

Necessity = Possibility = Necessity. Authoritative Acts on the Common Ground

Imperatives are well-known to show quantificational inhomogeneity: Commands like the one in (1), warnings, wishes, requests and advices are related to necessity, permissions like the one in (2) to possibility. Schwager (2005) proposes that in both cases the imperative operator is a graded necessity operator. In the permission reading this operator does not come with the speaker's wishes as ordering source, as in commands, but with the addressee's wishes as ordering source. In combination with the speaker's authority over the common ground (CG), that is presupposed in imperatives, this results in a revision of CG that leads to a permission interpretation. For instance, in (2) it is presupposed according to CG (i) that the addressee wants to take an apple, (ii) that taking an apple is prohibited by the speaker, (iii) that the addressee wants to please the speaker, which is incompatible with taking an apple. The imperative denotes the proposition that in all those worlds of CG that conform best to the wishes of the addressee the addressee takes an apple. Due to the speaker's authority this proposition becomes part of CG (without negotiation). This produces an inconsistent CG which can be made consistent by removing (ii). The result is a permission.

Schwager argues that the observed effect is due to the specific semantics of the imperative operator which in declaratives might also be related to specific syntactic positions a modal verb might take, such as the sentence-initial position in German (3). (3) is a permission (with exclamative flavour) expressed by a necessity modal. Note, however, that it is not required for the necessity modal to occur in a particular syntactic position, see (4) (also cf. Önnarfors 1997). Furthermore, upon closer scrutiny it turns out that for a quantificational flip-flop effect to arise it is not even required that the modal involved is a necessity modal: (5) and (6) are (declarative) commands that are expressed with a possibility modal. For (5) we propose that the effect can be explained as follows. Before the utterance of the *dürfen*-clause in (5), according to CG the addressee is allowed not to eat the apple, see (7i). We suggest that allowing the addressee not to eat the apple presupposes that the addressee does not want to eat the apple, see (7ii). So the ideal worlds according to the wishes of the addressee are worlds where the addressee does not eat the apple. The *dürfen*-clause in (5) now expresses that it is possible for the addressee to eat the apple. As with the permission reading of the imperative in (2), we assume that the modal here comes with the addressee's wishes as ordering source: according to the speaker there is a world in the addressee's optimal wish-worlds where the addressee eats the apple. Due to the authority of the speaker this meaning is added to CG, which produces an inconsistency in CG because there are no ideal wish-worlds where the addressee eats the apple. This inconsistency can be overcome by removing the permission not to eat the apple, which reduces the options in (7i) to (7ib), which means that $CG \cap \text{eat}(\text{addressee}, \text{apple}) = CG$. As a consequence the only option left for the addressee is to eat the apple, i.e. s/he is commanded to eat the apple. For (6) we assume that the speaker presupposes that the addressee kept quiet because s/he did not want to say anything even though s/he was allowed to say something. From here the reasoning is the same as for (5).

The proposed account relies inter alia on the authority of the speaker. (8) shows that the authoritative speaker at issue can also be the speaker of an authoritative speech act that a third speaker recounts. We assume that this kind of recounting discourse traces the actual development of CG in the earlier speech act sequence (cf. Önnarfors 1997 for a permission case with a necessity modal and a 3rd person subject). (9) shows that in the absence of a (reported) authoritative speaker the command reading does not arise. The infelicity of (9) also shows that an account in terms of irony, which potentially might be considered an alternative for the account proposed above, is not suited to explain the observed effects of quantificational inhomogeneity in sentences with modal verbs because the difference between (8) and (9) cannot reasonably be put down to irony: irony should be available to the reporting speaker as it is to the issuer of the command in the original exchange. So we propose that the irony that some speakers feel is present in examples like (5), (6) and (8) is a consequence rather than the source for the necessity reading expressed in these examples.

Moving on to imperatives with scope-taking elements like focus particles we observe that an imperative like (10) resists a permission reading: it can occur in a context like (11A) but not in a context like (12A). It seems, then, that imperatives with focus particles cannot trigger the CG revision discussed above (for reasons to be explored). Evidence conflicting with this conclusion is provided by a variant of (10), where the focus particle appears before the verb: (13) can occur both in the context of (11A) and in the context of (12A), i.e. receives a command or a permission reading. However, the two readings here can be argued to be due to a real scopal interaction, see (14). Due to its position *only* in (10) cannot scope over \square^{IMP} , whereas in (13) the silent \square^{IMP} -operator can c-command *only* or be c-commanded by it.

- (1) Close the door! (2) Take an apple (if you like)!
- close-the-door(addressee) ◇ take-an-apple(addressee)
- (3) Soll er sich doch einen Apfel nehmen!
shall he REFL PART an apple take
'OK then, so he may just as well take an apple, I don't care.'
- (4) Ich habe dir doch vorhin verboten, das Osterei zu essen. 'Earlier I forbade you to eat the Easter egg.'
[_{CP}[_{CP}da du aber so lieb warst] [_Csollst [_{TP}du das Osterei jetzt essen]]]
since you but so good was shall you the Easter.egg now eat
'But because you've been so good you are allowed to eat the egg now.'
- (5) Ich habe dir doch vorhin erlaubt, den Apfel nicht zu essen. 'Earlier I allowed you not to eat the apple.'
[_{CP}[_{CP}da du aber die ganze Zeit deine dreckigen Finger drauf hattest
since you but the whole time your dirty fingers on.it had
[_Cdarfst [_{TP}du ihn jetzt auch essen]]]
may you him now also eat
'But since you have had your dirty fingers all over it all the time, you must eat it now.'
- (6) Du hast die ganze Zeit nichts gesagt. 'You haven't said anything the whole time.'
Dann kannst du jetzt auch den Mund halten.
then can you now also the mouth hold
'So you should shut up now.'
- (7) (i) (a) $CG \cap \neg \text{eat}(\text{addressee}, \text{apple}) \neq \emptyset$ & (b) $CG \cap \text{eat}(\text{addressee}, \text{apple}) \neq \emptyset$
(ii) $CG \subseteq \text{want}(\neg \text{eat}(\text{addressee}, \text{apple}))$
- (8) Peters Mutter hatte Peter erlaubt, den Apfel nicht zu essen. 'Peter's mother allowed Peter not to eat the apple.'
[_{CP}[_{CP}da er aber die ganze Zeit seine dreckigen Finger drauf hatte
since you but the whole time your dirty fingers on.it had
[_Cdurfte [_{TP}er ihn dann essen]]]
may you him now eat
'But since he had his dirty fingers all over it all the time, he had to eat it in the end.'
- (9) Dem Peter wurde erlaubt den Apfel nicht zu essen. 'Peter was allowed not to eat the apple.'
#Da er den Apfel aber angefasst hatte, durfte er ihn essen.
since he the apple but touched had may he him eat
Intended but not available: 'But since he had touched it he had to eat it.'
Meaning expressed but incoherent: 'But since he had touched it he was allowed to eat it.'
- (10) Paint only the [SMALL]_{Foc} table!
- (11) A: Oh, I feel like painting those tables today.
B: (OK, but) paint only the [SMALL]_{Foc} table!
- (12) A: You've asked me to paint those tables but I'm really tired today.
B: (OK.) #Paint only the [SMALL]_{Foc} table!
- (13) B: (OK, (but)) Only paint the [SMALL]_{Foc} table!
- (14) a. command: □^{IMP} (∇P (you paint the P(table) → P = small))
b. permission: ∇P (□^{IMP} you paint the P(table) → P = small)
= ∇P (P ≠ small → ¬ □^{IMP} you paint the P(table))

References: SCHWAGER, M. (2005). *Interpreting Imperatives*. PhD thesis. Frankfurt (Main).
ÖNNERFORS, O. (1997). *Verb-erst-Deklarativsätze: Grammatik und Pragmatik*. Stockholm: Almqvist & Wiksell Internat.