

## How socio-cognitive parameters trigger constructional variation

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### Abstract:

The article aims to illuminate the widely unrecognized interplay between social cognition and syntax, using the example of Hessian dialects. Research in social cognition and sociology has uncovered central mechanisms as to how people assess their own and others' actions and behaviors. It is suggested that modulating certain parameters in the description of events elicits different attributions on the side of the informants, which in turn are reflected by their preferences for certain grammatical constructions. Initial results in the context of the research project “Syntax of Hessian Dialects (“Syntax hessischer Dialekte” (SyHD))” suggest that there is a high correlation between the controlled setting of the parameters by the experimenter and the choice of a grammatical construction designating the event by the informants. The results thus suggest that socio-cognitive factors as identified by sociology directly bear upon syntactic structures. It is discussed how data about the social cognition–syntax relationship can be collected by indirect means, and what the implications of the absence of areal syntactic variation are.

1. Introduction
2. Underlying theoretical assumptions
  - 2.1 Perception, conceptualization, and symbolization
  - 2.2 Social cognition
  - 2.3. The interplay between social cognition and syntax
3. Data collection
  - 3.1 Method
  - 3.2 Results
4. Discussion and outlook

### 1. Introduction

Linguistic microvariation, and syntactic microvariation in particular, has recently attracted generative as well as typologically (functionally) oriented linguists (Black & Motapanyane 1996, Barbiers et al. 2002, Kortmann 2004, among others). The immediate goal of the former is to find out the geographical distribution of syntactic features, that of the latter is to find “the patterns, loci and limits of syntactic variation” (Barbiers & Cornips 2002: 2) within the language faculty. Both research traditions focus mainly on the variation of syntax in space, i.e., in the horizontal dimension. As Barbiers and Cornips (2002: 2) state, the “main difference between the two approaches lies in the types of explanations provided: functional in the case of the typological approach, and formal in the case of the generative approach.” Two things are remarkable about these developments: First, in self-assessments of the field of dialectology cognitive approaches (i.e., Cognitive Linguistics, as characterized by Geeraerts & Cuyckens 2007, for instance) are hardly ever mentioned, although a “cognitive sociolinguistics”, including also a dialectology, begins to take shape (cf. Kristiansen & Dirven 2008). Second, other dimensions of variation are hardly ever mentioned, i.e., syntax in the vertical dimension, varying relative to social strata, and syntax in the situational dimension, varying in dependence of situational factors.

The phenomenon investigated here requires an account precisely of this latter type: one in which the type of explanation is cognitively (and at the same time functionally) oriented and one that concerns factors of situations at the same time. One aim of the present article is to demonstrate this. To get a glimpse about what is meant by “situational factors”, imagine the situations described below:

(1) You borrowed several glasses from a friend for a family celebration. During the party one of the glasses gets broken by your father Willi who is sick with the flu.

[Sie haben sich von einer Freundin für eine Familienfeier mehrere Gläser geliehen. Durch Willi, Ihren von der Grippe geschwächten Vater, ist bei der Feier eines davon zu Bruch gegangen.]

(2) A boy from the neighborhoods is playing in front of your house where your car is parking. You recognize the boy as Tobias, a boy from humble homes who oftentimes has beaten other children. In the evening, you find the antenna of your car broken.

[Ein Junge aus der Nachbarschaft spielt vor Ihrem Haus, wo Ihr Auto steht. Sie erkennen, dass es Tobias ist, ein Junge aus schlechten Verhältnissen, der schon oft andere Kinder verhauen hat. Am Abend sehen Sie, dass die Antenne von Ihrem Auto abgebrochen ist.]

The idea is that both situations (or better: events) differ in certain parameters while they are similar in others. Now, if some cognizer addressed in these event descriptions was to verbalize the described experience, for instance by reporting it to someone, s/he would presumably prefer specific grammatical constructions for doing so.<sup>1</sup> In (1'a) and (b), and (2'a) and (b), the probably most typical responses for (1) and (2) are given in their standard German forms, respectively.

(1'a) Der Willi hat eins von deinen Gläsern heruntergeworfen.  
 DET.NOM Willi has.3 one.ACC of your.DAT glasses.DAT down-throw.PTCP  
 ‘Willi knocked over one of your glasses’

(1'b) Dem Willi ist eins von deinen Gläsern heruntergefallen.  
 DET.DAT Willi is.3 one.NOM of your.DAT glasses.DAT down-fall.PTCP  
 ‘(It happened to Willi that) one of your glasses broke’

(2'a) Euer Junge hat die Antenne von unserem Auto abgebrochen.  
 DET.NOM boy has.3 DET.ACC antenna of our.DAT car.DAT off-break.PTCP  
 ‘Your boy has broken off the antenna of our car’

(2'b) Eurem Jungen ist die Antenne von unserem Auto abgebrochen.  
 DET.DAT boy is.3 DET.NOM antenna of our.DAT car.DAT off-break.PTCP  
 ‘(It happened to your boy that) the antenna of our car broke off’

Speakers of German intuitively know these constructions very well. They also know the conditions under which they are appropriately uttered. Roughly and pre-theoretically spoken, they would utter (or accept) the (a) variants, if they were ready to ascribe the responsibility for

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<sup>1</sup> “Grammatical construction” shall be characterized here as a pairing of formal clausal elements with schematic semantic notions. These include phrasal categories, morphological cases, verb types/event types, and thematic roles. This characterization is similar though not identical to the usage of the term by Goldberg (1995).

the breaking of the glass or antenna to the involved persons, Willi and Tobias, respectively. By doing so, they impart the rather agentive involvement of the persons in the above events. By uttering (or accepting) the (b) variants, in contrast, speakers would refrain from ascribing responsibility and thereby block an implicature which would make the involved persons, Willi and Tobias, the agents of the respective events. In other words, cognizers construe them as patients (or as exhibiting reduced agentivity) in the respective events. The corresponding formal syntactic differences lie in the case in which the causer appears (dative vs. nominative), the choice of the auxiliary (*be* vs. *have*), the case in which the affected entity appears (nominative vs. accusative) and contingently in the lexicalization of the motion pattern (*fall* vs. *throw*). Despite these differences, the structures are not as divergent as they might seem at first glance. One aspect contributing to the impression of their similarity is the syncretism and phonetic indistinctiveness of the cases of the affected entities (*eins von deinen Gläsern/die Antenne von unserer Auto*). In addition, there are some simple motion patterns and their causative counterparts which have the same lexicalization in German, which makes them overtly indistinguishable, too. One example would be *abgebrochen* ‘broken off’ in (2’a) and (b). Another factor is that in standard German, proper nouns do not have determiners. That they occur with determiners, though, is a rather recent historical development. Construing the sentences without determiners would completely deprive them of their overt case markings.

Coming back to the kind of variation observed and the type of explanation chosen, one can state that generative linguistics investigates syntactic microvariation in space and aims at explaining the observed variation by means of structural explanations. Functional typological linguistics also investigates syntactic variation in space and traces observed variation in part back to considerations of communicative requirements. What I want to do is investigate syntactic variation in the individual in dependence on how it assesses situations. At the same time explanations for this variation are sought in perceptual, conceptual, and communicative requirements. In order to embrace both aspects, a cognitive-functional approach is required. As it will turn out, the functional part can be characterized as being social-pragmatic in nature and it concerns social cognition.

In the next section, I will briefly present those ideas underlying the investigation which concern perception, conceptualization, and symbolization (section 2.1). This shall set the stage for the assumptions concerning social cognition and how they fit into the architecture (section 2.2). In section 2.3 the presumed regularities in the interplay between perception, conceptualization, and social cognition on the one hand, and syntactic structures on the other hand are outlined, and some predictions are formulated which shall be tested empirically. Section 3 introduces the method of data collection employed so far, and what the first results look like. The article concludes with a reflection on the method and the nature of the variation we are talking about.

## **2. Underlying theoretical assumptions<sup>2</sup>**

### **2.1 Perception, conceptualization, and symbolization**

First, I take verbal communication to consist mainly in the encoding and decoding of conceptual structures by means of linguistic structures for the purpose of organizing our living

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<sup>2</sup> These assumptions are being worked out in my doctoral thesis about “perceptual, conceptual, and actional foundations of verb-complement structures” (working title).

and acting together in a shared lifeworld (what one can call “praxis”).<sup>3</sup> Thereby, verbal communication does not only organize but also co-constitute praxis, since each instance of language use is also an act. Depending on the linguist’s purposes the linguistic structures in question can be described as parts of speech on different levels, among which syntactic structures constitute one. When linguistic structures symbolize conceptual contents, this implies a conceptualist view of reference (in the sense of Jackendoff 2002). However, the notion of truth will not be of any concern here. The important point is rather that a linguistic utterance like *Willi hat eins von deinen Gläsern heruntergeworfen*, uttered in the context given in (1) does not refer to the respective event in the world or some possible world, but that the utterance refers to an event in the world as conceptualized by the speaker and/or hearer of that utterance. There are then no immediate correspondences of any sort between linguistic structures and states of affairs in the world. Any utterance is about some state of affairs in the world, or any state of affairs is underlying some utterance only by virtue of being mediated by cognitive activity on the side of a cognizer, either speaker or hearer, whereby cognizing involves speaking or hearing, conceptualizing, and eventually perceiving situations/events.

A natural follow up question is how states of affairs in the world become concepts of states of affairs of someone. This leads to the second assumption, according to which conceptualization is simulated perception (cf. Hartmann 1998, Barsalou 1999).<sup>4</sup> That means, if it is a (complex) concept of the respective event which underlies the utterance *Willi hat eins von deinen Gläsern heruntergeworfen*, as the first assumption says, then it is the simulation of the actual perceptual experience of Willi knocking over one of your glasses which constitutes the conceptualization. That means the interpreter’s evoking the respective concept when hearing the above utterance is as if s/he actually perceived the respective event. The rationale behind this assumption lies in evidence from cognitive psychology and cognitive neuroscience.<sup>5</sup> The conclusion one can draw from these findings is that concepts take the form of image-like structural models. And as experimental results indicate, this simulation even reaches down to the neural level, i.e., perceiving and conceptualizing something cause neural activity in considerably, though not entirely overlapping brain regions (e.g., Damasio 1989).<sup>6</sup> The main difference between perception and conceptualization lies in the fact that conceptualization lacks the stimuli which are present in perception. Therefore, conceptualization can be called a simulation.

Taking together both assumptions, one can conceive of the utterance *Willi hat eins von deinen Gläsern heruntergeworfen* as a speaker’s instruction for a hearer to simulate the perception of the respective event.

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<sup>3</sup> On the notion of lifeworld see Schütz & Luckmann (2003). On the notions of act, action, and praxis see Hartmann (1996, 1998).

<sup>4</sup> This characterization will be revised one more time in section 2.2.

<sup>5</sup> In some famous experiments in which participants should judge on the basis of some visually presented target item whether some visually presented stimuli (skews, reversals or mirror-images of the target item) were instances of the target item type or not, Shepard and Metzler (1971) have shown that “[t]he time required to recognize that two perspective drawings portray objects of the same three-dimensional shape is found to be [...] a linearly increasing function of the angular difference in the portrayed orientations of the two objects [...]” They concluded that their participants must have “mentally rotated” their “percepts” in order to be able to categorize them as instances or non-instances of the target item. Today we know that we cannot only manipulate such percepts in our working memory but also concepts evoked “out of nothing”, i.e., independently of any present stimuli (cf. Farah 1989, Kosslyn & Thompson 2003, Kosslyn et al. 2001, Borst & Kosslyn 2008, Ganis et al. 2004).

<sup>6</sup> A neuro-physiological explanation for these findings can probably be found in the so-called retinotopic mappings from the retina to areas in the visual cortex, i.e., in that the spatial relations between stimuli on the retina are “preserved” in the configuration of neurons in later processing stages and for higher (visual-) cognitive activity (cf. Kosslyn et al. 1993).

However, when taking a closer look on how perception works, matters become slightly more complicated. Imagine one actually perceives the event described above involving Willi and the glass. Most probably one sees it and hears it. What one perceives then is the spatial relations between the “Willi thing”, the “glass thing”, the background in front of which this takes place, and how this relation develops through time, accompanied by certain sounds. We know that these objects, taking the form of light energy, hit the retina and provide the cognizer with something like an image-like map of the stimuli in the visual field (due to retinotopic mappings; cf. Bruce et al. <sup>4</sup>2003). The result of these bottom-up processes, i.e., from the affection of the retina to the building of an image-like model of the stimuli in the visual field, can be called “percept”. Now, if the percept provides the perceiver with such a model of the spatial makeup of the scene, this percept obviously lacks several types of other information. In particular, if we perceive such an event visually and auditorily, we do not know, amongst other things, (i) whether the breaking of the glass happened by Willi’s intention or accidentally, (ii) whether the breaking of the glass constitutes an accomplishment or a misaccomplishment (for instance, in the context of a Russian toast it is – according to the cliché – common practice to smash glasses after having toasted and drunk. Breaking a glass would then count as no misaccomplishment, at least. However, in most other cases it would), (iii) and whether it was forces of the situation which made Willi break the glass (for instance, his sickness) or some stable disposition of Willi’s (he might be an incautious person). In other words, the types of information which the percept of an event lacks concern psychological, contextual, and action-theoretic considerations.

If one takes the characterization of verbal communication as organizing praxes serious, one can estimate the great significance these types of information actually bear for our living together in our lifeworlds. This significance finds its expression in sentences (1’a) and (b) above, which are natural verbal responses to such events, given that one wants to report to someone what s/he has just perceived. What is especially interesting is that (1’a) *Der Willi hat eins von deinen Gläsern heruntergeworfen* allows, or even suggests, an agentive reading, while (2’b) *Dem Willi ist eins von deinen Gläsern heruntergefallen* disallows such a reading. Pulling together these facts with the cognitive psychological considerations makes the crucial point: Both symbolizations may refer to a single event, and both symbolizations may be appropriate descriptions of this event, although (or because) the symbolizations designate conceptual content which is not present in the percept of the event, namely that concerning the agentivity or patientivity (or reduced agentivity) of Willi. This is possible because from a bottom-up perspective in perception, the designated event has a definite spatial layout: Willi stands in some relation to the glass, and both together stand in some relation to the background. This is reflected in both symbolizations. The sentences differ, however, in how the speaker/hearer, assesses the situation with respect to the psychological, contextual, and action-theoretic considerations mentioned above. This leads to the third assumption, according to which the percept of an event is fundamentally underspecified with respect to certain conceptual contents. Perception does not provide the whole information which is present in linguistic symbolizations. The types of information perception lacks must have another origin. The revised characterization of conceptualization is then: conceptualization is simulated perception plus something else. This additional factor is the topic of the next section.

## 2.2 Social cognition

In the previous section it has been demonstrated that our percepts of events are underspecified with respect to psychological, contextual, and action-theoretic considerations, because these types of information are not provided by bottom-up processes in perception. We all know,

however, that our concepts of events and situations, whether memorized or evoked freely, are in fact specified with respect to these matters. Only this “full specification” of our concepts allows us to foresee social and practical consequences of our own and others’ actions. Only if we reason about situations and events using categories like intention, accident, responsibility, credit, blame, praise, or reprimand, we can estimate the consequences of specific actions in specific situations. The crucial question is then how these concepts, which can be summarized under the headline of socio-cognitive concepts, are acquired. As Janich (2001: 28f.) states,

“[w]ith respect to the actions of the persons closely attached to the child that are executed in its presence, the following factors play an important role: demonstration and imitation as well as commentaries on what is demonstrated, corrections of what was imitated inaccurately, praise for accomplishments of the child etc. That means that demonstrating and imitating are verbally conducted by these persons. This attendance when imitating consists in, for example, praise or reprimand, encouragement or correction, in short: a positively or negatively sanctioning commentary. Casually, the child is schooled in apprehending and executing those activities which are attributed to it as accomplishments or misaccomplishments by their closely attached persons. With this, the following appears as a primary and important criterion for the presence of an action: (an) action is what is attributed to the actor as credit or fault by other humans. [...] Positive or negative sanctions therefore refer to success and failure – in the opinion of the sanctioning person.” (My translation).

That means, when children engage in their environments, act on things or interact with one another, these activities are mostly accompanied by attributions of closely attached persons, e.g., parents and carers. An attribution is the linguistically mediated result of categorizing and explaining an observed event in order to arrive at the identification of the reason or cause for that event and to estimate their (social) significance and consequences. By getting praise and reprimand for much of what they do, children learn under what conditions they are attributed credit or blame and for what they will deserve credit and blame in the future. These conditions are manifold: Playing in church has a different status than playing in the kindergarten, crying when being treated medically has another status than crying when being envious of a friend, stepping on one’s foot in a throng has another status than stepping on one’s foot in a dance. In each of these situations the activities in question – playing, crying, and stepping on one’s foot – are judged differently. Belching loudly at a Western European dinner is mostly judged to deserve blame, but in other cultures or at a belching contest it deserves credit (in the opinion of some people, at least). Whether some activity constitutes an accomplishment or a misaccomplishment is therefore not a feature of the activity itself but also of the situation in which it is executed. Importantly, the activity as such, i.e., as observable, is the same. What alters is the context and how people judge it. Children will learn that it is mostly activities that they execute deliberately for which they get credit or blame, and that they will not for activities that simply happened to them. But that need not be the case. At dinner a child may be blamed for belching although that belch “happened to” him/her. The important point is that the authority deciding for what one is to be made responsible is the attributor, and not the child, or performer, of the action (cf. Janich 2006: 80f.). And it is under the verbal attributions of others that the critical concepts are acquired.

Thus, children grow into what one could call attributional praxis which encompasses the habits of making attributions about deeds of others and oneself, and the knowledge about which attributions are appropriate or acceptable in which situations. This knowledge takes mostly the form of implicit knowledge. People know how to make appropriate attributions but they need not be able to explain the precise criteria by which they make their judgements. This is quite similar to the fact that people know how to form grammatical sentences without being able to make the underlying criteria explicit. This is

the task of the linguist. In the same vein, it is the task of research in social cognition and sociology to uncover the mechanisms in attribution which are mostly inaccessible for the layman and -woman.

Before outlining these mechanisms, their role in the overall considerations shall be briefly clarified. It has been argued that the sentences in (1') and (2') encode conceptual content that cannot entirely originate in the bottom-up perception of the events for which these sentences are descriptions ((1) and (2), respectively). Bottom-up perception provides only the spatial layout of events. That means that the socio-cognitive conceptual contents, acquired by participating in sociocultural praxis which is in part an attributional praxis, must supplement in a top-down manner the conceptual contents gained through perception. The socio-cognitive contents encoded in (1') and (2') – which are superficially the agentivity or patientivity (or reduced agentivity) of the involved persons – must therefore be imposed on the spatial core of the underlying events by means of certain criteria used for making attributions. Conceptual structure has therefore a twofold origin, namely perception and sociocultural praxis.

Research in social cognition, a branch of cognitive psychology, and sociology have uncovered crucial mechanisms and factors which govern our attribution performance. They are presented here as the constituents of our socially grounded knowledge which supplements the knowledge gained through perception. There are mainly three factors which determine what kind of attribution someone will make. This is firstly the so-called actor/observer difference (cf. Jones & Nisbett 1972). When some event in which a person is involved is to be assessed by someone, the assessing person is either identical to the person in the event or it is not. That is, the person is either actor in or observer of the event, and assesses its own deed or that of some other person. Now, Jones & Nisbett found out that people assess events/situations differently, depending on whether they are involved in them as actors, or whether some other person was involved in them. That means people tend to make different attributions about a situation like that in (1) above depending on whether they are Willi or Willi is someone else.

The second factor is the accomplishment/misaccomplishment difference. As has been mentioned above it is not an inherent feature of events or their outcomes whether they constitute accomplishments or misaccomplishments. What governs the status of an event with respect to this parameter is mainly norms and encyclopaedic knowledge. While smashing glasses in restaurants would be a misaccomplishment, smashing glasses in a wedding-eve party would not – and is no cliché. Zuckerman (1979, amongst others) has shown that people assess events/situations differently, depending on whether the action or behavior in question constitutes an accomplishment or a misaccomplishment.

The third factor concerns the attitude of the assessing person towards the person in the situation/event in question and can be termed the sympathy/antipathy difference. Since people are not neutral, objective judges of what goes on around them, their assessments of situations/events also depend on whether they feel sympathy or antipathy, or alternatively high or low empathy, towards the involved person (cf. Gould & Sigall 1977, Kuno & Kaburaki 1977 on empathy). That is, differing assessments of the events involving Willi and Tobias can be expected, if the judging person was either emphatic or not with them, respectively.

Every “assessable” event has some value for each of these three parameters. The setting of these parameters is determinative of three other factors which bear great socio-cognitive significance, since they are relevant for organizing our living together. In particular, the setting of the above parameters determines firstly, whether cognizers attribute intentional action or accidental behaviors. An instance of action is given, if someone's deed could have been desisted from from the perspective of the judging person. An instance of behavior is given, if someone is judged to have been unable to

desist from doing something in question. If someone thought Willi could have desisted from breaking the glass, he would probably be led to attribute intentional action to Willi's deed. The parameter setting determines secondly, whether stable dispositions or forces of the situation are involved. The above context (1) specifies that Willi is sick with the flu. Therefore his breaking the glass could have been caused by this situational factor. On the other hand, it is possible that Willi is an incautious person, a stable character trait. The setting of the above parameters determines thirdly, whether someone is assessed to deserve credit or blame.

Although three determining factors and three determined factors could be identified, there is no one-to-one mapping between them, i.e., there cannot be established a straightforward mapping between the single factors. Rather, the setting of the determining parameters as a whole determines the values of the determined factors. This is given in Figure 1 below.

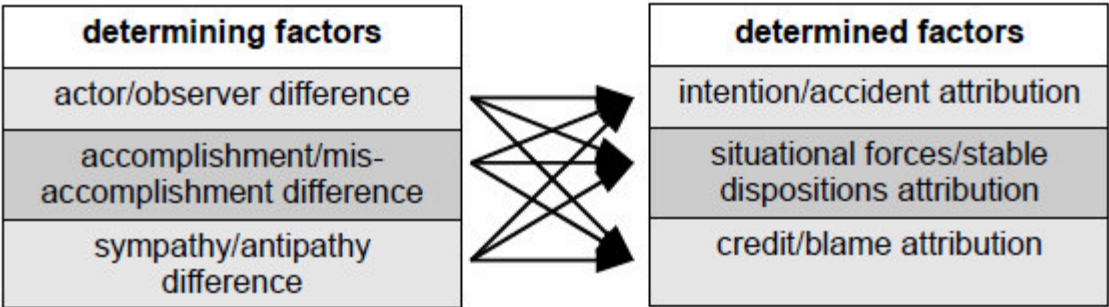


Figure 1: Determining and determined factors in attribution

The possible combinations of the parameter settings in the determining factors are eight in number, following from a 2x2x2 multiplication. The possible attribution scenarios are given in Table 1 below.

scenario	abbreviated relationship between factors	precise relationship
A	actor/ accomplishment/ sympathy – disposition/ intention/ credit	If the perceiver and the causer are <i>identical</i> (high empathy, self-serving effort), the perceiver attributes accomplishments to his own <i>stable dispositions</i> and readily overtakes responsibility for what he has caused, such that he deserves credit. The resulting situation/event is thus categorized to be brought about by an instance of <i>action</i> .
B	actor/ misaccomplishment/ sympathy – situation/ accident/ no blame	If the perceiver and the causer are <i>identical</i> (high empathy, self-serving effort), the perceiver attributes misaccomplishments to the <i>situation</i> and therewith avoids overtaking responsibility for what he has caused, such that he cannot be blamed. The resulting situation/event is thus categorized to be brought about by an instance of <i>behavior</i> .



C	observer/ accomplishment/ sympathy – disposition/ intention/ credit	If the causer is the 3 <sup>rd</sup> person relative to the perceiver and if the latter feels sympathy towards the former, he attributes accomplishments to the other's <i>stable dispositions</i> and therefore attributes to him responsibility for what he has caused, such that the causer deserves credit. The resulting situation/event is thus categorized to be brought about by an instance of <i>action</i> .
D	observer/ misaccomplishment/ sympathy – situation/ accident/ no blame	If the causer is the 3 <sup>rd</sup> person relative to the perceiver and if the latter feels sympathy towards the former, he attributes misaccomplishments to the <i>situation</i> and not to the person's stable dispositions, such that he cannot be attributed responsibility for what he has caused, and cannot be blamed. The resulting situation/event is thus categorized to be brought about by an instance of <i>behavior</i> .
E	observer/ accomplishment/ antipathy – situation/ ?accident/ no credit	If the causer is the 3 <sup>rd</sup> person relative to the perceiver and if the latter feels antipathy towards the former, he attributes accomplishments to the <i>situation</i> and not to the person's stable dispositions, such that the causer cannot be attributed responsibility for what has been caused, and does not deserve credit. The resulting situation/event is thus categorized to be brought about by an instance of <i>behavior</i> .
F	observer/ misaccomplishment/ antipathy – disposition/ intention/ blame	If the causer is the 3 <sup>rd</sup> person relative to the perceiver and if the latter feels antipathy towards the former, he attributes misaccomplishments to the person's <i>stable dispositions</i> and not to the situation, such that the causer can be attributed responsibility for what he has caused, and can be blamed. The resulting situation/event is thus categorized to be brought about by an instance of <i>action</i> .
G	actor/ accomplishment/ antipathy – situation/ accident/ no credit	If the perceiver and the causer are <i>identical</i> and he is self-critical (self-concept withstanding), the perceiver attributes accomplishments to his own <i>factors of the situation</i> such that he does not claim responsibility for what he has caused, such that he does not deserve credit. The resulting situation/event is thus categorized to be brought about by an instance of <i>behavior</i> .

H	actor/ misaccomplishment/ antipathy – disposition/ ? accident/ blame	If the perceiver and the causer are <i>identical</i> and he is self-critical (self-concept withstanding), the perceiver attributes misaccomplishments to his own <i>stable dispositions</i> and readily overtakes responsibility for what he has caused, such that he deserves blame. The resulting situation/event is thus categorized to be brought about by an instance of <i>action</i> .
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*Table 1: Determinants and determinates in attribution, systematized with respect to the determining factors actor/observer difference, accomplishment/misaccomplishment difference, sympathy/antipathy difference, and their determining influence on disposition/situation attribution, intention/accident attribution, and credit/blame attribution.*

The middle column shows the abbreviated setting of the identified determinants. In the first line one finds “actor/accomplishment/sympathy – disposition/intention/credit”. The first three notions correspond to the determining factors. The last three notions correspond to determined factors (see Figure 1). For scenario A that means that a person is the actor in this situation (and not the one observing another person), categorizes his own deed as an accomplishment (and not as misaccomplishment), and sympathizes with himself (instead of being self-critical, i.e., distancing oneself from one’s deed). This leads to some constellation of the determined factors, such that it leads to a disposition attribution (the deed in question is identified to originate in some stable disposition of the person/self, not in some causing factor in the situation), to the attribution of intention to the person/self (instead of identifying it to be accidental), and to the possibility of attributing the person/oneself credit (instead of blame, or neither credit or blame). The other scenarios in the table can be read in a similar manner. It must be strongly emphasized, however, that an outline of the complete mechanisms in attribution is illusory, of course. The present attempt should therefore be conceived of as an approximation.

Strikingly, at the present point the socio-cognitive mechanisms do not at all refer to the concrete, observable event to be judged, i.e., the process of a glass changing its position from the hands of Willi to the ground, thereby changing its state from having full integrity to having no integrity. They concern either Willi or external features of the event of breaking, but not its internal constitution. If the processes depicted in Figure 1 and Table 1 were the whole story, then the event as such (that what can be observed) was irrelevant for the judgment of whether this was an agentive or a patientive (or with reduced agentivity) activity. What is not present in the Figure and Table is the familiarity of the event in question, i.e., its typification or schematization and its eventual embeddedness in action plans. A single activity, e.g., letting go of a milk carton such that it falls into the garbage can, receives different assessments depending on whether an observer knows that this is part of a whole chain of actions that belong to waste management and which requires organized modes of action and participation of different persons. When a child experiences that “putting things into the garbage can” is repeatedly executed by their parents and finally results in the cleanness of the living environment such that there is space for everyday activities, which would be obstructed otherwise, then it will learn that each instance of this event is part of a plan of keeping the living environment clean. In this way the child can abstract from the instances of the event to their schematization, resulting in the concept of an action schema of “putting things into the garbage can” as part of the child’s knowledge.

The cases I have chosen for discussion and data collection – those described in (1) and (2) – are limiting cases in this respect. They are indeterminate with respect to their being part of action plans. There are possible contexts in which breaking glasses and breaking off antennas

are in fact part of action plans. In cases where this is not obvious, the above mechanisms bear the whole weight in attribution.

### 2.3 The interplay between social cognition and syntax

One aspect of verbal utterances like those in (1') and (2') is that they are judgments, or attributions. By uttering one of those sentences one makes a judgment about the things, features, and relations the sentence is about. In doing so one's utterance eventually bears a great social significance in that it concerns questions of success and failure, of reward or sanction. Above, the sentences (1'a) and (b) and (2'a) and (b) were introduced as prototypical verbal responses to the respective situations. It has been mentioned that the (a) sentences allow, or suggest, agentive readings, and that the (b) sentences disallow such readings. The sentence pairs are therefore different strategies of externalizing originally internal attributions by means of verbal utterances. For someone who accepts the (a) sentences as attributions about what the respective situations in (1) and (2) describe it is possible to reward or reprimand the involved persons, i.e., Willi and Tobias, respectively. For someone who accepts the (b) sentences it is impossible to do so – it would count as performative inconsistency. One cannot accept a sentence of the (b) form and then honestly reward or reprimand the person in question. This is because accepting (a) means attributing the responsibility for having brought about the critical event (breaking a glass, breaking off an antenna) to the involved person (Willi, Tobias). The (b) sentences, on the other hand, exonerate the persons from this responsibility.

Treating utterances as attributions, and looking at attributions from a social-pragmatic perspective (as organizing and constituting our living together, when externalized by means of language) suggests that one cannot expect much gradation in the attribution of and exoneration from responsibility. As rational and social beings we aim at the efficient evaluation of the action and behavior of others and our own action possibilities (cf. Moskowitz 2005: 173ff.). In order to be efficient, accuracy and economy (least effort) must necessarily conflict. One important result of this conflict is our “need for closure” (cf. *ibid.*), i.e., the quick categorization of what we experience in terms of those categories that are practically relevant – success and failure in action, responsibility, consequences. Thus, it seems that our need for closure forces us to make “strong”, i.e., categorical attributions. From a linguistic perspective there is the possibility to modify noun phrases and verb phrases by adverbials like *intentional(ly)* or *accidental(ly)* to obtain intermediate levels of responsibility attribution. There is no means, however, to make the (b) variants agentive. To my knowledge, there is also one type of construction which also yields a related effect, namely *let*-constructions, resulting in something like (1'c). (This construction is not applicable to the event concept underlying (2'a) and (b).)

(1'c) *Der Willi hat eins von deinen Gläsern fallen lassen.*  
DET.NOM Willi have.3 one.ACC of your.DAT glasses.DAT fall.INF let.INF

From a social-pragmatic perspective, one who utters (1'c) seems to remain skeptical with respect to the attribution of responsibility in that s/he remains undetermined as to the question of whether Willi is to be made responsible for what he has caused or not. It allows a more agentive reading than (1'b), however.

The (a) variants and the (b) variants of (1) and (2) constitute constructional poles, then: When a speaker wants to express an event with two participants and wants to construe one of them as agentive, then the (a) variants provide the syntactic form for this. There are no syntactic means (at least to my knowledge) which could make some participant more agentive than in

the (a) variants above. Analogously, when a speaker wants to express an event with two participants and wants to construe one of them as exhibiting reduced agentivity or as being a patient, then the (b) variants provide the syntactic form for this. To my knowledge, there are no syntactic means by which this could be accomplished otherwise for the events discussed here.

If this is right, then the (a) and (b) variants are functionally – i.e., with respect to attribution – heavily charged in that there are only two constructions to bear the charge of expressing the outcomes of the eight attribution scenarios identified above. If one looks at these seemingly many-to-few mappings from another perspective, however, it becomes more plausible. What, if the agentive and patientive constructions were not means to express the precise attributions underlying an utterance (as explicated in Table 1) but only the socio-pragmatically most important consequences of these attributions – namely whether someone is to be made responsible for something or not, and whether someone deserves reward or sanctioning, or not? These are binary distinctions, and for making them intersubjectively sharable, two constructions suffice. The characterization of these constructions can now be revised. Until now, they were called “agentive” and “patientive”, for the (a) and (b) variants, respectively. It was not clarified what is meant by “agentive” and “patientive”, although these are hot topics in theories of the syntax-semantics relationship (cf. Dowty 1991, van Valin & Wilkins 1996, Kasper 2008). From the perspective taken here, agents are those participants in events which can be appropriately attributed responsibility according to the mechanisms in attribution outlined above. Patients are those participants in events which cannot be appropriately attributed responsibility according to the mechanisms in attribution outlined above.

In the rightmost columns in Table 1 the workings of attribution are explicated. On the basis of these mechanisms predictions can now be formulated:

- (i) Given the perception of an event, a setting of socio-cognitive parameters (determining and determined factors), from which overtaking or attribution of responsibility follows, results in the preference for an agentive construction as symbolization of the respective event concept.
- (ii) Given the perception of an event, a setting of socio-cognitive parameters (determining and determined factors), from which overtaking or attribution of responsibility does not follow, results in the preference for a patientive construction (or one implying reduced agentivity) as symbolization of the respective event concept.

These predictions concern the abovementioned socio-cognitive parameters only indirectly, insofar as their adequacy is taken for granted in (i) and (ii). I assume that there is sufficient independent (from linguistic considerations) evidence for their significance (cf. Moskowitz 2005 for an overview). The predictions rather aim at linking these parameters – which are part of conceptualization – and grammatical constructions. This is schematically depicted in Figure 2.

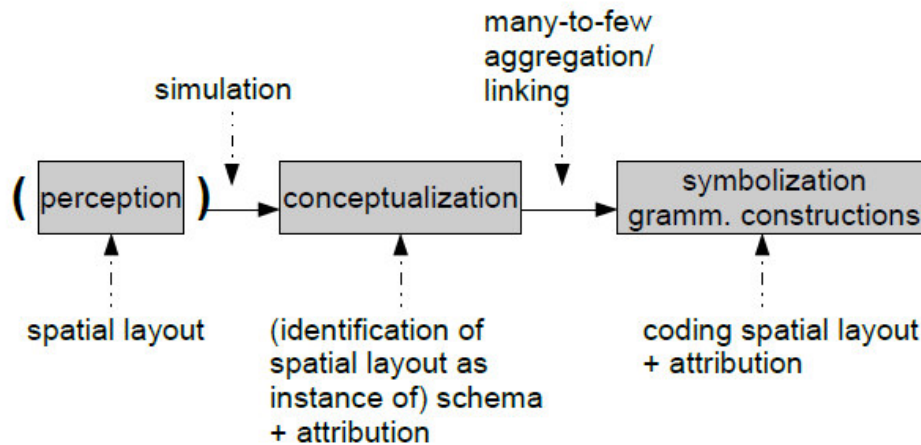


Figure 2: General linking schema (parentheses indicating eventuality of perceptual part)

The following section discusses the method by which these predictions are being tested empirically.

### 3 Data collection

In this section the method and results of the of data collection will be presented.

#### 3.1 Method

The presentation of the method includes the design of the questionnaire and the nature of the SyHD informants

##### 3.1.1 Questionnaire

It follows from the predictions (i) and (ii) that the study aims at uncovering the preferences of informants for types of grammatical constructions (the (a) and (b) variants from section 1) in dependence of the setting of certain socio-cognitive parameters (as explicated in section 2). The method of data collection would thus have to include the collection of syntactic data and the controlled setting of socio-cognitive parameters in the context of some kind of event perception in which these socio-cognitive parameters become principally effective. This raises the question what an appropriate method of data collection could look like. In the evaluation of the appropriate method mainly three criteria played a central role: First, the amount of data should be as great as possible; second, the study has to be practicable in terms of time and effort; third – what is self-evident – the method should be an appropriate means to explore its subject matter.

With respect to syntax the last two decades have brought about fresh and new ideas about how to collect respective data (e.g., Gerritsen 1993, Patocka 1993, Glaser 2000, Bucheli & Glaser 2002, Cornips & Poletto 2005, Kallenborn (this volume)). More specifically, direct and indirect methods have been developed and proposed. The data collection with respect to the subject matter of this paper takes place in the context of the research project “Syntax hessischer Dialekte (SyHD)”<sup>7</sup> (Syntax of Hessian Dialects). In SyHD, an indirect method of

<sup>7</sup> SyHD, funded by the *Deutsche Forschungsgemeinschaft* (DFG), aims at the area-wide investigation, documentation and analysis of the main features of the Hessian dialect syntax. Informants are posted four questionnaires à 30 questions, distributed over two years. After that, direct explorations are planned, too.

collecting syntactic data is currently being employed which has picked up many ideas from the above proposals (mainly those of Glaser) and developed them further (see fn. 9 and 11, Fleischer/Lenz/Kasper [in preparation]).

Regarding the three methodological maxims above, maxims one and two – amount of data and practicability – clearly favor the indirect method. The third maxim rather favors a direct method because the subject matter suggests perceptual data (moving pictures) as stimuli. Though, indirect and direct methods will complement each other, providing a coherent picture when the project is concluded (see fn. 7). It shall be emphasized at this point that the exploration of this subject matter – socio-cognitive parameters and their verbal expression – is the first of this kind, and that further studies must follow. The study reported on here thus serves fathoming out whether the very approach is a promising one, at all. Therefore, judgment tests seemed to be the simplest way to begin with. Promising results in judgment tests would prove the feasibility of extending the study to further question types. In the SyHD questionnaires, a great majority of judgment tests have the structure of the question given in Figure 3.

13. Markus, der Sohn von Bruno, hat zwar schon ein paar Freundinnen gehabt, aber noch nie war es etwas wirklich Ernsthaftes. Bruno ist darüber langsam besorgt und meint:

→ Bitte kreuzen Sie die Sätze an, die Sie in Ihrem Platt/Dialekt sagen können (auch Mehrfachnennungen sind möglich).

a)  Also eich waaß nit, ob hä emol will heirode.

b)  Also eich waaß nit, ob hä emol heirode will.

→ Würden Sie den Satz normalerweise in einer Form sagen, die nicht aufgeführt ist? Wenn „ja“: Bitte notieren Sie hier den Satz so, wie sie ihn normalerweise sagen würden:

c) .....

→ Welcher Satz ist für Sie der natürlichste?

a) , b)  oder c)

Figure 3: Example for judgment test in SyHD questionnaire.<sup>8</sup>

<sup>8</sup> Markus, son of Bruno, has already had a number of girlfriends, but never something serious. Bruno is worried about it by degrees and utters:

→ Please mark those sentences with a cross which you can say in your dialect (multiple answers are permitted):

- (a)  Well, I.NOM.SG know.1SG not whether he.3.NOM.SG sometime want.3SG marry.INF  
‘Well, I don’t know whether he wants to marry sometime.’
- (b)  Well, I.NOM.SG know.1SG not whether he.3.NOM.SG sometime marry.INF want.3SG  
‘Well, I don’t know whether he wants to marry sometime.’

→ Would you utter this sentence in a form that is not mentioned? If “yes”: Please write down the sentence, as you would usually utter it:

(c) .....

→ Which sentence is the most natural one for you?

In the topmost line there is always a brief description of a situation or event. This description serves to give some background information about the contents in the sentences to be judged (here: (a) and (b)), to introduce some discourse referents and to determine an information structure for the sentences to be judged. It also serves to embed these sentences into a type of discourse informants are familiar with from everyday life. Informants are then asked to mark those sentences with a cross which they can say in their dialects.<sup>9</sup> The following sentences are then given in lay notation (since there are no conventionalized graphic systems for dialects).<sup>10</sup> If informants want to give a response that does not occur, they are offered to insert it above the dotted lines (here: (c)). Finally, they are asked to determine the sentence which is the most natural one for them in the given context. Informants have the opportunity here to mark their own sentence, too.

The phenomenon under investigation in the question depicted above is the order of the verbal elements in the right periphery (*will heirote vs. heirote will* ‘wants to marry’). The goal is to find out the geographical distribution of this syntactic feature in Hesse, in correspondence with the functional-typological orientation. It also allows theorizing about “the patterns, loci and limits of syntactic variation” (Barbiers & Cornips 2002: 2) within the language faculty, conforming to the generative orientation. Crucially, this type of question aims at uncovering variation of syntax in space.

Transferring this question type to socio-cognitive parameters and their verbal realization yields a question in which the agentive and patientive constructions in their dialect forms take the positions of the offered responses (a) and (b), yielding something like that in Figure 4. It is left open for now what takes the place of the situation/event description.

7. XX:

→ Bitte kreuzen Sie die Sätze an, die Sie in Ihrem Platt/Dialekt sagen können (auch Mehrfachnennungen sind möglich).

a)  Der Willi hot ans vo deine Gläser runnergeworfe.

b)  Dem Willi es ans vo deine Gläser runnergefalle.

→ Würden Sie den Satz normalerweise in einer Form sagen, die gar nicht aufgeführt ist? Wenn „ja“: Bitte notieren Sie hier den Satz so, wie Sie ihn normalerweise sagen würden:

c)

.....

→ Welcher Satz ist für Sie der natürlichste?

a) , b)  oder c)

Figure 4: Syntactic data collection for socio-cognitive parameters and their verbal realization

(a) , (b) , or (c)

<sup>9</sup> The SyHD questionnaire is methodologically based on that of the “Syntaktischer Atlas der Deutschen Schweiz (SADS)”. The SADS questionnaire was developed further in some respects, however. For a more detailed account of the SyHD method see Fleischer, Kasper & Lenz (in preparation)xxx.

<sup>10</sup> Lay notations are geared to those familiar from the Wenker Atlas (cf. Schmidt & Herrgen 2001ff.).

It is clear now how to collect syntactic data (or, to be more precise, appropriateness judgements) by means of an indirect method. It is not clear how to relate these data to socio-cognitive parameters in judgment questions. There are different possibilities. Respecting the third maxim above – methodical adequacy – would mean to present the informants visual stimuli. Moving pictures are not an option for a questionnaire. Therefore it would have to be a picture story (e.g., Kallenborn [this volume] for an example of this method).<sup>11</sup> Two problems arise: First, because visual stimuli are underspecified with respect to socio-cognitive parameters (see section 2), they would have to be complemented by additional information – namely those concerning the determining factors in attribution: the actor/observer difference, the accomplishment/misaccomplishment difference, and the sympathy/antipathy difference. Second, because informants are older rural persons they are expectably not at all, hardly, or insufficiently familiar with media of this type, even less with mixed media (i.e., picture story plus written specification of socio-cognitive parameters). The easiest way to present them a situation/event description is thus by the written word alone. The task is then to describe them an event for which *Der Willi hat eins von deinen Gläsern runtergeworfen* and *Dem Willi ist eins von deinen Gläsern runtergefallen* are possible verbalizations. Thereby, any specification of socio-cognitively relevant parameters (e.g., the presence of intentional action or accidental behavior) has to be avoided, except the three determining factors in attribution. They must be built into the situation/event description such that the inferences about social cognition are left to informants. The result is given in Figure 5.

7. Sie haben sich von einer Freundin für eine Familienfeier mehrere Gläser geliehen. Durch Willi, Ihren von der Grippe geschwächten Vater, ist bei der Feier eines davon zu Bruch gegangen. Als Sie die Gläser Ihrer Freundin zurückgeben wollen, sagen Sie zu ihr:

→ Bitte kreuzen Sie die Sätze an, die Sie in Ihrem Platt/Dialekt sagen können (auch Mehrfachnennungen sind möglich).

a)  Der Willi hot ans vo deine Gläser runnergeworfe.

b)  Dem Willi es ans vo deine Gläser runnergefallene.

→ Würden Sie den Satz normalerweise in einer Form sagen, die gar nicht aufgeführt ist? Wenn „ja“: Bitte notieren Sie hier den Satz so, wie Sie ihn normalerweise sagen würden:

c) .....

→ Welcher Satz ist für Sie der natürlichste?

a)  , b)  oder c)

Figure 5: Judgment test about socio-cognitive parameters and grammatical constructions in the SyHD questionnaire<sup>12</sup>

Does this type of question meet the third maxim above, i.e., is it an appropriate means to explore the relationship between socio-cognitive parameters and grammatical constructions? If one accepts the above proposals concerning perception, conceptualization, and

<sup>11</sup> Picture stories are used in clinical linguistic contexts in a similar way (e.g., Bastiaanse & Edwards 2004).

<sup>12</sup> Translation of the situation/event description: “You borrowed several glasses from a friend for a family celebration. During the party one of the glasses gets broken by your father Willi who is sick with the flu. When you return the glasses to your friend, you say:”.



symbolization (see section 2.1), the answer can be affirmative: The situation/event description in Figure 5 is *per definitionem* an instruction to conceptualize the respective situation/event, i.e., to simulate its actual perception. Remember that conceptualization and perception are underspecified with respect to socio-cognitive parameters. They must be imposed on the spatial cores of event concepts via top-down processes. Linguistic structures then code spatial and socio-cognitive structures of events (see Figure 2). However, the situation/event description in Figure 5 is structured in such a way that it is neutral with respect to any socio-cognitively relevant inferences. It only contains those socio-cognitive parameters which trigger inferences leading to the attribution or non-attribution of responsibility (see Table 1). In particular, it contains

- the actor/observer difference by specifying that it is “Willi” who causes the event, and not the cognizer, who is therefore **observer**;
- the accomplishment/misaccomplishment difference by specifying that a glass at a party “gets broken” which in the unmarked case constitutes a **misaccomplishment**;
- the sympathy/antipathy (or high/low empathy) difference by specifying that it is the “sick” “father” of the cognizer who caused the event, such that this provokes the cognizer’s **empathy/sympathetic feelings**.

Therefore, we find in the question depicted in Figure 5 an instance of scenario D from Table 1. The relevant socio-cognitive parameters are underlined. They correspond to those in the second column of Table 1. According to the mechanisms of attribution and scenario D, this parameter setting determines the cognizer’s attribution, according to which

- Willi’s deed has happened **accidentally**, and not intentionally,
- Willi’s deed is due to forces of the **situation**, and not to stable dispositions,
- Willi is **not to blame** for what he has done.

As a result, Willi cannot be made responsible for what he has done from the perspective of the cognizer. Therefore the cognizer should choose or prefer a patientive construction (or one exhibiting reduced agentivity) as an appropriate response to the situation/event description, i.e., sentence (b) in the question depicted in Figure 5. This corresponds to prediction (ii) in section 2.3. Construing the situations/events for the other scenarios and building in the respective socio-cognitive parameters works analogously.

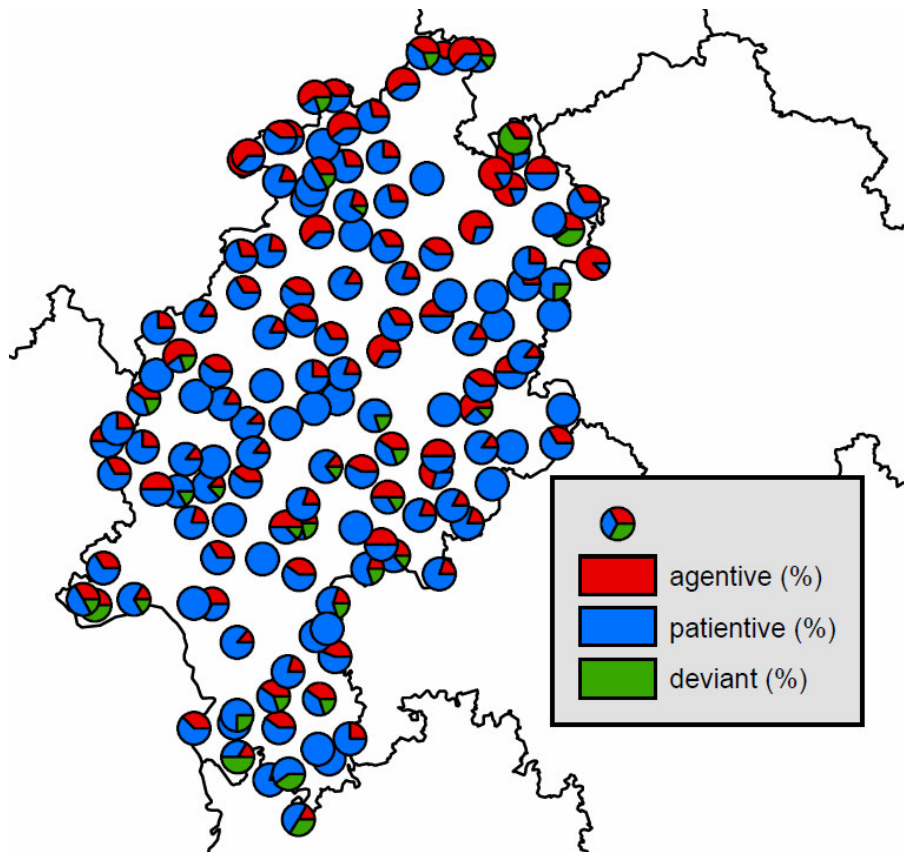
### 3.1.2 Informants

In order to cover the whole Hessian area for the investigation, it was divided into 165 square grids. The aim was to determine one village in each of the square grids. The number of inhabitants should range between 500 and 1,500. In villages with fewer or more inhabitants it seemed rather difficult to find enough dialect competent speakers. There were square grids, however, in which there are only few dialect speakers left, as it seems. In each village from at least four to eight informants were contacted with the help of contact persons (village spokespersons, chairmen and -women of clubs etc.) who know their villages and inhabitants well. Criteria for being an informant in SyHD was their constant non-mobility (informants should not have lived outside their village for a longer time), an age of at least 65, at least one parent raised in the same village, and a manual or rural occupation. Finally, people should be competent dialect speakers of their local dialect. These data were, beside other personal information, double-checked in the questionnaires, dialect competence by means of self-assessments.

Because SyHD is a dialect syntactic project, we refrained from presenting informants standard German stimuli. Therefore, SyHD questionnaires are translated into the dialects of the respective addressees, constituting an attempt to “tap” informants’ dialect competence and not their standard German competence. Which informants of which villages had to get which translated questionnaires was determined on the basis of the dialect classification of Wiesinger (1983). Some of these dialect regions were again split up, based on prior knowledge about the distribution of certain grammatical features. As a result, there can be identified seventeen dialect regions in Hesse, including transition zones: Westfalian (WFL), Eastfalian (OFL), North-Hessian a (NH a), North-Hessian b (NH b), North-Hessian/East Hessian transition zone (NH/OH), North-Hessian/Thuringian transition zone (NH/TH), Central Hessian/North Hessian transition zone (ZH/NH), East-Hessian (OH), Central-Hessian a (ZH a), Central-Hessian b (ZH b), Central Hessian/Moselle-Franconian transition zone a (ZH/MF a), Central Hessian/Moselle-Franconian transition zone b (ZH/MF b), Central Hessian/Moselle-Franconian/Rhine-Franconian transition zone (ZH/MF/RF), Central Hessian/East Hessian/East Franconian transition zone (ZH/OH/OF), Central Hessian/Rhine-Franconian transition zone (ZH/RF), Rhine-Franconian a (RF a), and Rhine-Franconian b (RF b). For each region a separate translation was made on the basis of prior knowledge about their phonological systems and syntactic features, and on local or regional grammars and dictionaries. Later we asked people from the respective villages (who were not informants) to translate the questionnaires into their respective dialects.

### **3.2 Results**

For question no. 7 from the first SyHD questionnaire (as depicted in Figure 5) map 1 below shows the proportions of the agentive, patientive, and of deviant constructions for all responses given in each of the 141 villages in which there were at least three analyzable responses.



Map 1: Proportions of the variants for all responses given in each village

The tables below show the absolute and percentaged results, whereby for practical reasons the analysis is systematized with respect to dialect regions (as classified by Wiesinger 1983). Under the label of a dialect region the results from those villages are gathered that fall within the region borders.

siglum dialect region/ construction type	RF a	RF b	ZH/MF/ RF	ZH/MF a	ZH/MF b	ZH/RF	ZH a	ZH b
a) agentive	12 (24%)	10 (19%)	10 (25%)	6 (33%)	5 (23%)	7 (26%)	16 (24%)	12 (15%)
b) patientive	34 (68%)	67 (77%)	24 (60%)	12 (67%)	15 (68%)	18 (67%)	47 (70%)	64 (81%)
deviant	4 (8%)	7 (14%)	6 (15%)	0 (0%)	2 (9%)	2 (7%)	4 (6%)	3 (4%)
total (100%)	50 (100%)	52 (100%)	40 (100%)	18 (100%)	22 (100%)	27 (100%)	67 (100%)	79 (100%)

siglum dialect region/ construction type	ZH/OH/OF	OH	NH/OH	NH/ZH	NH a	NH b	NH/TH	WFL	OFL
a) agentive	14 (33%)	15 (26%)	4 (12%)	10 (26%)	20 (29%)	12 (30%)	27 (56%)	35 (41%)	12 (48%)
b) patientive	28 (65%)	41 (72%)	28 (85%)	28 (74%)	50 (71%)	27 (67%)	17 (35%)	49 (57%)	11 (44%)
deviant	1 (2%)	1 (2%)	1 (3%)	0 (0%)	0 (0%)	1 (3%)	4 (8%)	2 (2%)	2 (8%)
total (100%)	43 (100%)	57 (100%)	33 (100%)	38 (100%)	70 (100%)	40 (100%)	48 (100%)	86 (100%)	25 (100%)

Table 2: Results from question no. 7 of the first SyHD questionnaire concerning the relation between grammatical constructions and socio-cognitive parameters

The lower table continues the upper one. Given in the uppermost lines are the abbreviations for the dialect regions (see section 3.1.2 for explication). Given in the leftmost column are the classifications of the informants' responses in terms of construction types. Note that the classification "a) agentive" corresponds to the (a) variants in question 7 through all the different questionnaire translations meaning 'Willi knocked over one of your glasses'. "b) patientive" corresponds to the (b) variants in question 7 through all the different questionnaire translations meaning '(It happened to Willi that) one of your glasses broke'. "deviant" responses were those responses by the informants given under (c) in the questionnaires where these responses could not be typified as instances of (a) or (b). Often, informants checked neither (a) nor (b) boxes because of graphical/phonological or lexical reasons. Instead, they gave their own variant under (c). Consequently, these responses differed from the (a) and (b) variants mostly in graphical/phonological or lexical, but not in syntactic/constructional respects. When the informants also marked (c) then as the most natural variant, and if (c) could be classified as an instance of the (a) or (b) construction type, then this (c) response was counted as an instance of (a) or (b), respectively. Only the most natural variants were counted (i.e., the last part, or subquestion, the question no. 7). Results are given in absolute numbers and in percent.

In section 2.3 *let*-constructions were mentioned as some kind of intermediate constructions between the agentive and the patientive pattern. The few instances of *let*-constructions which were given as responses under (c) were classified as deviant here, although there are reasons to classify them as exhibiting reduced agentivity.

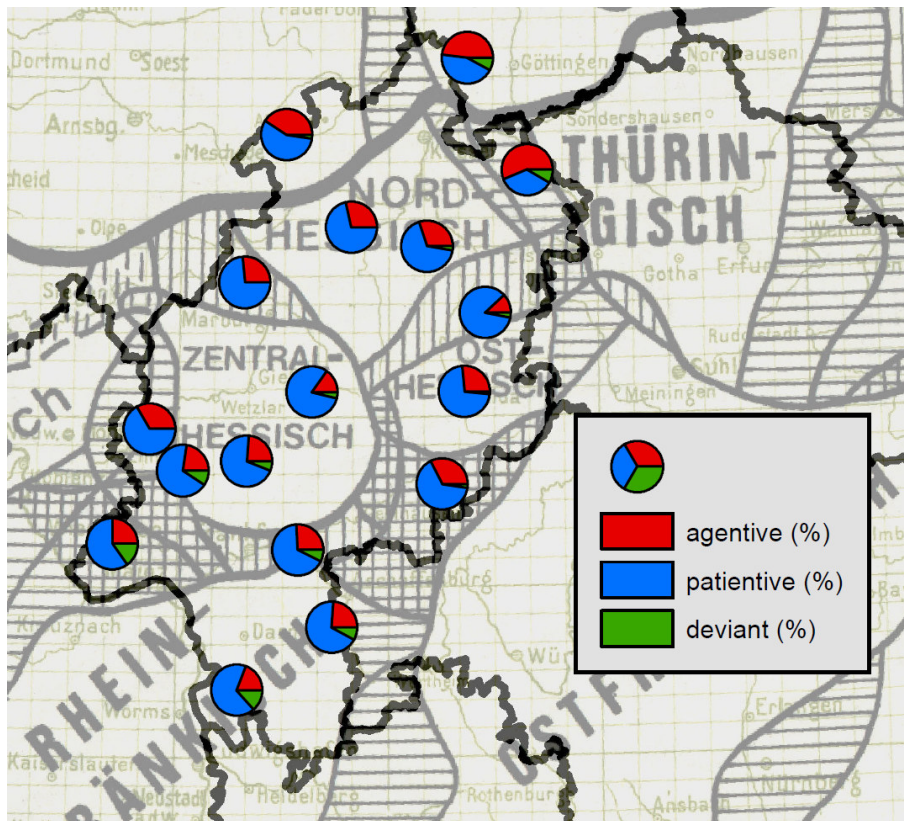
Agentive, patientive, and deviant constructions from one dialect region taken together add up to 100 percent. Percentaged results averaged across all 17 dialect regions show that a majority – about two third (65.8%) of the informants – chose the patientive construction as the most natural variant, between one quarter and one third of the informants preferred the agentive construction (28.8%). Few deviant responses were produced (5,4%). This is given in Table 3. The table also shows that there are high standard deviations in the sample, i.e., the average percentage of (a) and (b) responses differed in dependence on the dialect regions in question

by 10.8% and 11.6%, respectively. In other words, speakers from different dialect regions seem to differ considerably in their preferred construction type.

<b>dialect region/ construction type</b>	<b>averaged across 17 dialect regions</b>	<b>standard deviation</b>
<b>a) agentive</b>	28.8%	10.8%
<b>b) patientive</b>	65.8%	11.6%
<b>deviant</b>	5,4%	4.4%

*Table 3: Averaged results and standard deviation in the sample (17 dialect regions)*

A closer look at the results in Table 2 and at the diagrams in Map 1 reveal that the results from NH/TH, OFL, and maybe WFL (i.e., the northern- and easternmost villages in Map 1) do not fit in the overall pattern, as they show a higher number of (a) responses in relation to the other dialect regions. Why do these three dialect regions not fit the overall picture? When comparing the informants' responses given under (c) in these dialect regions with the constructional variants offered as (a) and (b) in the respective questionnaires, it turned out that exactly these three dialect regions exhibit partial dative/accusative case syncretisms (cf. Shrier 1965 for an overview over case systems in German dialects). That means in many though not all of the villages in these regions there is only the accusative case form left, while there is no independent dative form preserved, as the (c) responses show. The (b) variant of question no. 7 from the questionnaire contains a dative complement in standard German, namely (*dem*) *Willi*. However, informants in these regions were offered questionnaires in which this complement was either translated as an accusative (OFL: '*N Willi*') or as a dative (NH/TH, WFL: both *Dem Willi*). Since these regions exhibit case syncretism only partially, it is clear that a considerable part of the informants were offered (b) variants containing case forms that do not exist in their dialects. They were thus forced to reject these variants on formal-syntactic grounds. Instead, many of them checked the (a) box. Map 2 illustrates these facts. It is the abovementioned dialect regions (the three northern- and easternmost in the map) in which the proportions of the agentive responses is greatest.



Map 2: Proportions of the variants for all responses, systematized with respect to dialect regions

There are good reasons then to partial out the results from these three regions, since the respective results grew out of inadequate questions in the three corresponding questionnaire variants. Because the Hessian region was explored for the first time with this questionnaire (i.e., its 17 variants), the exact case systems of all the dialects were unknown beforehand (Wiesinger's (1983) dialect classification makes use of phonological and (few) morphological, but not of syntactic criteria). In further questionnaires, the present findings about Hessian case systems can be factored in when translating questionnaires. For this time, Table 3 must be revised to Table 4 which shows the results averaged over the 14 dialect regions left, as well as the respective, considerably reduced standard deviations.

dialect region/ construction type	averaged across 14 dialect regions	standard deviation
a) agentive	24,1%	5,79%
b) patientive	83%	6,74%
deviant	5%	4,53%

Table 4: Averaged results and standard deviation in the sample (revised: 14 dialect regions)

Table 4 shows that, given setting D of socio-cognitive parameters, as exemplified in question no. 7 of the SyHD-questionnaire, informants prefer a patientive construction as verbalization of the respective event, just like Table 1 and prediction (ii) say.

#### 4. Discussion and outlook

In the present proposal, cognitive structures are not modeled on syntactic structures, as is often done in linguistics (e.g., Jackendoff 1978). Rather, it starts with two loose ends – syntax and attribution theory – and tries to link them bi-directionally. If the theory is valid, there is independent evidence for the notions on both sides. The validity of the theory, in turn, stands and falls with the results of its empirical investigation. In this article, I have tried to pave the way for an elaborate exploration of the ideas presented in the earlier sections. Much of this exploration still lies in the future. Nevertheless, the present attempt seems promising in several respects. The example chosen in this article – the fate of Willi as only one of eight other scenarios to be tested – has worked out well and in accordance with the theoretical assumptions and predictions. Other scenarios are currently being tested and the results are auspicious.

Of course, some problems also remain, at least until other methods could be applied to the subject-matter to validate the present results. As the examples of the three deviating dialect regions have shown, the quality of the questionnaire and its dialect translations is a crucial condition for the working of the method as a whole. One reason why the speakers from these three regions preferred the (a) variants over the (b) variants more strongly seems to lie in the fact that they have weighted formal-syntactic constraints higher than social-pragmatic ones in their choices. Although they should have preferred the (b) variants because of their social-pragmatic appropriateness, they tended to reject them because of their formal insufficiency and in favor of a syntactically well-formed but social-pragmatically inappropriate variant.

Although this might not be significant, NH/OH speakers show a higher preference for the (b) variants than speakers from all other regions. When looking for the causes, it turned that they were offered a lexeme for the lexicalization of the motion pattern in (a) which is not the predominant one in this region. Again, speakers chose to weight a formal – now lexical – criterion higher than the “softer”, social-pragmatic one.

A further possible source of problems is that the design of the question requires someone to whom the (a) and (b) utterances are addressed. (In the above question involving Willi it is a friend towards which the sentences are uttered.) This is a potential source of preferences which do not correspond to the cognizers’ true attitudes. Again, another “constraint” or criterion could be “heavier” than social-pragmatic appropriateness, namely the power structure – however defined – between the speaker (with whom the informant has to identify) and the one talked to. If it is uneven, the speaker could be led to choose the verbalization of the attribution s/he thinks conforms to the expectation or bias of his/her interlocutor. A solution would be to hold the power structure constant, or even at best, through scenarios.

Coming back to the topic of variation, the results in Table 2 indicate that there is actually no areal, or horizontal, variation. That this is not methodologically induced is proven by the results of Strobel (this volume), who, using the same question type, finds a clear areal distribution of his variables. Presumably, there will also be no social, or vertical, variation with the phenomenon investigated here. Research in the last decades has uncovered some causes of these kinds of variation among which cognitive causes take a prominent place (cf. Trudgill 1986, Lenz 2003, Labov 2010, Schmidt & Herrgen 2011). However, the variation we are dealing with here is of another kind in that linguistic structures do not depend on belonging to a social stratum or to a historical dialect collection, but on the way how attributions are conventionally symbolized linguistically as part of sociocultural praxis.

Ultimately, how we assess situations/events and make attributions correlates with how we aim at maintaining our self-concepts and pursue goals and interests in everyday life. We may have internalized the conventions of how to make linguistic judgments appropriately, but we are not objective in doing this, but try to maintain our own identities and realize our purposes. But this is also the reason why it might be possible to assemble the cognitive causes of the three kinds of variation under a common headlining: The way we speak and don't speak (thereby situating ourselves in the horizontal and vertical dimensions), and the way we make some utterances (i.e., attributions) instead of others (thereby situating us in the social-pragmatic, or diagonal dimension) strongly correlate with the question who we like to be and who we do not like to be.

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