dynamic system is shown in (31); it is the set of assignment functions that assign the variable a value.

(31)
$$[[he_1]] = \lambda g.g(1).$$

Such a framework allows certain parts of meaning to remain unspecified, as for example who the referent of he in (30) is. An interpretation of (30) would thus proceed as in (32)-(35):

- (32) $[[he_1]] = \lambda g.g(1).$
- (33) [[fumble at your soul]] = λg . λx . x fumble at your soul
- (34) Dynamic Function Application (DFA): Let $\langle g \rangle$ be the type of variable assignment functions. Then: If α is a branching node with daughters β and γ and β is of type $\langle g, \langle x, y \rangle \rangle$ and γ is of type $\langle g, x \rangle$ then $[[\alpha]] = \lambda g.[[\beta]](g)([[\gamma]](g))$
- (35) $\lambda g. g(1)$ fumble-at_your_soul

To get a meaning of a text the reader retrieves information from the poem to learn more about what functions g are described. The interpretation of an additional sentence (36a), taken from Dickinson's "He fumbles at your Soul" results in (36b).

(36) a. He stuns you by degrees –
b. λg. g(1) stuns you by degrees

The rule for combining two sentences like (30) and (36a) in such a dynamic model is given in (37). Applied to our example we get (38).

- (37) $[[S1 \text{ and } S2]] = \lambda g. [[S1]](g) & [[S2]](g)$
- (38) a. He fumbles at your soul. [...] He stuns you by degrees.
 - b. $\lambda g. g(1) \text{ fumbles_at_your_soul & } g(1) \text{ stuns_you_by_degrees}$

To get the meaning of a text the reader has to iterate application of this rule, roughly illustrated in (39).

(39)
$$[[Text]] = [[S1 \text{ and } S2 \dots \text{ and } Sn]]$$

The result of interpretation is a set of assignment functions, bundling information about the referents in the poem. The application to a context happens later than in ordinary conversation, after the reader has computed the meaning of the text. Different readers may envision different contexts, i.e. collections of referents that make the text true. Due to this fact, it is expected that there is some variation w.r.t. what the final meaning of a text for an individual reader is.

Poetry is thus evidence for the fact that interpretation is a dynamic process and requires a dynamic framework (Kamp 1981; Heim 1982). It contributes to an ongoing debate on whether static frameworks are able to describe interpretation processes sufficiently (cf. e.g. Schlenker 2011 for discussion).

We have shown that a dynamic system is more appropriate for modeling how interpretation proceeds in lyrical texts. In everyday discourse the system seems to allow for less flexibility. Our data suggest that it depends on the communicative situation at which level (size of increment) the context is updated with the information from the text and under which circumstances this pragmatic step of updating the context succeeds and fails. There seem to be two alternatives depending on the situation a speaker is in. First, the whole text is interpreted dynamically and the resulting text interpretation is then applied to a specific context. Second, smaller units (increment sizes) are interpreted and applied to a specific context immediately. Our data suggest that the pragmatic step always takes place but can be postponed until text interpretation is completed given the appropriate communicative setting.

Intuitively it is the fictional nature of the text that makes it easier to suspend the requirement that the immediate context furnishes appropriate referents for the variables in the text. Bauer and Beck (2014) argue that the meaning and relevance of fictional texts can be modeled with an operator (FictionalAssert) that sets the fictional worlds described by the text in relation to the actual world via an accessibility relation R similar to the one occurring in conditionals. Defining this relation and thereby specifying what the relevance of the text is for individual readers only happens after the whole text is interpreted. This might be connected to the fact that the pragmatic step happens not until this point either. This, however, is an issue that requires further

investigation.

3.2.4. Summary- P2-E2. Especially investigations at the semantics-pragmatics interface can benefit from the discussion and analysis of the linguistic data lyrical texts provide. The lack of context creates a communicative situation which allows the reader to switch into a special mode of dynamic interpretation. We have shown that this mode of interpretation is the only appropriate way to interpret referential expressions in poetry.

A static system would force the reader to interpret a sentence immediately with respect to a contextually provided variable assignment function g. This static interpretation results in a conflict when a referential expression without a proper referent in the context is used:

(40)
$$[[S1]]^g = \dots \rightarrow \text{possible conflict}$$

There is no appropriate value for the pronoun and interpretation fails. In a simple dynamic system, as sketched above, sentences can be seen as a set of variable assignment functions. The information about the properties of these assignment functions is accumulated sentence after sentence. This can be modeled via intersection of the sets of the assignment function each sentence denotes:

(41)
$$[\lambda g[[S1]](g) \& [[S1]](g)]_{o} \rightarrow \text{possible conflict}$$

The pragmatic step only happens after all information has been collected. That is, the whole text is interpreted with respect to a certain variable assignment after the meanings of individual sentences have been combined.

(42)
$$\varphi$$
 (g1)

Our findings bring us to a revision of P2:

(P2') The special communicative situation created in poetry reveals that choosing between static and dynamic interpretation depends on the text type. Dynamic updates are related to the increment size. The pragmatic step of applying to the given context is possibly postponed to text level in lyrical texts and interpretation proceeds dynamically until then.

3.3. Intermediate Summary

In section three, we argued that lyrical texts are especially valuable data since they are written by a language specialist. The structures used by the poet are not to be considered mistakes but are produced intentionally to serve a specific purpose, for example, increasing awareness of his/her own language in the reader. The poet highlights the properties of language by using it creatively (P1).

Furthermore, the poem itself is a small and manageable data set which shows a wide range of interesting grammatical phenomena and their interaction, especially context-dependent expressions. Due to the lack of context the reader is confronted with in poetry, the texts are well suited for investigations of how the meaning of these expressions is constituted (P2).

These two claims were substantiated by discussing two examples of phenomena that lie at the semantics-pragmatics interface, coercion and the resolution of pronouns (E1 and E2). The mismatches occurring in poetry show the range of reinterpretation mechanisms provided by the grammar. The data suggest that this range requires current models of coercion to allow for more flexibility. Our data suggest a revision of the existing theories that makes them sensitive to coercion as a local repair mechanism where context always and immediately plays a role. The lexicon and the structure seem to put some pressure on the way we reinterpret, but, as our data show, they are not the only factor for why and how we reinterpret.

The lack of context highlights its role in interpreting anaphors like pronouns. It suspends the immediate application to a given context and requires dynamic interpretation up to text level.

4. Lyrical Texts as part of UG (P3)

In this section, we first would like to summarize in how far the examples we just discussed speak in favour of including lyrical texts more seriously into the type of data considered for the research in formal semantics and pragmatics. Based on the evidence, we would then like to argue more generally that data from lyrical texts are revealing with respect to the structure and nature of Universal Grammar⁶. Given the similarities of other data discussed in linguistic research, we would like to propose that lyrical texts are equally valuable data. The third proposal defended in this section. is thus meant to offer a new perspective for linguistic research in general.

4.2. Perspectives for Further Research

Based on the evidence that we have so far and that was presented in section 3, we want to propose more generally that lyrical texts should be considered more seriously as data, especially in formal semantics and pragmatics. The two examples discussed above illustrate the value of lyrical texts for research in formal semantics and pragmatics. In addition, we would like to offer our position as a general perspective for future research in linguistics. We propose that lyrical texts are not only fit for investigations of certain phenomena that lie at the semantics-pragmatics interface but are generally revealing with regard to the structure of grammar. We argue that they drive the more flexible parts of grammar to the limits and keep its most stable properties at the same time. We want to argue this, first, by showing similarities with other varieties of language. Second, we want to emphasise that certain interpretations are impossible, even in poetry. Furthermore, we would like to stress that the special properties lyrical texts possess are within a well-defined range and that there are specialists – literary scholars – which can inform us about how these properties might influence grammar.

4.2.1.Study of data that are not in grammar G of L can be evidence for UG. Of interest to our enterprise are in particular structures found in lyrical texts that depart from the rules of G. Studying deviances from grammatical form is a common method exploited for the development of linguistic theory. Intuitions and grammaticality judgments mirror native speakers' competence of a language, i.e. its grammar.

⁶ See Petzell and Hellberg (2014) for making a similar argument, focusing on syntactic properties.

Studying levels of (un)acceptability is hence taken to be revealing with respect to the structure of grammar.

Featherston (2006), for example, compared in an experiment the degrees of (un)acceptability for relative marker drop in German and English. Whereas in English object marker drop is acceptable (43a) and subject marker drop is not acceptable (43b) both are unacceptable in German (44a, 44b).

- (43) a. John saw the girl he liked.b. * John saw the girl liked him.
- (44)* Peter hat a. das Mädchen gesehen er mag. Peter has likes the girl seen he b. ** Peter hat das Mädchen gesehen ihn mag. Peter has the girl seen him likes

He found a significant difference in acceptability between dropping the subject versus the object relative marker in German. This effect cannot be explained by exposure to these structures or their frequency since both are never used. The overall difference in acceptability of course can be explained by a different parameter setting for relative marker drop in English and German. The fact that the structures in (43b) and (44b) are considerably less acceptable than their counterparts in (43a) and (44a) in both languages, however, should be explained by a crosslinguistically stable property of human language. Comparisons of grades of unacceptability hence play a very important role for linguistic theory since they help to identify potentially universal features of human language.

This is further emphasised by the vast study of the deviant grammar of speech errors or of second language (L2) learners. Just like the experiment presented above, the ungrammatical structures reveal what the scope of certain linguistic possibilities is, i.e. whether certain structures are unacceptable due to language specific properties or universal properties of human language (e.g. Yamane 2003).

A related observation was made by Kiparsky (1973: 231) for poetry. He argues that over the centuries poetic form has remained fairly stable. He suggests that "the structures involved are primarily those which are universal rather than those which apply only to a particular language" (Kiparsky 1973: 243). In other words, the deviances we observe deviate systematically from a fixed core grammar. That makes poetry especially fit for investigations of Universal Grammar.

Hence, we must refute a position by which the study of unacceptable structures like errors by L2 learners is revealing but the study of literary texts is not. Degrees and types of unacceptability in general are important evidence for more general properties of human language.

4.2.2. Lyrical Texts offer data that are not predicted to be acceptable by G but might well be acceptable by G' – a grammar close to G. Next, we consider it important that we are relating G to a poem targeting L1 speakers, and not e.g. English to Mandarin Chinese. To consider the language of the poem a "different language" is not quite right. A better description would be to consider its language a variety of the same language. The grammar of the poem - let's call it G' - must be close enough to G to make its language recognizable by G speakers. We compare lyrical texts to other cases of related grammars which reveal striking similarities to grammatical properties of lyrical texts. More precisely, we want to show how poetic texts uncover the

dynamic potential of language and the steps grammar can take in its development by comparing them with the grammar of child language as well as diachronic stages of English. We argue that all varieties of a language display states of a language it could be in.

Many structures that appear in poems and are not part of the grammar of L1 show up in child language as well. One example is once more dropping the subject relative marker, which, as has been shown above, is ungrammatical in PDE adult language. However, it is commonly used in poetry and by children. Examples (45a) and (46a) are taken from Emily Dickinson's "This was a poet". Plausible readings of these lines are given in (45b) and (46b), respectively. They assume that the subject relative markers were elided.⁷

- (45) a. We wonder it was not Ourselves Arrested it – before –
 - b. 'We wonder it was not ourselves *who* arrested it before'
- (46) a. The Poet it is He –
 Entitles Us by Contrast –
 To ceaseless Poverty
 - b. 'The poet, it is he, *who* entitles us by contrast to ceaseless poverty'

As Schuele and Tolbert (2001: 258) show there is a stage just before the age of three where children omit obligatory relative markers and produce sentences like (47a):

- (47) a. (there's baby) there's my baby wants to go in train
 - b. 'There is my baby *who* wants to go in the train.'

Moreover, they argue that the same omission is grammatical in English dialects, e.g. Scottish (Schuele & Tolbert 2001: 260). This means that the ungrammatical structures in (45a) and (46a) are fine in varieties of PDE.

There are other omission structures for which a parallel point can be made. In the example in (48), which is taken from Emily Dickinson's "Who never wanted – maddest Joy", most likely the copula is dropped.

- (48) a. Within its reach, though yet ungrasped Desire's perfect Goal
 - b. 'Within its reach, though yet ungrasped is Desire's perfect goal'

At the age of two years children also omit copulas (Becker 2004) and produce sentences like (49a) and (49b).

(49) a. *I in the kitchen.* ('I *am* in the kitchen') b. *He way up dere.* ('He *is* way up there') (Becker 2004:158)

-

The underlying structure advocated for here is, of course, not the only way to analyse (4a) and (5a). It is also possible, for example, to analyse "it is he" in (5a) as an apposition. The decision of how to analyse and interpret single structures in ED's poems is not trivial and depends on a lot of different factors. A complete and concrete analysis and interpretation of the poem that illuminates this is given in Bauer et al. (2010). The options presented are plausible within the poem and hence sufficient for illustration of the point that a subject relative marker drop is possible in poetry.

Similarly, African American English (AAE) permits copula omission, see the example in (50) (Labov 1969:717).

(50) You out the game. ('You are out of the game')

Labov (1969:719) argues that the conditions under which the copula can be dropped in AAE are parallel to the conditions under which contraction is possible in standard PDE. Hence the study of a grammar G' close to G is revealing with respect to G. Apart from omission structures, there are interesting similarities with regard to the use of pronouns in poems and child language. Gender features that are encoded in the lexical meaning of the pronoun sometimes do not fit the predicate the pronoun combines with in poetry (Dickinson's "If it had no pencil").

(51) If it had no pencil Would it try mine –

One possible interpretation is one where "it" refers to a human referent even though that falsifies the presupposition of the pronoun which requires the referent to be nonhuman. But the mismatch creates an interpretive uncertainty. Children have been reported to show non-adult uses of pronouns in the exact same way: "As *it* is the first pronoun used, it is not strange that it sometimes occurs with reference to animate objects." (Cruttenden 1977). One plausible interpretation of this similarity is that the core property of pronouns is that they are variables. The gender information encoded is an additional feature which is most likely used to avoid ambiguity in context. This latter property is one that children are not yet sensitive to. The poet, on the other hand, consciously chooses this option to create ambiguity. This emphasises that the occurrence of the genderless pronoun, which the ambiguity lives on, is an inherent property of human language.

A grammar that is similarly close to the grammar G of L1 is the grammar of historically earlier stages of L1. The study of structures that used to be acceptable in earlier stages of L1, but are not anymore, is also considered very valuable for the development of linguistic theory. It provides evidence for grammars G' out of which G would evolve. Old and Middle English syntax for example is extensively studied because of the implications for the clause structure of Modern English.

The seemingly ungrammatical structures that occur in poetry show tremendous parallels to structures acceptable in earlier stages of English. It is therefore reasonable to consider them as equally revealing with respect to the syntax of Modern English. One example of structures which are unacceptable in Modern English but were perfectly acceptable in Middle English are Object Verb orders (Biberauer and Roberts 2006). They are also commonly used in poetry, as in (52) taken from Alfred Lord Tennyson's poem "A Farewell" or (53) taken from Ralph Waldo Emerson's "Give all to love".

- (52) a. Flow down, cold rivulet, to the sea, Thy tribute wave deliver (Hill 1971: 94)
 - b. 'Flow down, cold rivulet, to the sea, deliver thy tribute wave'
- (53) a. Give all to love; Obey thy heart; [...]

Nothing refuse (Emerson 1918: 90-1) Give all to love;

b. Give all to love; Obey thy heart; refuse nothing

Other structures that used to be grammatical in Old and Middle English are Verb-Second word orders (Kroch & Taylor 1997). They are ungrammatical in Modern English but can frequently be found in poetry, as for example in (54) which is the beginning of Tennyson's "Now sleeps the crimson petal" and (55) which is taken from John Keats' "A Galloway Song".

(54) a. Now sleeps the crimson petal (Hill 1971: 115–16)

b. 'The crimson petal sleeps now'

(55) a. Then came his brother Rab and then
Young Peggy's mither (Allott 1970: 363–64)

b. 'Then his brother Rab came and then young Peggy's Mither'

Not only systematic syntactic changes but also semantic changes are visible in lyrical texts. The origin and development of a word, which is important for how its semantics should be modeled, can sometimes be followed by looking at its use in verse texts. Quite a number of lexical changes can be observed in Shakespeare's plays which are partly written in verse. The now common use of "forward" as a verb, for example, was unavailable in Middle English where it was exclusively used as an adjective or adverb. The first use as a verb is attested in Shakespeare's "Henry IV" which appeared in 1598 (OED):

(56) [...] Then let me hear
Of you, my gentle cousin Westmorland,
What yesternight our Council did decree
In forwarding this dear expedience. (Kasten 2002: 30-33)

Shakespeare enriched the meaning of *forward* by extending its use to another lexical category. It is, of course, possible to observe systematic changes like this in other text types. Poems and verse texts in general, however, draw our attention to examples of unusual and novel structures and the environments they occur in. The unusual way in which certain lexical items like *forward* in (56) are used show under which circumstances an enriched or even completely new meaning is plausible and might become conventionalised (see Eckardt (2012) for recent discussion of this view on language change).

The examples from poems hence illuminate what kind of linguistic structures are subject to change and under what conditions they have the potential to change. This, too, helps identify stable properties of grammar as opposed to parts that vary between different speakers over different times and in different languages.

In sum, while the poem may not be data in support of all properties of G, it constitutes data for grammars close enough to G to be comprehensible to speakers with G in mind. Those are grammars very similar to the grammars at work in first and second language acquisition, and grammars of varieties of L1. They are also what one might call grammars of possible, and sometimes actual, language change. We conjecture that poems may make visible synchronically paths of diachronic development.

4.2.3. (Im)Possibilities In the last section, we demonstrated that structures occuring in poetry are similar to what we find in other varieties of language. Additionally, the deviances we observe are not the result of arbitrary violations of just any rule of grammar but operate within a certain range of flexibility the grammar allows for - i.e. not everything that is logically possible occurs. Some conceivable analyses and interpretations of structures occurring in poetry are impossible or highly implausible. This fact reveals the boundaries of what rules can be bent when analysing and interpreting lyrical texts. It is unlikely, for example, that the expression "three personed god" in (57), taken from John Donne's "Batter my heart", is interpreted via a rule which is not Predicate Modification (Heim & Kratzer 1998).

(57) *Batter my heart, three person'd God; for, you* (Stringer 2005:109)

It seems completely impossible, for example, to assume that "three person'd God" receives a disjunctive interpretation, resulting in a meaning like (58).

(58) [[three person'd God]] = λx . three-personed(x) \forall God(x) ('x is three-personed or x is god')

The two lines in (59) taken from Emily Dickinson's "My life had stood a loaded gun" can also serve as an illustration for what is an unlikely interpretation, disobeying the rules of composition:

(59) And every time I speak for Him – The mountains straight reply –

A highly implausible interpretation of (59) is the one given in (60) below where the universal quantifier "every time" first combines with its nuclear scope and then with its first argument, the restrictor, thereby violating the order of Functional Application (Heim & Kratzer 1998).

(60) ∀t'. the mountains reply at t' → I speak for him at t''
'For every time t', if the mountains reply at t' then I speak at t''

The fact that both interpretations in (58) and (60) are totally unavailable for the structures in (57) and (59) shows that the rules of composition are not to be violated. The mechanisms necessary to interpret poetry hence do not violate hard limits of grammar. The examples we find in poetry suggest that the rules of composition constitute one of these hard limits.

It seems that all interpretation is driven by compositionality and flexibility occurs within its limits.

Examples of somewhat more flexible points of grammar are type mismatches. Those occur in poetry but they do not allow for a wider range of interpretations in poetry than in ordinary discourse. They are almost only interpretable when certain type shifts are conventionalized. This is, for example, the case in Dickinson's "I'm Nobody!", where the quantifier *Nobody* must either be reinterpreted as a proper name of type <e> or a property of type <e,t>.

(61) I'm Nobody! Who are you?

The use of *Nobody* as a proper name is commonly found in non-poetic language, too, as in the pun 'Nobody is perfect. I am nobody'. *Nobody* interpreted as a property is also not rare in ordinary language. At least in German and English it is even grammatical to put an indefinite determiner in front of it to mark this use (e.g. 'He is a total nobody'). The shifting of types is thus of limited flexibility, constrained by the grammar. Similar interpretations of these examples in poetry and everyday language can be observed. That is, for type mismatches, no additional options are available in poetry which suggests that the relevant type shifting operator (Partee 1987) might also be universal.

In sum, there seem to be soft restrictions of the grammar that, if violated or suspended in certain structures in poetry, still allow for these structure to be reinterpreted. This interpretative flexibility should not be considered as aiming at obscurity but as intended by the poet and important for the global interpretation of the text. But there are also hard restrictions, as, for example, the rules of composition and type shifting rules that are preserved and obeyed in poetry.

4.2.4. Input of literary scholarship Here is a proviso regarding our proposal: We acknowledge the fact that there is a wide spectrum of what might be called lyrical uses of language. There are rather trivial lyrical texts which show some of the structural features of poetry but are not characterized by a high complexity of language. Birthday poems like the one in (62) below, for example, have regular rhyme and metre but are not characterised by distinctive semantic or syntactic features.

(62) I wish you the best
Birthday ever,
One that's so
Fantastic that
It lives in your heart
Forever.
And I want you to know
That wherever
You go,
I'm always
wishing the best
for you⁸

This type of poetry is also not very interesting from a pragmatic point of view. They are meant for a special occasion. Hence, in the situation they occur, speaker, adressee and purpose are clearly defined. These types of poems are thus not especially revealing as a data source.

On the other side of the spectrum, there are also highly unconventional lyrical texts, as for example experimental poems, which show that language has some structure but none that will map onto a semantic structure which can then be interpreted with the rules of composition (e.g. Christian Morgenstern's "Fisches Nachtgesang" (1973: 31), see appendix). We concede that both ends of the spectrum might be unrevealing with regard to the grammatical features of a language. It is, however, important to note that we are looking at lyrical texts that lie in the centre of the spectrum and argue for those

⁸ Loveliestmoment.blogspot.de/2013/05/birthday-poems.html, last accessed 16.06.2013

texts to be valuable data sources for linguistics. The input of literary scholarship helps identify the poems that are appropriate data. It tells us what are complex but not uninterpretable types of texts.

Furthermore, this input is valuable for judging the influence of other features poetic language possesses which make it different from ordinary language besides the variations described above. These features include rhyme, metre and rhythm, for example. However, virtually all types of data in linguistics include factors which make them different from naturally used, ordinary language. In an experimental setting, unnatural tasks tend to put enormous emphasis on aspects of language that are normally much less influential (like word frequency). It can be considered an advantage of lyrical texts as data source that such non-grammatical features are fairly obvious. Moreover, the connection to literary studies allows us to consult experts on precisely those features that the linguist does not understand so well.

- 4.2.5. Summary We disagree with the prejudice that studying lyrical language in general is unrevealing with respect to the properties of the grammar. We have shown that those features that are special to lyrical texts uses of language outside the grammar of the language the poem is written in are certainly revealing with respect to grammar more generally. They show a state that the language could be in, even if it is not as revealed by parallels to language acquisition and language change. We have seen in section 3 that this latter point makes lyrical texts particularly interesting, since like acquisition and change they reveal the dynamic potential of language. At the same time, lyrical texts do nothing that ordinary language does not allow for. We illustrated this by discussing impossible interpretations. The core properties and rules of UG are preserved and serve as the basis of interpretation in poetry. Our findings suggest the following revision of proposal three:
- (P3') Lyrical texts follow the rules of UG. They deviate from G in ways similar to certain language varieties. They do not allow for violations of universal rules, e.g. type shifting rules and rules of composition.

5. Conclusion

The three main proposals we defended and argued for in this paper are repeated in their refined versions below:

- (P1') Creative uses of language in poetry reveal the whole potential of language. A large range of the reinterpretive possibilities that the grammar allows for is laid open. The driving force of reinterpretation is not limited to plain uninterpretability; the direction and pathways of reinterpretation are not fixed (*contra* standard coercion theories).
- (P2') The special communicative situation created in poetry reveals that choosing between static and dynamic interpretation depends on the text type. Dynamic updates are related to the increment size. The pragmatic step of applying to the given context is possibly postponed to text level in lyrical texts and interpretation proceeds dynamically until then.
- (P3') Lyrical texts follow the rules of UG. They deviate from G in ways similar to certain language varieties. They do not allow for violations of universal rules, e.g. type shifting rules and rules of composition.

The programmatic points made in this paper show the potential of lyrical texts as a data source for investigations of grammar, especially the semantics-pragmatics interface. We argued that lyrical texts possess certain properties that make them especially fit for these investigations. Given our results, we find that the often made distinction between "ordinary" language and "poetic" language is misleading in that it suggests that poetic language is not ordinary and thereby not data to be considered by formal semanticists and pragmaticists. The view we defend here is that lyrical texts use a variety of the grammar of a language which deviates in certain respects from the standard grammar. These deviations are not accidental or mistakes but are produced by an intuitive linguist to achieve a specific effect. Investigating the system behind these deviations is crucial for understanding the core grammar and the division of labour between syntax, semantics and pragmatics.

We discussed two phenomena where lyrical texts shed new light on the assumptions of linguistic theory, coercion and pronouns. One can extend the dynamic perspective on pronouns to further phenomena, for example presuppositions and indexicals. Furthermore, one can investigate a wider range of lyrical texts to see what restricts and drives coercion processes besides the grammar.

More generally, one can further examine the distinction and connection between grammar and the "pragmatic step" (update of the context with information from a given text). Of special interest for linguistic theory is when and how the result of grammar-based interpretation is related to contexts or situations. The first question addresses the increment size that is considered when interpreting and applying the results of this interpretation to a context. The second question is concerned with the relation between the text type and the mode of interpretation (dynamic versus static) that is chosen. For example, fictional texts might have a special type of pragmatics which allow for different strategies and mechanisms. There is some evidence already that a special operator is at play for managing assertion in lyrical texts (see Bauer & Beck 2014) and that, as a result, there is a special mechanism behind apparent violations or floutings of the Gricean maxims (Brockmann et al, to appear). More research is needed to support this view.

In addition, one might look into lyrical texts in the light of other language varieties. This line of investigation would also be interesting for other subfields of linguistic research not addressed in this paper, especially syntax and the syntax-semantics interface.

Appendix

Emily Dickinson

My life had stood a loaded gun (J754)

My Life had stood - a Loaded Gun -In Corners - till a Day The Owner passed - identified -And carried Me away -

And now We roam in Sovereign Woods -And now We hunt the Doe -And every time I speak for Him -The Mountains straight reply -

And do I smile, such cordial light Upon the Valley glow -It is as a Vesuvian face Had let its pleasure through -

And when at Night - Our good Day done - I guard My Master's Head - 'Tis better than the Eider-Duck's Deep Pillow - to have shared -

To foe of His - I'm deadly foe -None stir the second time -On whom I lay a Yellow Eye -Or an emphatic Thumb -

Though I than He - may longer live He longer must - than I -For I have but the power to kill, Without--the power to die--

This was a poet (J448)

This was a Poet -- It is That Distills amazing sense From ordinary Meanings --And Attar so immense

From the familiar species
That perished by the Door -We wonder it was not Ourselves
Arrested it -- before --

Of Pictures, the Discloser --The Poet -- it is He --Entitles Us -- by Contrast --To ceaseless Poverty --

Of portion -- so unconscious --The Robbing -- could not harm --Himself -- to Him -- a Fortune --Exterior -- to Time --

If it had no pencil (J921)

If it had no pencil,
Would it try mine –
Worn – now – and dull – sweet,
Writing much to thee.
If it had no word –
Would it make the Daisy,
Most as big as I was,
When it plucked me?

I am nobody (J288)

I'm Nobody! Who are you? Are you – Nobody – too? Then there's a pair of us! Don't tell! they'd advertise – you know!

How dreary – to be – Somebody! How public – like a Frog – To tell one's name – the livelong June – To an admiring Bog!

I'm ceded (J508)

I'm ceded -- I've stopped being Theirs -- The name They dropped upon my face With water, in the country church Is finished using, now, And They can put it with my Dolls, My childhood, and the string of spools, I've finished threading -- too --

Baptized, before, without the choice, But this time, consciously, of Grace --Unto supremest name --Called to my Full -- The Crescent dropped --Existence's whole Arc, filled up, With one small Diadem.

My second Rank -- too small the first --Crowned -- Crowing -- on my Father's breast --A half unconscious Queen --But this time -- Adequate -- Erect, With Will to choose, or to reject, And I choose, just a Crown --

He fumbles at your Soul (J315)

He fumbles at your Soul
As Players at the Keys
Before they drop full Music on -He stuns you by degrees -Prepares your brittle Nature
For the Ethereal Blow
By fainter Hammers -- further heard -Then nearer -- Then so slow
Your Breath has time to straighten -Your Brain -- to bubble Cool --

Deals -- One -- imperial -- Thunderbolt -- That scalps your naked Soul -- When Winds take Forests in the Paws -- The Universe -- is still --

John Donne

Batter my heart

Batter my heart, three-person'd God, for you As yet but knock, breathe, shine, and seek to mend; That I may rise and stand, o'erthrow me, and bend Your force to break, blow, burn, and make me new. I, like an usurp'd town to another due, Labor to admit you, but oh, to no end; Reason, your viceroy in me, me should defend, But is captiv'd, and proves weak or untrue. Yet dearly I love you, and would be lov'd fain, But am betroth'd unto your enemy; Divorce me, untie or break that knot again, Take me to you, imprison me, for I, Except you enthrall me, never shall be free, Nor ever chaste, except you ravish me.

Alfred Lord Tennyson

Now Sleeps the Crimson Petal

Now sleeps the crimson petal, now the white; Nor waves the cypress in the palace walk; Nor winks the gold fin in the porphyry font; The firefly wakens, waken thou with me.

Now droops the milk-white peacock like a ghost, And like a ghost she glimmers on to me.

Now lies the Earth all Danae to the stars, And all thy heart lies open unto me.

Now slides the silent meteor on, and leaves A shining furrow, as thy thoughts, in me.

Now folds the lily all her sweetness up, And slips into the bosom of the lake. So fold thyself, my dearest, thou, and slip Into my bosom and be lost in me.

A Farewell

Flow down, cold rivulet, to the sea, Thy tribute wave deliver: No more by thee my steps shall be, For ever and for ever.

Flow, softly flow, by lawn and lea, A rivulet then a river: Nowhere by thee my steps shall be For ever and for ever. But here will sigh thine alder tree And here thine aspen shiver; And here by thee will hum the bee, For ever and for ever.

A thousand suns will stream on thee, A thousand moons will quiver; But not by thee my steps shall be, For ever and for ever.

Ralph Waldo Emerson

Give All To Love

Give all to love; Obey thy heart; Friends, kindred, days, Estate, good-fame, Plans, credit, and the Muse,-Nothing refuse. 'Tis a brave master; Let it have scope: Follow it utterly, Hope beyond hope: High and more high It dives into noon, With wing unspent, Untold intent; But it is a god, Knows its own path, And the outlets of the sky. It was not for the mean; It requireth courage stout, Souls above doubt, Valor unbending; It will reward,-They shall return More than they were, And ever ascending. Leave all for love; Yet, hear me, yet, One word more thy heart behoved, One pulse more of firm endeavor,-Keep thee today, To-morrow, forever, Free as an Arab Of thy beloved. Cling with life to the maid; But when the surprise, First vague shadow of surmise Flits across her bosom young Of a joy apart from thee,

Free be she, fancy-free;

Nor thou detain her vesture's hem, Nor the palest rose she flung From her summer diadem.

John Keats

A Galloway Song

Ah! ken ye what I met the day Out oure the Mountains A coming down by craggi[e]s grey An mossie fountains --A[h] goud hair'd Marie yeve I pray Ane minute's guessing --For that I met upon the way Is past expressing. As I stood where a rocky brig A torrent crosses I spied upon a misty rig A troup o' Horses --And as they trotted down the glen I sped to meet them To see if I might know the Men To stop and greet them. First Willie on his sleek mare came At canting gallop --His long hair rustled like a flame On board a shallop. Then came his brother Rab and then Young Peggy's Mither And Peggy too -- adown the glen They went togither --I saw her wrappit in her hood Fra wind and raining --Her cheek was flush wi' timid blood 'Twixt growth and waning --She turn'd her dazed head full oft For there her Brithers Came riding with her Bridegroom soft And mony ithers. Young Tam came up an' eyed me quick With reddened cheek --Braw Tam was daffed like a chick --He coud na speak --Ah Marie they are all gane hame Through blustering weather An' every heart is full on flame Ah! Marie they are all gone hame Fra happy wedding, Whilst I -- Ah is it not a shame? Sad tears am shedding.

Christian Morgenstern

Fisches Nachtgesang

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