Quantifier Binding Across Sentence Borders Jan Anderssen • University of Massachusetts at Amherst • Department of Linguistics

atak adde bone less is a ninor detail ABAGE bone less is a ninor detail bone bone less is a ninor detail of the set of the site are upwind ; it is far safer and easier to land well into the field arrive , or to make sure that there are at least two people ts only do that check on the first flight of the day . I think the launch is that the pilot has failed to lock them correctly . The them > less decisive and may inhibit them from giving orders or for the landing . 499048: <every at<br="" glider="" make="" pilot="" should="">1 to prevent either under or overshooting . In a field landing in I make in a single-seater glider , I do some sideslipping on the second second seco</every>	acceptability of cross-sentential qua (quantificational subordination).MethodOnline acceptability rating.ConclusionDiscourse relations play a crucial ro of quantificational subordination. In
get was been been been been been been been been	It has traditionally been assumed that the scope of such as 'each' and 'every' is sentence-bound, that pronouns in subsequent sentences. This is motival
Irene Heim (1982): <i>The Semantics of Definite</i> and Indefinite Noun Phrases. PhD dissertation, at fully UMass Amherst. Amherst: GLSA.	(1) [Every dog], came in. *[It], lay down under the
er what they have now , and in what sort of a country we are line rom <every .="" parish="" we=""> must all join in this there is no ro spond and make <each attended="" feel="" felt="" hake<br="" person="" still="" to.he="">at last . 698021: No wonder they like a dram at <every house<br="">for now . 706908: As he was handed back into the Tolbooth , s , rabbis and friends , some the circumcision ceremony , the British National Corpus. Oxford in shes referred to are those of Cod 's providence , prominently f</every></each></every>	However, there are cases that show that this cons- strong, as illustrated by the very natural sounding extracted from the BNC.
Ik blouse , before choosing either the cotton shorts and the year when she had las BNC AOJ: <i>Health promotion and education</i> as imself . 773394: She posed carefully for <each exp<i="">leaflets. The each inhabitant of Trame wears at all times . With the help of Nick came in , a bottle of wine in each hand . We-ell whoops</each>	(2) The menopause is a natural event in [every wo end of [her], periods and [her], capacity to bea
me> if I moved towards them leftwards must be related in the con- e to determine the speed with which it passes across our visual rance-reality dist BNC AOX: Woodworker. Hemel Hempstead: sto w . Why is it> longer : Argus Specialist Publications, 1991 ough headphones and the EEG following <each averaged="" click="" is="" s<br="">problem of graphemic parsing . Another patient could name lett physiology of a piece with the Hobbesian idea of the organist is said something about the nature of the event or object in it al chain further back in the causal chain ; why <every perception<br="">and you had to go down on your knees to scrub the floor and do the second second</every></each>	(3) [Each machine], is probably used by half a do day. Some of them may be less careful with [in machines that can take a battering.
	The contrast between (4a) and (4b) below indicates binding relation depends on the structure of the di
poss-country trains mainly according to whether they were travel more .) 104 Peter Sells (1985): Restrictive and Non-Restrictive y be valuable to modification.CSLI Report No. CSLI-85-28. Het begins with a construction of ode te a swars " (his own title) to herald <each a<br="" arrival="" ode="" of="" te="">lot . It> seems the inevitable and only way to conclude such a problem is how to link them> so that they become like sente nees re , the feet weaving their in-and-out pattern as the arms flick hade some small alteration in the ports de bras so that the o uable in early training because it> helps to stabilise balance larity when setting a classical ballet he> usually balances the</each>	 (4) a. [Every rice-grower], owns a wooden cart. harvests the crop. b. [Every rice-grower], owns a wooden cart. harvest the crop.
Carminati, Maria Nella, Lyn Frazier, and Keith Rayner (2002): Bound Variables and C- Command. <i>Journal of Semantics</i> 19.1. pg. 1-34. which appear to spring from each dancer is physical and ment of the significance of Carbon and Car	In an eye tracking study by Carminati et al., no sig found for conjoined sentence pairs for which a bin command relation, was available, such as (5a) in re
ort climbs on their local hills , and their money will go to pr han scaling a ` sheer cliff ``, as the journalese has it . 1133 e laying hold of a loose stone might have proved fatal . I had and being urged on partly by eagerness in our pursuit , but mo y that it smothered the effort of climbing , and with <every ga<br="">o be several paragraphs into <each actual="" before="" ro<br="" section="" the="">ed them all , although two unsuccessful attempts were made . 11 er in colour . Until a few years ago most wood dyes tended to f ments in your home by fitting new permanent lights , and by doir g more than one prize if you fill in this section but it > is d an sae and each query should be written on a separate piece of ps with a bass broom a fairly new one works best . 1207456: and once again there `s a link with journalism , this time Dost piston moves because every little cog plays its part . Eventual</each></every>	 (5) a. [Every Midwestern farmer], planted corn a endlessly about the weather. b. [Every Midwestern farmer], admitted that [about the weather.
d this skulking novelist told himself in a notebook , as we rec and top-boots like a bussar 's ; and Quixote overlaid for En	The aim of this study is two-fold.
Zapp is simply keeping up with the state of the art ; he > is chambers of stylistic investigation and that equally unventila centage of those attending concerts or recitals will have taken t it would be no longer what had been done before . Newbolt ncludes Pound 's review of Binyon 's translation of the Inferno ze circumstances which justified departing very far indeed from osaics at Monreale) , we> do at last find a Sicilian allusion i one more than Pound insisted on that) , still every artwork th ot the poet ; so that they should read `Ash-Wednesday ``withou ter he> had taken British citizenship . 1400007: In a poem des perament of the teacher : it> represents also , with Pound , a usly impatient that it> too lift itself to a higher level . 141	 First, the study is supposed to show whether quarters a sentence boundary is equally available Second, I want to argue that grammatical instar subordination must satisfy specific discourse re-
	to bind a pronoun in a following sentence.

se relations on the antifier-variable binding

ole for the acceptability particular, causal ficational subordination, e relations.

of universal quantifiers at is, that they may not bind ated by data such as in (1).

table.

straint seems to be too examples in (2) and (3),

woman's], life. It marks the ear children.

ozen different people every [it] than others, so we need

es that the availability of the discourse.

[He], uses it when [he],

*[He] used it yesterday to

gnificant slowdown was nding relation, but no crelation to (5b).

and then [he], worried

[he], worried endlessly

quantifier-variable binding le in German. ances of quantificational requirements. In particular,

elation allows for a quantifier

Causality described whether there was a causal connection between the first and second sentence. Discourse relations are not overtly encoded and have to be inferred from the discourse content and context. However adverbs such as 'thus' or 'lately' were used to indicate a particular discourse connection, e.g. causal or temporal respectively.

Antecedent type classifies the nominal phrases in the first sentence that serve as binders or antecedents for the pronouns in the second sentence. Antecedent NPs were either *referential* — for instance 'my friend Chris', or 'the janitor in our school' — or *quantificational* — for instance 'every patient' or 'every janitor in the area'.

These conditions led to four types of two-sentence discourses that were constructed from sentences as illustrated in (6) below.

Mein Freund Christian, / ... mysed bfriendozerChristian - every day (continued as above)

Er musste sich deswegen / mit viel Papierkram / herumschlagen. he needed self therefore with much paper.stuff beat.around 'For that reason, he needed to bother with a lot of paper work.'

Er hatte aber / auch schon vorher / viel Pech mit Versicherungen. he had but also already before much bad_luck with insurances. 'In addition, he had already had lots of trouble with insurance companies.'

Both quantificational and referential context sentences were continued with either causal or non-causal continuation sentences. For instance, a referential / non-causal discourse from the examples above would for be

' My friend Christian, who broke his leg last year, experienced trouble with his health insurance. In addition, he had already had lots of trouble with insucance companies.

METHOD 24 native speakers of German were presented 4 discourses of each type and 38 filler discourses in randomized order on a computer screen in a frame by frame fashion. Immediately following the last frame, the participants were asked to rate the naturalness of the discourse on a scale from 1 to 5, where a response of 1 indicated a fully natural sounding discourses and 5 an unacceptable one.

Context Sentences quantificational antecedent

referential antecedent

Continuation Sentences causal continuation

non-causal continuation

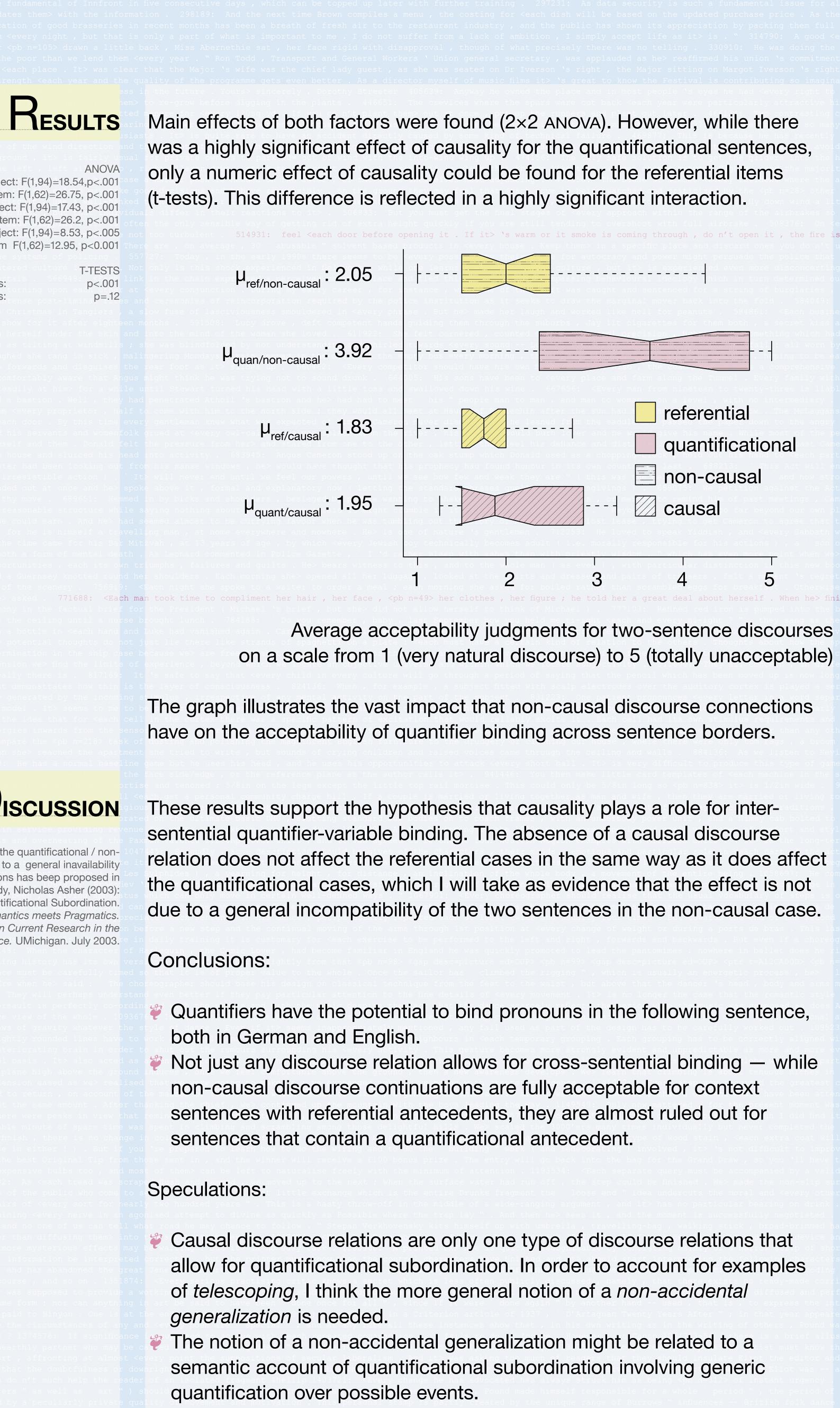


The materials used in this study were two-sentence discourses that differed with respect to two conditions: *causality* and *antecedent type*.

(6) Jeder unserer Patienten, / der sich im letzten Jahr ein Bein brach, / every our.GEN patients who self in.the last year a leg broke hatte Ärger mit der Krankenversicherung.

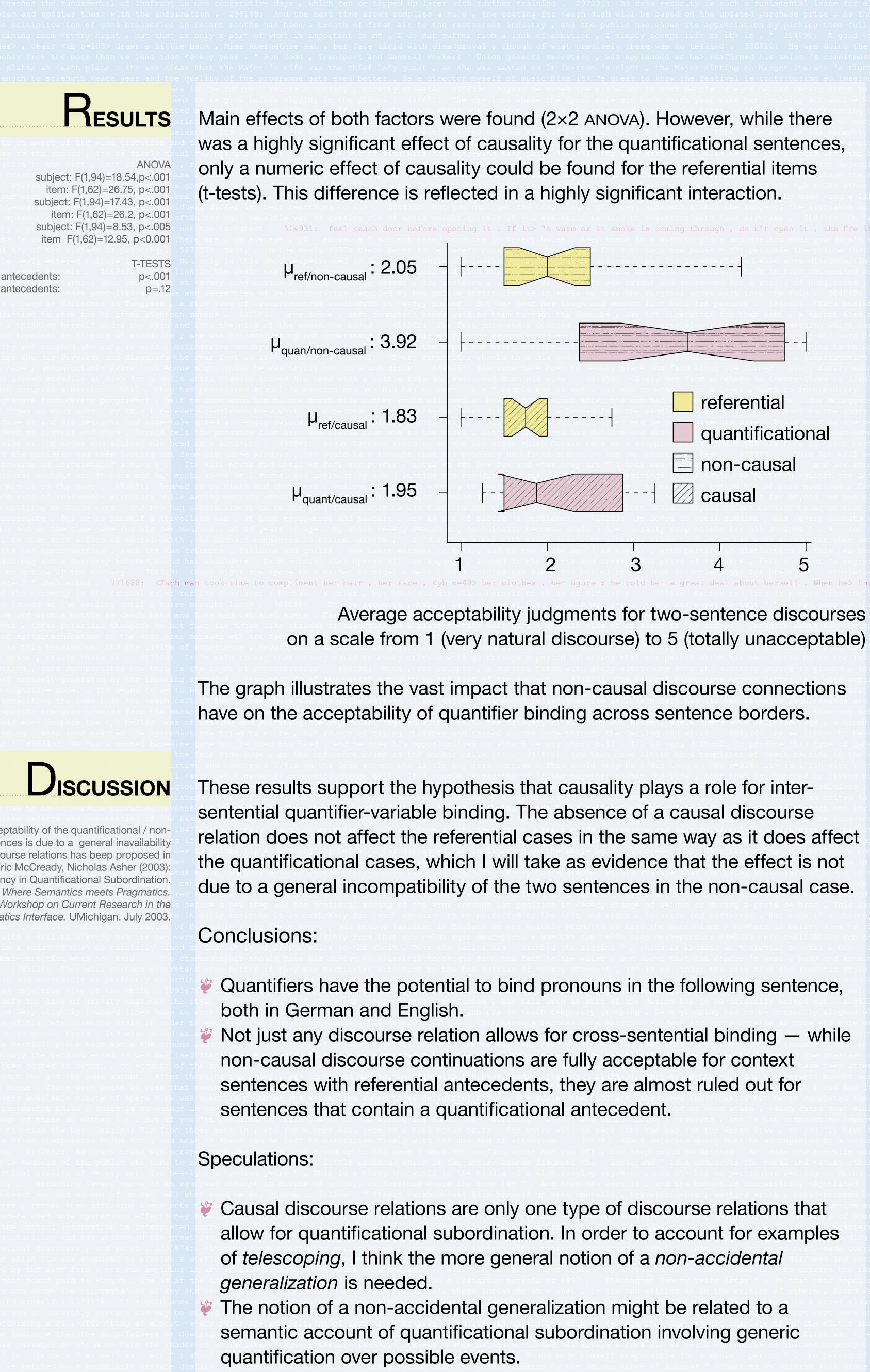
had trouble with the health insurance

'Every patient of ours who broke a leg during the last year experienced trouble with his health insurance.'

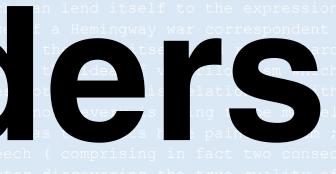


antecedent type

causal/non-causal for quantified antecedents causal/non-causal for referential antecedents:



at the unacceptability of the quantificational, Linton Wang, Eric McCready, Nicholas Asher (20 Information Dependency in Quantificational Subordination. based
presented at: Where Semantics meets Pragmatics. First International Workshop on Current Research in the Semantics-Pragmatics Interface. UMichigan. July 2003.



Every man must have somewhere to go , " Marmeladov tells Raskolnikov who has dropped into the pub after his ` rehearsal " of the murder . ` For there comes a time when he> absolutely must go somewher



Thank you.*

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