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Government and V/2 in German*

Since Bierwisch's pioneering work on German syntax, it is commonly agreed that German is SOV in deep structure. The position of the inflected verb at the end of subordinate clauses is taken as its D-structure position, the second position of the inflected verb in matrix-sentences is its S-structure position derived by a movement-rule.

Within the theory of Government and Binding, we may hope to find an explanation for this matrix-subordinate as\$symmetry. In this paper, I want to investigate to what extent such an explanation is feasible and which principles and parameters should be adopted in it.

In § 1 we present Safir's recent proposal to derive V/2 in terms of Inflection-Government Theory. A first criticism concerning the intuitive validity of his regulating principles is formulated at the end of the paragraph. In the course of developing an alternative approach in § 2, we will reject Safir's main thesis, namely that the inflected verb must be governed, and assume the opposite: the inflected verb cannot be governed. The alternative theory will be shown to be superior on both conceptual and empirical grounds. Having explained the core data in § 2, we extend the analysis to more remote areas in § 3. Although I am exclusively concerned with German, I will nevertheless draw upon "cross-linguistic evidence" that can be gained from the Bavarian dialect.
§ 1. Assuming a SOV-base in D-structure, Thiersch (1978) derives V/2 in main-clauses in two successive steps: first, fronting the finite verb to S-initial position (R1), and then fronting any X-double-bar category to the COMP-position of S (R2).

In order to derive (R1) and (R2) from the principles of Government-Theory, Safr proposes the D-structure (1),

\[
\begin{array}{c}
\text{COMP} \\
\Downarrow \quad S \\
\text{NP} & \text{VP} & \text{INFL} \\
\quad \Downarrow \\
\quad \ldots \\
\quad V_1
\end{array}
\]

a subsequent restructuring rule attaching V_1 to INFL without leaving a trace to the effect that the tense feature of INFL can be spelt on a verbal phonological base, and the Head-Uniqueness Principle (HUP):

(HUP) S must have a unique governed head.

Taking INFL to be the head of S, S is governed in subordinate clauses, INFL is governed by percolation (cf. Chomsky GB p. 300, Kayne 1981) and the (HUP) is satisfied. If further a lexically filled COMP counts as a governor of an adjacent node, V/2 can be derived in the following manner:

"Since INFL/V is ungoverned in its base position in a matrix sentence, INFL/V must move to a position where it is governed in order to satisfy (HUP). The only available governor for
INFL is COMP. Move a can chomsky-adjoin INFL above in a position where COMP governs INFL/V, ... This is insufficient to satisfy HUP, however, as COMP is only a governor if it is lexically filled. Thus some \( \bar{x} \) element must move to COMP to fill it in order that the COMP node can govern the moved INFL/V (I am assuming that the complementizer dass is not a sufficient governor)." (Safir, p. 426f) Accordingly, we can generate the following S-structure:

\[
(2) \quad S \leftarrow \begin{array}{c}
\text{COMP} \\
\text{NP}_1 \downarrow \\
\text{NP}_2 \downarrow \\
\text{INFL}_1/V_1 \downarrow \\
\text{S} \\
\text{S} \\
\text{S} \\
\text{VP} \\
\text{INFL}_2/V_2 \\
\end{array}
\]

On the other hand, "if INFL/V is fronted and adjoined to S in a subordinate clause, then both it and its trace will be percolation - governed. Since there is not a unique governed head of S, but rather two, the HUP is violated." (ibid. p 428)

For the argument to go through we had to postulate a number of principles and rules, which seem to be at least dubious and should be dispensed with in the more restrictive theory to be developed in § 2:
1. The HUP as a universal principle is questionable, since English declarative sentences have to be made exempted from HUP (cf. Safir, p. 438). Rather, we should expect that the finite verb cannot be governed, at least not in matrix sentences.

2. Making COMP a governing category is a deviation from classical theory in two respects: if we assume, as Safir does, that the material dominated by COMP governs INFL, we have to admit non-heads as governors as well as non-$X^0$ categories. Thus the NP Hans in Hans kommt will govern kommt in S-structure, but kommt will govern Hans in D-structure. There seems to be no independent motivation for this distort except the derivation of V/2; moreover, it tends to undermine the conceptual clarity of the concept of government.

3. Since Safir is forced not to count trace for adjacency with respect to inflection-government in order to generate Who_1_t_1_left?, we are left with an unexpected asymmetry with respect to subject-verb and subject-verb-object-sentences in German: In the latter, movement of INFL/V is obligatory, whereas in Hans kommt it is impossible, since otherwise both Hans (= COMP) and kommt (= INFL/V) would govern the trace of INFL/V thereby violating HUP (compare Safir, p. 434f.). Moreover, in Hans weiß, wer kommt both the matrix-verb and COMP govern INFL/V, admitting again a structural position to be governed twice, which
contracts an otherwise plausible principle implicit in many definitions of government, namely that a position may be governed by at most one element in a structure.

4. Safir explains the ungrammaticality of (3)(i) without the marked emphatic reading

\[(3)(i) \ast \text{Who did leave?}\]

\[(ii) \quad S \quad S \quad S \quad S\]
\[\quad \text{COMP} \quad \text{INFL/AUX} \quad \text{NP} \quad \text{INFL/AUX} \quad \text{VP}\]
\[\quad \text{who} \_j \quad \text{did} \quad e_i \quad e_j \quad \text{leave}\]

by the assumption, that $e_j$ is governed by $\text{did}$ across the subject-trace, thus contradicting HUP, whereas in

\[(iii) \quad \text{Who did she t} \_1 \text{ leave?}\]

government is blocked by adjacency. Accordingly, in

\[(4)(i) \quad \text{Wen} \_1 \text{ verließ sie t} \_1 \text{ t} \_2 ?\]

adjacency must be required for inflection-government to prevent INFL/V to govern its trace. In contrast, INFL must govern the subject NP in the subordinate clause

\[(ii) \quad \text{dass sie ihn verließ}\]

to admit case-assignment to the subject, thus violating the adjacency-requirement. It is obvious that some further ad-hoc moves are necessary to eliminate the contradiction.
5. Verb-raising to INFL does not leave a trace. As a simple consequence, *ihn* in (4) b. cannot be governed in S-structure. Even if case is assigned at D-structure, the trace of *wen* in

(5) Hans weiß, wen sie t liebt

is not governed in S-structure. Again, specific conventions are necessary to save the theory.

6. There are a lot of phenomena, especially in the Bavarian dialect of German, that require two initial positions in subordinate clauses. As it will turn out, Safir's approach has to fail in view of the fact, that one of them can be identified with an inflected position (see the discussion of the inflected COMP-node in Bavarian, p. 000).

Some additional shortcomings will be revealed in the course of developing an alternative approach.

§ 2. To begin with D-structure, a perhaps unusual feature of my account of German syntax is due to the observation that the order of arguments within the projection of $V^0$ is fairly free, but restricted by thematic structure, the definite-indefinite distinction, cohesion with negative elements, the identity of certain verbs ("psych-movement") and numerous other factors. In reaction to this, our non-configurational base-rules will freely generate phrases like (6):
(6)(i) es ihm nur ein Idiot glauben wird
   it ACC him DAT only an idiot believe will
(ii) ihm niemand so etwas glauben wird
    him DAT nobody NOM such a thing believe will
   ACC
(iii) Herrn Schmidt die Sache nicht interessiert
     Herr S. DAT the thing not interests
    NOM
(iv) ihn keiner kommen hört
     him ACC nobody NOM come hears
(v) getanzt wird (impersonal passive)
danced is

An appropriate theory of case, government and grammatical functions has been developed elsewhere (Sternefeld 1982) as an extension of Chomsky (1981). For the present purposes it is sufficient to note that
a. there is no INFL-position in (6); the subject is
governed by the morphology of the finite verb instead
   (cf. Marantz 1981)
b. there is no VP-node in (6); the entire phrases in (6)
   are the maximal projections of V instead.

The relevant configurational part of the base consists of the following rules:

(7)(i) $S \rightarrow X \quad S$
       [PreF]
(ii) $S \rightarrow V^0 \quad V^{max}$
     [LSB]
The features $\text{[Pref]} = \text{prefield}$ and $\text{[LSB]} = \text{left sentence bracket}$ are drawn from traditional terminology (cf. Reis 1980)\(^1\); we will refer to their nodes as the COMP or peripheral positions of $S$. The feature $\text{[LSB]}$ is compatible only with the finite verb and the complementizers $\text{da}β$, $\text{ob}$, ..., $\emptyset$ (the empty complementizer of infinitive-sentences).\(^2\)

We will assume the following principles:

(A) LSB is the head of $\overline{S}$.

(B) The landing sites of move-$\alpha$ are peripheral positions only.

(C) the COMP-positions are subject to a specific version of ECP (see below).

(D) Government-percolation: a governor of $\overline{S}$ governs the head of $\overline{S}$ ($= \text{LSB}$).

(E) The inflected verb cannot be governed.

(F) All maximal projections of $V, N, P, A$ are bounding nodes for subadjacency.

(G) Traces in COMP must be governed.

The matrix-subordinate asymmetry is immediately accounted for by (C)-(E): Both COMP-positions must be filled in matrix-sentences (C); in subordinate sentences, LSB is governed (D) and, as a consequence of (E), movement of the inflected verb to LSB is impossible.

We will discuss the other principles subsequently; before doing so, we note that cases of "exceptional inversion" as in (B)
are treated exactly parallel to Safir's theory: *sagte*
can act as a 'weak' selector that governs $\bar{S}$ but not LSB,
thus movement to LSB is obligatory in these contexts.
Turning now to the concept of government and to the announced qualification of (C), we observe an obvious distinction between government in D-structure and in S-structure. The requirement that trace must be governed applies in S-structure after movement, government of $\bar{S}$ and its LSB applies in D-structure and has to be preserved after movement of $\bar{S}$ to the postfield by extraposition. Likewise a moved V still governs its complements via its trace:

(9) **Aufhängen**$_1$ **sollte**$_2$ man $\quad$ ihn $\quad$ t$_1$ $\quad$ t$_2$

Aufhängen base-governs ihn, the tense-morphology of sollte base-governs man, both verbs in (9) govern by projection from D-structure.$^3$

Let us further assume that an element in LSB governs PreF. Employing the distinction between base-government and government after movement, a complementizer in LSB base-governs PreF whereas a verb in LSB cannot base-govern PreF, since it governs PreF only in S-structure. We now reformulate (C) as

(C') Base-generated empty elements must be base-governed.
Accordingly, the surface-phenomenon that PreF is governed in a matrix clause is not sufficient to leave PreF empty. An empty LSB of a moved $S$ is permissible if and only if it is base-governed by projection, i.e. governed in D-structure. Consider (10):

(10)(i) \[
\begin{array}{c}
\text{Fritz}_1 \quad \text{sagte}_2 \quad \text{er} \quad t_3 \quad t_2 \quad [S_t \quad \text{sei}_4 \quad t_1 \quad \text{krank} \quad t_4] \\
\text{PreF} \quad \text{LSB} \\
\text{Fritz} \quad \text{said} \quad \text{he} \quad \text{be-sub.} \quad \text{ill}
\end{array}
\]

(ii) \[
\begin{array}{c}
[Fritz \quad \text{sei} \quad \text{krank}]_1 \quad \text{sagte}_2 \quad t_1 \quad \text{er} \quad t_2 \\
\text{PreF} \quad \text{LSB} \\
\end{array}
\]

(iii) \[
\begin{array}{c}
*\text{Fritz}_1 \quad \text{sei}_2 \quad \text{er} \quad \text{sagte} \quad [t_1^t \quad t_2^t \quad t_1 \quad \text{krank} \quad t_2] \\
\text{PreF} \quad \text{LSB} \\
\text{PreF} \quad \text{LSB}
\end{array}
\]

(iii) is ill-formed, since the trace in LSB is not governed; in (i) the trace in PreF is governed, the sentence is grammatical. In (ii) the embedded clause in PreF is configurationally governed by \text{sagte} in $S$-structure, its LSB is not base-governed and therefore non-empty.

Apart from exceptional-inversion-sentences we have to examine relative clauses and indirect questions. In German, the relative pronoun agrees with its head-NP in number and gender. We therefore assign to the $S$-node of a relative clause a feature $\text{REL}$(number, gender) which does not percolate to the head, but to governed node:
(11) the saviour without whose help we (would have drowned) 

der Retter ohne dessen Hilfe _e wir t1 ertrunken wären 

Note that the general behaviour of this anti-head feature provides supporting evidence for (7) and (A), because a single COMP-node in (11) would have to count as the head of S.

The S-nodes of direct and indirect questions bear the feature +Q, whose percolation behaviour is the same as that of REL(Number, Gender); but in addition we admit that +Q can be generated freely in the D-structure base:

(12)(i) Er hat wen gesehen (echo-question) 

he has whom,ACC seen

(ii) Ich weiß, wen e du was gegeben hast (multiple indirect question) 

I know to whom you what,ACC given have

The features of was and wen are generated in the right place, whereas the feature of wen gets there by percolation.

Let us refer to +Q and REL(Number, Gender) as +WH-features.

With respect to move α , trace-γ, and binding theory, we have presupposed that no distinction has to be made between (13)(i) and (ii):

(13)(i) \[ S \quad \text{Mit wen} \quad \text{bist du t} \quad \text{gekommen?} \]
\[ +\text{WH} \]
\[ +\text{WH} \]

(ii) \[ S \quad \text{Mit Hans} \quad \text{bin ich t} \quad \text{gekommen} \]

Both sentences are derived by the same movement-rules (Thiersch's (R1) and (R2), and the traces behave exactly alike.

We may strengthen this outcome by the requirement that no distinction can be drawn with respect to move \( \alpha \). This is formulated in \( \text{(H)} \), which correctly predicts, that (14)(ii) and (iii) are ungrammatical:

\( \text{(H)} \) +WH-elements cannot be fronted.

(14)(i) Er glaubte, er habe wen gesehen?

he believed he has-subj. whom seen (echo-question)

(ii)*Er glaubte, wen habe er gesehen?

(iii)*Er weiß, wen daß Maria gesehen hat

Further support for our base rules (7) can be gained by the observation that (14)(iii) is grammatical in Bavarian. The deviation from standard-German is captured merely by lexical properties of the verb wissen: In Bavarian, wissen can simultaneously select the complementizer daß and the anti-head feature +Q.-

Unfortunately, there is still a problem with (15):

(15)(i) *Hans weiß, Maria\( _1 \)\( \text{Nom} \) daß/ob t\( _1 \) ihn gesehen hat.

(ii)*Hans weiß, Maria\( _1 \)\( \text{ACC} \) daß/ob er t\( _1 \) gesehen hat.
not by movement. So far, (I) is the only language-specific parameter that has no inherent plausibility in itself and is dictated purely by descriptive adequacy. Nevertheless it seems to be justified to take (I) as a parameter. Trying to derive (I) from more substantial principles might conflict with violations of (I) in Bavarian; here we find examples like the following (cf. Merkle, p. 192f):

(17)(i) An Fünf\_Pref da\_LSB griag, häd i need gnwouand
      A five that I get, have-subj I not thought
      I wouldn't have thought that I get a five.

(ii) Säng\_Pref wam\_LSB was daad, na waar dees Deadda
     seen if something did, then be-subj. the theatre
     glei nő vui scheena.
     even still much nicer.

     If we could see anything, the play would be even more fun.

The exact nature of (G)-violations has still to be investigated more closely.

§ 3. Persuing our analysis still further, we are content to find other phenomena accessible to our treatment of positional fields; at the same time we have to admit, however, that at least one case of overgeneration remains unexplained. We do not try to give an explanation for it, but simply present the relevant examples, and note in advance that none of the grammatical examples in this
For the time being, we may fall back upon a classical device to get rid of examples like (15), we simply state a restricted and modified version of the doubly filled COMP filter:

(I)  * [-WH, +complementizer]
    PreF    LSB

We will come back to this later on.

Thus far we have shown that our base-rules and conditions on government provide for a descriptively adequate account of V/2 and related phenomena in German. Moreover, condition (A) is the only choice for a head available in (7); (B) is virtually a logical consequence of the non-configurational V-projection; (C), (D) and (G) are widely accepted parameters or principles in GB-theory; (F) is a rather natural parameter, since it admits the unspecified variable in (7)(i),(consequently, (9) and (15)(i) are grammatical) but it blocks preposition-stranding and (16)(ii):*

(16)(i) Geliebt₁ haben wir ihn [sehr t₁]
       loved      have we   him    much

(ii)*schön₁ war er [sehr t₁]
     beautiful  was    he    much

(E) is close to the opposite of HUP and explains what has to be explained. (H) simply reflects and reinforces that PreF gets its +WH features by feature-percolation,
paragraph would conform to Safir's theory⁴, though many of the ungrammatical examples would be ruled out correctly.

First compare (18) to (19):

(18)(i) [NP die Vorschriften [S₀ [S₁, die₂ φ PRO t₂ zu beachten] [e] [PreF LSB₁]
the regulations which of respecting
er t₁ nicht müde wurde]]
he not tired became

(ii) .. er ... kam in ein (Stadt-) Viertel, [S₀ das₂ [e]
he came to a town area which
er sich t nicht entsinnen konnte [S₁=PostF t₁ φ PRO
he refl not remember could
je t₂ gesehen zu haben]]⁵
ever seen having

(iii)[NP der Vortrag, [S₀ den₂ [e] ich im März 1950
the talk which I in March 1950
... [S₁ t₂ φ PRO t₂ zu halten] die Ehre hatte]
to present the honor had
(19)(i)*[\text{NP} \text{die Vorschriften} \quad {\text{SS}_0} \quad {\text{SS}_1} \quad \text{daß er} \quad t_2 \quad \text{PreF} \quad \text{LSB}]

the regulations which that he beachtet] [e] sie erwarteten]
respects LSB they expected

(ii) (??) Wir suchen uns die Gruppen aus, we choose [refl] the groups (verb. part.)
[\text{SS}_0 \quad \text{mit denen} \quad {\text{e}} \quad \text{wir} \quad t_1 \quad \text{glauben} \quad \text{PreF} \quad \text{LSB}]
with whom we think

[\text{SS}_1 \quad t_2' \quad \text{daß wir} \quad t_2 \quad \text{gemeinsame} \quad \text{PreF} \quad \text{LSB}]
that we common
Sache machen können)] (quoted by Kvam (1980))
thing do can
We choose the groups that we think we cooperate with.

(iii)*[\text{NP} \text{die Vorschriften} \quad {\text{SS}_0} \quad \text{die} \quad e_2 \quad \text{PreF} \quad \text{LSB}]

the regulations which they beachtet] erwarteten]
that he respects expected
The structures of (18) and (19) are exactly parallel in the relevant respects; the only difference concerns the choice of the complementizer $\phi$ in (18) and da$\beta$ in (19). The ungrammaticality of (19)(iii) is due to the base-structure position of a tensed clause within the sentence-bracket. This might be an effect of condition (E), assuming that base-government of a verbal element is so powerful as to evoke the feeling that the embedded finite verb is governed by the matrix-verb.\textsuperscript{6}

(19)(ii) represents an extraction from a tensed $S$ the head of which is governed. In standard German this process seems to be heavily restricted by conditions on the choice of a governor and the category of the moved element. Many speakers do not accept it at all: they strictly conform to principle (I). Some dialects of German, however, are less restrictive in this respect, leaving further room for parametric variation. We have seen that Bavarian permits violations of (I), and, indeed, it is the least restrictive dialect with respect to extractions from tensed $S$:

(20) Da Sepp\textsubscript{1} ham's g'sagt [t\textsubscript{1} da$\beta$ t\textsubscript{1} g'storn is] Joseph have they said -WH that died has

(19)(i) however, is ungrammatical in all dialects; this does not fall out of our principles and might be described by a *[+ REL, da$\beta$] -filter, as long as no other explanation is readily at hand.
Two further observations should be mentioned, which are apt to refute Safir's theory. Safir explicitly denies the possibility of a doubly filled COMP in German (cf. p. 426). Apart from the data discussed so far, we first point out that Bavarian has an optional relative clause complementizer wo, which may coexist with a relative pronoun in PreF:

(21) dea Breiss, dea wo gjodld had the Prussian who COMP yodeled has

The pronoun can be deleted up to certain recoverability conditions (cf. Merkle, p. 148f).7 Secondly, we draw attention to a morphological reflect of the identification of the complementizer-position and the INFL-position in LSB: In Bavarian, all subordinating conjunctions have to agree with a second person subject in the subordinated clause:

(22)(i) Mia san alloans hoamganga,
we have alone gone home

weis ees need kema seids
because+2.pers.pl. you(pl) not come have

(ii) ... obwoisd grād du aiwei dageng
although+2.pers.sg.exactly you always against it
gredd hasd
talked have

Conceptually, it seems to be preferable to generate a complementizer/INFL-position directly in the base, rather than
move INFL to a position adjacent to COMP. (22) would require a doublication of INFL in Safir's approach; according to my suggestions, we simply have to state a Janus-faced agreement rule.

Although many problems have not been discussed so far (and even more might have been overlooked), we feel that the presented data do not leave much room for manœuvre; they simply suggest that our analysis is on the right track.
Footnotes

1) The other topological positions are the middlefield, the right sentence bracket and the post( verbal) field, as illustrated in (i)

(i) Hans schaltete das Licht aus, das
PreF LSB middlefield RSB PreF
Hans switched the light off which

\underline{e ihn blendete}

LSB middlef. RSB
him dazzled

\underline{post( verbal) field}

2) We hereby implicitly identify the position of the complementizer (Safir's COMP) with the potential position of the finite verb (Safir's INFL/V). The same identification can be found in Reis (1980), but without detailed justification. -

The effect of generating an analogue of INFL/V directly in the base dispenses with an explanation of the fact that German has V/2 in main clauses: we would not expect an explanation for the fact that English is SVO in D-structure either, the matrix-subordinate-asymmetry, however, has still to be accounted for.
3) It seems therefore plausible to require a trace for V-movement exempt from ECP, but since government is non-configurational in (6) and government-relations are in any case recoverable from S-structure, the question whether trace or not does not seem very important to us.

4) Neither would (16), (15)(i), the grammatical analogue of (14)(i), (9), (6), and presumably (10)(i) or (iii). With respect to (10)(iii), we required that traces must be governed, in (10)(i), however, the trace would not be governed in Safir's approach.

5) We assume that the extraposed sentence is adjoined to the projection of V^0. Note that in many cases the trace of an extraposed sentential verb-complement can be spelt out as an anaphor (es or dessen; cf. Ulvestad/Bergenholtz (1979)) bound in V^max; the trace of an S in PreF, however, cannot be realized as an overt anaphor. We conclude that V^max is a relevant minimal governing category for binding theory. The peculiarity of constructions like (18)(ii) can be seen in the fact that the trace t_1 cannot be realized as an anaphor, since it has been crossed over by the REL-pronoun. This phenomenon still calls for an explanation.
6) Note that the subordinate clause

(i) (weil) wir [pp daran, daß Ede
because we of it that Ede
Geburtstag hatte] nicht gedacht haben
birthday had not thought have

is marginally acceptable, indicating that the force
of government is weakened or blocked by additional
maximal projections.
Since government of this kind can be eluded by extra-
position, it suggests itself that the optional post-
field of a sentence remains ungoverned. This might
also explains, why successive cyclic extrapolation
from a postfield-position of 5 is impossible: a trace
in this position would not be governed.

7) I have been told that NPs like (i) are grammatical
in Swabian:

(i) das Haus, wo ich den Mann kenne,
the house such that I the man know
wo es besitzt
such that (he)it owns

Assuming that Swabian has a resumptive pronoun strategy
triggered by a deletion of trace in PreF, these cases do
not present any difficulty in our approach. An interme-
diate structure of (i) is (ii):
(ii) das Haus [das_{REL_1} wo ich den Mann

∅

kenne [ t^1_1 wo NP_2 t_1 besitzt]]

REL_2

In order to derive (i), the trace t^1_1 is deleted, t_1 is spelt out as a resumptive pronoun, NP_2 is moved to REL_2 in order to provide the morphological feature REL_2 with a phonetic matrix (= der), and the REL-pronouns are deleted.
References


